

The Thinking Machine Omnibus



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THE THINKING MACHINE OMNIBUS

Jaques Futrelle

2018



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Bibliographical Note

US AUTHOR Jacques Futrelle (1875-1912) published the first "Thinking Machine" story in 1905. In the seven years up to his untimely death aboard the *Titanic* in 1912, he had written at least 50 stories featuring his eccentric detective, plus many more short stories and novellas on other matters which do not feature S F X Van Dusen, "The Thinking Machine". Futrelle's stories were published in various "slick", high-paying magazines of the period, including *Red Book*, the *Saturday Evening Post*, and *Harper's*.

Only one collection of Thinking Machine stories was published in book form in Futrelle's lifetime, *The Thinking Machine*, in 1907. Several books of this title, with varying contents, have been published since. All 50 known Thinking Machine stories are included in this Omnibus, but there may be others not yet re-discovered.

Note that some stories have been presented at various times with different titles. "The Problem of Dressing Room A" is aka "The First Problem", and the chess prologue to that story is sometimes separated and known as "The Thinking Machine". "The Leak" is aka "The Silver Box".

Sources for the stories include *Futrelle.com*, a site which closed in 2016 but which is liberally represented on the *Wayback Machine*; several collections of stories published on *Mobile Read.com*; and an excellent compilation published on line as pdf by the University of Adelaide. An additional reference is *The FictionMags Index*, an on-line index of fiction magazines which contains publication dates of about half of the known Thinking Machine stories.

The stories are not in chronological order here, but "The Problem of Cell 13" was the very first, in the *Boston American* Oct 30-Nov 5 1905; followed by "The Problem of Dressing Room A" in *Associated Sunday Magazine* Sep 2 1906.

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1: The Flaming Phantom

HUTCHINSON Hatch, reporter, stood beside the City Editor's desk, smoking and waiting patiently for that energetic gentleman to dispose of several matters in hand. City Editors always have several matters in hand, for the profession of keeping count of the pulse-beat of the world is a busy one. Finally this City Editor emerged from a mass of other things and picked up a sheet of paper on which he had scribbled some strange hieroglyphics, these representing his interpretation of the art of writing.

"Afraid of ghosts?" he asked.

"Don't know," Hatch replied, smiling a little. "I never happened to meet one."

"Well, this looks like a good story," the City Editor explained. "It's a haunted house. Nobody can live in it; all sorts of strange happenings, demoniacal laughter, groans and things. House is owned by Ernest Weston, a broker. Better jump down and take a look at it. If it is promising, you might spend a night in it for a

Sunday story. Not afraid, are you?"

"I never heard of a ghost hurting anyone," Hatch replied, still smiling a little. "If this one hurts me it will make the story better."

Thus attention was attracted to the latest creepy mystery of a small town by the sea which in the past had not been wholly lacking in creepy mysteries.

Within two hours Hatch was there. He readily found the old Weston house, as it was known, a two-story, solidly built frame structure, which had stood for sixty or seventy years high upon a cliff overlooking the sea, in the center of a land plot of ten or twelve acres. From a distance it was imposing, but close inspection showed that, outwardly, at least, it was a ramshackle affair.

Without having questioned anyone in the village, Hatch climbed the steep cliff road to the old house, expecting to find some one who might grant him permission to inspect it. But no one appeared; a settled melancholy and gloom seemed to overspread it; all the shutters were closed forbiddingly.

There was no answer to his vigorous knock on the front door, and he shook the shutters on a window without result. Then he passed around the house to the back. Here he found a door and dutifully hammered on it. Still no answer. He tried it, and passed in. He stood in the kitchen, damp, chilly and darkened by the closed shutters.

One glance about this room and he went on through a back hall to the dining-room, now deserted, but at one time a comfortable and handsomely furnished place. Its hardwood floor was covered with dust; the chill of disuse was all-pervading. There was no furniture, only the litter which accumulates of its own accord.

From this point, just inside the dining-room door, Hatch began a sort of study of the inside architecture of the place. To his left was a door, the butler's pantry. There was a passage through, down three steps into the kitchen he had just left.

Straight before him, set in the wall, between two windows, was a large mirror, seven, possibly eight, feet tall and proportionately wide. A mirror of the same size was set in the wall at the end of the room to his left. From the dining-room he passed through a wide archway into the next room. This archway made the two rooms almost as one. This second, he presumed, had been a sort of living-room, but here, too, was nothing save accumulated litter, an old-fashioned fireplace and two long mirrors. As he entered, the fireplace was to his immediate left, one of the large mirrors was straight ahead of him and the other was to his right.

Next to the mirror in the end was a passageway of a little more than usual size which had once been closed with a sliding door. Hatch went through this into the reception-hall of the old house. Here, to his right, was the main hall, connected with the reception-hall by an archway, and through this archway he could see a wide, old-fashioned stairway leading up. To his left was a door, of ordinary size, closed. He tried it and it opened. He peered into a big room beyond. This room had been the library. It smelled of books and damp wood. There was nothing here—not even mirrors.

Beyond the main hall lay only two rooms, one a drawing-room of the generous proportions our old folks loved, with its gilt all tarnished and its fancy decorations covered with dust. Behind this, toward the back of the house, was a small parlor. There was nothing here to attract his attention, and he went upstairs. As he went he could see through the archway into the reception-hall as far as the library door, which he had left closed.

Upstairs were four or five roomy suites. Here, too, in small rooms designed for dressing, he saw the owner's passion for mirrors again. As he passed through room after room he fixed the general arrangement of it all in his mind, and later on paper, to study it, so that, if necessary, he could leave any part of the house in the dark. He didn't know but what this might be necessary, hence his care—the same care he had evidenced

downstairs.

After another casual examination of the lower floor, Hatch went out the back way to the barn. This stood a couple of hundred feet back of the house and was of more recent construction. Above, reached by outside stairs, were apartments intended for the servants. Hatch looked over these rooms, but they, too, had the appearance of not having been occupied for several years. The lower part of the barn, he found, was arranged to house half a dozen horses and three or four traps.

"Nothing here to frighten anybody," was his mental comment as he left the old place and started back toward the village. It was three o'clock in the afternoon. His purpose was to learn then all he could of the "ghost," and return that night for developments.

He sought out the usual village bureau of information, the town constable, a grizzled old chap of sixty years, who realized his importance as the whole police department, and who had the gossip and information, more or less distorted, of several generations at his tongue's end.

The old man talked for two hours— he was glad to talk— seemed to have been longing for just such a glorious opportunity as the reporter offered. Hatch sifted out what he wanted, those things which might be valuable in his story.

It seemed, according to the constable, that the Weston house had not been occupied for five years, since the death of the father of Ernest Weston, present owner. Two weeks before the reporter's appearance there Ernest Weston had come down with a contractor and looked over the old place.

"We understand here," said the constable, judicially, "that Mr. Weston is going to be married soon, and we kind of thought he was having the house made ready for his Summer home again."

"Whom do you understand he is to marry?" asked Hatch, for this was news.

"Miss Katherine Everard, daughter of Curtis Everard, a

banker up in Boston," was the reply. "I know he used to go around with her before the old man died, and they say since she came out in Newport he has spent a lot of time with her."

"Oh, I see," said Hatch. "They were to marry and come here?"

"That's right," said the constable. "But I don't know when, since this ghost story has come up."

"Oh, yes, the ghost," remarked Hatch. "Well, hasn't the work of repairing begun?"

"No, not inside," was the reply. "There's been some work done on the grounds— in the daytime— but not much of that, and I kind of think it will be a long time before it's all done."

"What is the spook story, anyway?"

"Well," and the old constable rubbed his chin thoughtfully. "It seems sort of funny. A few days after Mr. Weston was down here a gang of laborers, mostly Italians, came down to work and decided to sleep in the house— sort of camp out— until they could repair a leak in the barn and move in there. They got here late in the afternoon and didn't do much that day but move into the house, all upstairs, and sort of settle down for the night. About one o'clock they heard some sort of noise downstairs, and finally all sorts of a racket and groans and yells, and they just naturally came down to see what it was.

"Then they saw the ghost. It was in the reception-hall, some of 'em said, others said it was in the library, but anyhow it was there, and the whole gang left just as fast as they knew how. They slept on the ground that night. Next day they took out their things and went back to Boston. Since then nobody here has heard from 'em."

"What sort of a ghost was it?"

"Oh, it was a man ghost, about nine feet high, and he was blazing from head to foot as if he was burning up," said the constable. "He had a long knife in his hand and waved it at 'em. They didn't stop to argue. They ran, and as they ran they heard the ghost a-laughing at them."

"I should think he would have been amused," was Hatch's somewhat sarcastic comment. "Has anybody who lives in the village seen the ghost?"

"No; we're willing to take their word for it, I suppose," was the grinning reply, "because there never was a ghost there before. I go up and look over the place every afternoon, but everything seems to be all right, and I haven't gone there at night. It's quite a way off my beat," he hastened to explain.

"A man ghost with a long knife," mused Hatch "Blazing, seems to be burning up, eh? That sounds exciting. Now, a ghost who knows his business never appears except where there has been a murder. Was there ever a murder in that house?"

"When I was a little chap I heard there was a murder or something there, but I suppose if I don't remember it nobody else here does," was the old man's reply. "It happened one Winter when the Westons weren't there. There was something, too, about jewelry and diamonds, but I don't remember just what it was."

"Indeed?" asked the reporter.

"Yes, something about somebody trying to steal a lot of jewelry— a hundred thousand dollars' worth. I know nobody ever paid much attention to it. I just heard about it when I was a boy, and that was at least fifty years ago."

"I see," said the reporter.

THAT NIGHT at nine o'clock, under cover of perfect blackness, Hatch climbed the cliff toward the Weston house. At one o'clock he came racing down the hill, with frequent glances over his shoulder. His face was pallid with a fear which he had never known before and his lips were ashen. Once in his room in the village hotel Hutchinson Hatch, the nerveless young man, lighted a lamp with trembling hands and sat with wide, staring eyes until the dawn broke through the east.

He had seen the flaming phantom.

IT was ten o'clock that morning when Hutchinson Hatch called on Professor Augustus S. F. X. Van Dusen— The Thinking Machine. The reporter's face was still white, showing that he had slept little, if at all. The Thinking Machine squinted at him a moment through his thick glasses, then dropped into a chair.

"Well?" he queried.

"I'm almost ashamed to come to you, Professor," Hatch confessed, after a minute, and there was a little embarrassed hesitation in his speech. "It's another mystery."

"Sit down and tell me about it."

Hatch took a seat opposite the scientist.

"I've been frightened," he said at last, with a sheepish grin; "horribly, awfully frightened. I came to you to know what frightened me."

"Dear me! Dear me!" exclaimed The Thinking Machine. "What is it?"

Then Hatch told him from the beginning the story of the haunted house as he knew it; how he had examined the house by daylight, just what he had found, the story of the old murder and the jewels, the fact that Ernest Weston was to be married. The scientist listened attentively.

"It was nine o'clock that night when I went to the house the second time," said Hatch. "I went prepared for something, but not for what I saw."

"Well, go on," said the other, irritably.

"I went in while it was perfectly dark. I took a position on the stairs because I had been told the— the THING— had been seen from the stairs, and I thought that where it had been seen once it would be seen again. I had presumed it was some trick of a shadow, or moonlight, or something of the kind. So I sat waiting calmly. I am not a nervous man— that is, I never have been until now.

"I took no light of any kind with me. It seemed an interminable time that I waited, staring into the reception-room in the general direction of the library. At last, as I gazed into the

darkness, I heard a noise. It startled me a bit, but it didn't frighten me, for I put it down to a rat running across the floor.

"But after awhile I heard the most awful cry a human being ever listened to. It was neither a moan nor a shriek— merely a— a cry. Then, as I steadied my nerves a little, a figure— a blazing, burning white figure— grew out of nothingness before my very eyes, in the reception— room. It actually grew and assembled as I looked at it."

He paused, and The Thinking Machine changed his position slightly.

"The figure was that of a man, apparently, I should say, eight feet high. Don't think I'm a fool— I'm not exaggerating. It was all in white and seemed to radiate a light, a ghostly, unearthly light, which, as I looked, grew brighter. I saw no face to the THING, but it had a head. Then I saw an arm raised and in the hand was a dagger, blazing as was the figure.

"By this time I was a coward, a cringing, frightened coward— frightened not at what I saw, but at the weirdness of it. And then, still as I looked, the— the THING— raised the other hand, and there, in the air before my eyes, wrote with his own finger— on the very face of the air, mind you— one word: 'Beware!' "

"Was it a man's or woman's writing?" asked The Thinking Machine.

The matter-of-fact tone recalled Hatch, who was again being carried away by fear, and he laughed vacantly.

"I don't know," he said. "I don't know."

"Go on."

"I have never considered myself a coward, and certainly I am not a child to be frightened at a thing which my reason tells me is not possible, and, despite my fright, I compelled myself to action. If the THING were a man I was not afraid of it, dagger and all; if it were not, it could do me no injury.

"I leaped down the three steps to the bottom of the stairs, and while the THING stood there with upraised dagger, with one hand pointing at me, I rushed for it. I think I must have shouted,

because I have a dim idea that I heard my own voice. But whether or not I did I— - "

Again he paused. It was a distinct effort to pull himself together. He felt like a child; the cold, squint eyes of The Thinking Machine were turned on him disapprovingly.

"Then— the THING disappeared just as it seemed I had my hands on it. I was expecting a dagger thrust. Before my eyes, while I was staring at it, I suddenly saw only half of it. Again I heard the cry, and the other half disappeared— my hands grasped empty air.

"Where the THING had been there was nothing. The impetus of my rush was such that I went right on past the spot where the THING had been, and found myself groping in the dark in a room which I didn't place for an instant. Now I know it was the library.

"By this time I was mad with terror. I smashed one of the windows and went through it. Then from there, until I reached my room, I didn't stop running. I couldn't. I wouldn't have gone back to the reception-room for all the millions in the world."

The Thinking Machine twiddled his fingers idly; Hatch sat gazing at him with anxious, eager inquiry in his eyes.

"So when you ran and the— the THING moved away or disappeared you found yourself in the library?" The Thinking Machine asked at last.

"Yes."

"Therefore you must have run from the reception-room through the door into the library?"

"Yes."

"You left that door closed that day?"

"Yes."

Again there was a pause.

"Smell anything?" asked The Thinking Machine.

"No."

"You figure that the THING, as you call it, must have been just about in the door?"

"Yes."

"Too bad you didn't notice the handwriting— that is, whether it seemed to be a man's or a woman's."

"I think, under the circumstances, I would be excused for omitting that," was the reply.

"You said you heard something that you thought must be a rat," went on The Thinking Machine. "What was this?"

"I don't know."

"Any squeak about it?"

"No, not that I noticed."

"Five years since the house was occupied," mused the scientist. "How far away is the water?"

"The place overlooks the water, but it's a steep climb of three hundred yards from the water to the house."

That seemed to satisfy The Thinking Machine as to what actually happened.

"When you went over the house in daylight, did you notice if any of the mirrors were dusty?" he asked.

"I should presume that all were," was the reply. "There's no reason why they should have been otherwise."

"But you didn't notice particularly that some were not dusty?" the scientist insisted.

"No. I merely noticed that they were there."

The Thinking Machine sat for a long time squinting at the ceiling, then asked, abruptly:

"Have you seen Mr. Weston, the owner?"

"No."

"See him and find out what he has to say about the place, the murder, the jewels, and all that. It would be rather a queer state of affairs if, say, a fortune in jewels should be concealed somewhere about the place, wouldn't it?"

"It would," said Hatch. "It would."

"Who is Miss Katherine Everard?"

"Daughter of a banker here, Curtis Everard. Was a reigning belle at Newport for two seasons. She is now in Europe, I think, buying a trousseau, possibly."

"Find out all about her, and what Weston has to say, then come back here," said The Thinking Machine, as if in conclusion. "Oh, by the way," he added, "look up something of the family history of the Westons. How many heirs were there? Who are they? How much did each one get? All those things. That's all."

Hatch went out, far more composed and quiet than when he entered, and began the work of finding out those things The Thinking Machine had asked for, confident now that there would be a solution of the mystery.

That night the flaming phantom played new pranks. The town constable, backed by half a dozen villagers, descended upon the place at midnight, to be met in the yard by the apparition in person. Again the dagger was seen; again the ghostly laughter and the awful cry were heard.

"Surrender or I'll shoot," shouted the constable, nervously.

A laugh was the answer, and the constable felt something warm spatter in his face. Others in the party felt it, too, and wiped their faces and hands. By the light of the feeble lanterns they carried they examined their handkerchiefs and hands. Then the party fled in awful disorder.

The warmth they had felt was the warmth of blood-red blood, freshly drawn.

HATCH found Ernest Weston at luncheon with another gentleman at one o'clock that day. This other gentleman was introduced to Hatch as George Weston, a cousin. Hatch instantly remembered George Weston for certain eccentric exploits at Newport a season or so before; and also as one of the heirs of the original Weston estate.

Hatch thought he remembered, too, that at the time Miss Everard had been so prominent socially at Newport George Weston had been her most ardent suitor. It was rumored that there would have been an engagement between them, but her father objected. Hatch looked at him curiously; his face was clearly a dissipated one, yet there was about him the

unmistakable polish and gentility of the well-bred man of society.

Hatch knew Ernest Weston as Weston knew Hatch; they had met frequently in the ten years Hatch had been a newspaper reporter, and Weston had been courteous to him always. The reporter was in doubt as to whether to bring up the subject on which he had sought out Ernest Weston, but the broker brought it up himself, smilingly.

"Well, what is it this time?" he asked, genially. "The ghost down on the South Shore, or my forth-coming marriage?"

"Both," replied Hatch.

Weston talked freely of his engagement to Miss Everard, which he said was to have been announced in another week, at which time she was due to return to America from Europe. The marriage was to be three or four months later, the exact date had not been set.

"And I suppose the country place was being put in order as a Summer residence?" the reporter asked.

"Yes. I had intended to make some repairs and changes there, and furnish it, but now I understand that a ghost has taken a hand in the matter and has delayed it. Have you heard much about this ghost story?" he asked, and there was a slight smile on his face.

"I have seen the ghost," Hatch answered.

"You have?" demanded the broker.

George Weston echoed the words and leaned forward, with a new interest in his eyes, to listen. Hatch told them what had happened in the haunted house— all of it. They listened with the keenest interest, one as eager as the other.

"By George!" exclaimed the broker, when Hatch had finished. "How do you account for it?"

"I don't," said Hatch, flatly. "I can offer no possible solution. I am not a child to be tricked by the ordinary illusion, nor am I of the temperament which imagines things, but I can offer no explanation of this."

"It must be a trick of some sort," said George Weston.

"I was positive of that," said Hatch, "but if it is a trick, it is the cleverest I ever saw."

The conversation drifted on to the old story of missing jewels and a tragedy in the house fifty years before. Now Hatch was asking questions by direction of The Thinking Machine; he himself hardly saw their purport, but he asked them.

"Well, the full story of that affair, the tragedy there, would open up an old chapter in our family which is nothing to be ashamed of, of course," said the broker, frankly; "still it is something we have not paid much attention to for many years. Perhaps George here knows it better than I do. His mother, then a bride, heard the recital of the story from my grandmother."

Ernest Weston and Hatch looked inquiringly at George Weston, who lighted a fresh cigarette and leaned over the table toward them. He was an excellent talker.

"I've heard my mother tell of it, but it was a long time ago," he began. "It seems, though, as I remember it, that my great-grandfather, who built the house, was a wealthy man, as fortunes went in those days, worth probably a million dollars.

"A part of this fortune, say about one hundred thousand dollars, was in jewels, which had come with the family from England. Many of those pieces would be of far greater value now than they were then, because of their antiquity. It was only on state occasions, I might say, when these were worn, say, once a year.

"Between times the problem of keeping them safely was a difficult one, it appeared. This was before the time of safety deposit vaults. My grandfather conceived the idea of hiding the jewels in the old place down on the South Shore, instead of keeping them in the house he had in Boston. He took them there accordingly.

"At this time one was compelled to travel down the South Shore, below Cohasset anyway, by stagecoach. My grandfather's family was then in the city, as it was Winter, so he made the trip

alone. He planned to reach there at night, so as not to attract attention to himself, to hide the jewels about the house, and leave that same night for Boston again by a relay of horses he had arranged for. Just what happened after he left the stagecoach, below Cohasset, no one ever knew except by surmise."

The speaker paused a moment and relighted his cigarette.

"Next morning my great-grandfather was found unconscious and badly injured on the veranda of the house. His skull had been fractured. In the house a man was found dead. No one knew who he was; no one within a radius of many miles of the place had ever seen him.

"This led to all sorts of surmises, the most reasonable of which, and the one which the family has always accepted, being that my grandfather had gone to the house in the dark, had there met some one who was stopping there that night as a shelter from the intense cold, that this man learned of the jewels, that he had tried robbery and there was a fight.

"In this fight the stranger was killed inside the house, and my great-grandfather, injured, had tried to leave the house for aid. He collapsed on the veranda where he was found and died without having regained consciousness. That's all we know or can surmise reasonably about the matter."

"Were the jewels ever found?" asked the reporter.

"No. They were not on the dead man, nor were they in the possession of my grandfather."

"It is reasonable to suppose, then, that there was a third man and that he got away with the jewels?" asked Ernest Weston.

"It seemed so, and for a long time this theory was accepted. I suppose it is now, but some doubt was cast on it by the fact that only two trails of footsteps led to the house and none out. There was a heavy snow on the ground. If none led out it was obviously impossible that anyone came out."

Again there was silence. Ernest Weston sipped his coffee

slowly.

"It would seem from that," said Ernest Weston, at last, "that the jewels were hidden before the tragedy, and have never been found."

George Weston smiled.

"Off and on for twenty years the place was searched, according to my mother's story," he said. "Every inch of the cellar was dug up; every possible nook and corner was searched. Finally the entire matter passed out of the minds of those who knew of it, and I doubt if it has ever been referred to again until now."

"A search even now would be almost worth while, wouldn't it?" asked the broker.

George Weston laughed aloud.

"It might be," he said, "but I have some doubt. A thing that was searched for twenty years would not be easily found."

So it seemed to strike the others after awhile and the matter was dropped.

"But this ghost thing," said the broker, at last. "I'm interested in that. Suppose we make up a ghost party and go down to-night. My contractor declares he can't get men to work there."

"I would be glad to go," said George Weston, "but I'm running over to the Vandergrift ball in Providence to-night."

"How about you, Hatch?" asked the broker.

"I'll go, yes," said Hatch, "as one of several," he added with a smile.

"Well, then, suppose we say the constable and you and I?" asked the broker; "to-night?"

"All right."

After making arrangements to meet the broker later that afternoon he rushed away— away to The Thinking Machine. The scientist listened, then resumed some chemical test he was making.

"Can't you go down with us to-night?" Hatch asked.

"No," said the other. "I'm going to read a paper before a

scientific society and prove that a chemist in Chicago is a fool. That will take me all evening."

"To-morrow night?" Hatch insisted.

"No— the next night."

This would be on Friday night— just in time for the feature which had been planned for Sunday. Hatch was compelled to rest content with this, but he foresaw that he would have it all, with a solution. It never occurred to him that this problem, or, indeed, that any problem, was beyond the mental capacity of Professor Van Dusen.

Hatch and Ernest Weston took a night train that evening, and on their arrival in the village stirred up the town constable.

"Will you go with us?" was the question.

"Both of you going?" was the counter-question.

"Yes."

"I'll go," said the constable promptly. "Ghost!" and he laughed scornfully. "I'll have him in the lockup by morning."

"No shooting, now," warned Weston. "There must be somebody back of this somewhere; we understand that, but there is no crime that we know of. The worst is possibly trespassing."

"I'll get him all right," responded the constable, who still remembered the experience where blood— warm blood— had been thrown in his face. "And I'm not so sure there isn't a crime."

That night about ten the three men went into the dark, forbidding house and took a station on the stairs where Hatch had sat when he saw the THING— whatever it was. There they waited. The constable moved nervously from time to time, but neither of the others paid any attention to him.

At last the— the THING appeared. There had been a preliminary sound as of something running across the floor, then suddenly a flaming figure of white seemed to grow into being in the reception-room. It was exactly as Hatch had described it to The Thinking Machine.

Dazed, stupefied, the three men looked, looked as the figure raised a hand, pointing toward them, and wrote a word in the air — positively in the air. The finger merely waved, and there, floating before them, were letters, flaming letters, in the utter darkness. This time the word was: "Death."

Faintly, Hatch, fighting with a fear which again seized him, remembered that The Thinking Machine had asked him if the handwriting was that of a man or woman; now he tried to see. It was as if drawn on a blackboard, and there was a queer twist to the loop at the bottom. He sniffed to see if there was an odor of any sort. There was not.

Suddenly he felt some quick, vigorous action from the constable behind him. There was a roar and a flash in his ear; he knew the constable had fired at the THING. Then came the cry and laugh— almost a laugh of derision— he had heard them before. For one instant the figure lingered and then, before their eyes, faded again into utter blackness. Where it had been was nothing— nothing.

The constable's shot had had no effect.

THREE deeply mystified men passed down the hill to the village from the old house. Ernest Weston, the owner, had not spoken since before the— the THING appeared there in the reception-room, or was it in the library? He was not certain— he couldn't have told. Suddenly he turned to the constable.

"I told you not to shoot."

"That's all right," said the constable. "I was there in my official capacity, and I shoot when I want to."

"But the shot did no harm," Hatch put in.

"I would swear it went right through it, too," said the constable, boastfully. "I can shoot."

Weston was arguing with himself. He was a cold-blooded man of business; his mind was not one to play him tricks. Yet now he felt benumbed; he could conceive no explanation of what he had seen. Again in his room in the little hotel, where

they spent the remainder of the night, he stared blankly at the reporter.

"Can you imagine any way it could be done?"

Hatch shook his head.

"It isn't a spook, of course," the broker went on, with a nervous smile; "but— but I'm sorry I went. I don't think probably I shall have the work done there as I thought."

They slept only fitfully and took an early train back to Boston. As they were almost to separate at the South Station, the broker had a last word.

"I'm going to solve that thing," he declared, determinedly. "I know one man at least who isn't afraid of it— or of anything else. I'm going to send him down to keep a lookout and take care of the place. His name is O'Heagan, and he's a fighting Irishman. If he and that – that— THING ever get mixed up together—"

Like a schoolboy with a hopeless problem, Hatch went straight to The Thinking Machine with the latest developments. The scientist paused just long enough in his work to hear it.

"Did you notice the handwriting?" he demanded.

"Yes," was the reply; "so far as I could notice the style of a handwriting that floated in air."

"Man's or woman's?"

Hatch was puzzled.

"I couldn't judge," he said. "It seemed to be a bold style, whatever it was. I remember the capital D clearly."

"Was it anything like the handwriting of the broker— what's-his-name?— Ernest Weston?"

"I never saw his handwriting."

"Look at some of it, then, particularly the capital D's," instructed The Thinking Machine. Then, after a pause: "You say the figure is white and seems to be flaming?"

"Yes."

"Does it give out any light? That is, does it light up a room, for instance?"

"I don't quite know what you mean."

"When you go into a room with a lamp," explained The Thinking Machine, "it lights the room. Does this thing do it? Can you see the floor or walls or anything by the light of the figure itself?"

"No," replied Hatch, positively.

"I'll go down with you to-morrow night," said the scientist, as if that were all.

"Thanks," replied Hatch, and he went away.

Next day about noon he called at Ernest Weston's office. The broker was in.

"Did you send down your man O'Heagan?" he asked.

"Yes," said the broker, and he was almost smiling.

"What happened?"

"He's outside. I'll let him tell you."

The broker went to the door and spoke to some one and O'Heagan entered. He was a big, blue-eyed Irishman, frankly freckled and red-headed— one of those men who look trouble in the face and are glad of it if the trouble can be reduced to a fighting basis. An everlasting smile was about his lips, only now it was a bit faded.

"Tell Mr. Hatch what happened last night," requested the broker.

O'Heagan told it. He, too, had sought to get hold of the flaming figure. As he ran for it, it disappeared, was obliterated, wiped out, gone, and he found himself groping in the darkness of the room beyond, the library. Like Hatch, he took the nearest way out, which happened to be through a window already smashed.

"Outside," he went on, "I began to think about it, and I saw there was nothing to be afraid of, but you couldn't have convinced me of that when I was inside. I took a lantern in one hand and a revolver in the other and went all over that house. There was nothing; if there had been we would have had it out right there. But there was nothing. So I started out to the barn,

where I had put a cot in a room.

"I went upstairs to this room— it was then about two o'clock — and went to sleep. It seemed to be an hour or so later when I awoke suddenly—I knew something was happening. And the Lord forgive me if I'm a liar, but there was a cat— a ghost cat in my room, racing around like mad. I just naturally got up to see what was the matter and rushed for the door. The cat beat me to it, and cut a flaming streak through the night.

"The cat looked just like the thing inside the house— that is, it was a sort of shadowy, waving white light like it might be afire. I went back to bed in disgust, to sleep it off. You see, sir," he apologized to Weston, "that there hadn't been anything yet I could put my hands on."

"Was that all?" asked Hatch, smilingly.

"Just the beginning. Next morning when I awoke I was bound to my cot, hard and fast. My hands were tied and my feet were tied, and all I could do was lie there and yell. After awhile, it seemed years, I heard some one outside and shouted louder than ever. Then the constable come up and let me loose. I told him all about it— and then I came to Boston. And with your permission, Mr. Weston, I resign right now. I'm not afraid of anything I can fight, but when I can't get hold of it— well—"

Later Hatch joined The Thinking Machine. They caught a train for the little village by the sea. On the way The Thinking Machine asked a few questions, but most of the time he was silent, squinting out the window. Hatch respected his silence, and only answered questions.

"Did you see Ernest Weston's handwriting?" was the first of these.

"Yes."

"The capital D's?"

"They are not unlike the one the— the THING wrote, but they are not wholly like it," was the reply.

"Do you know anyone in Providence who can get some information for you?" was the next query.

"Yes."

"Get him by long-distance 'phone when we get to this place and let me talk to him a moment."

Half an hour later The Thinking Machine was talking over the long-distance 'phone to the Providence correspondent of Hatch's paper. What he said or what he learned there was not revealed to the wondering reporter, but he came out after several minutes, only to re-enter the booth and remain for another half an hour.

"Now," he said.

Together they went to the haunted house. At the entrance to the grounds something else occurred to The Thinking Machine.

"Run over to the 'phone and call Weston," he directed. "Ask him if he has a motor-boat or if his cousin has one. We might need one. Also find out what kind of a boat it is— electric or gasoline."

Hatch returned to the village and left the scientist alone, sitting on the veranda gazing out over the sea. When Hatch returned he was still in the same position.

"Well?" he asked.

"Ernest Weston has no motor-boat," the reporter informed him. "George Weston has an electric, but we can't get it because it is away. Maybe I can get one somewhere else if you particularly want it."

"Never mind," said The Thinking Machine. He spoke as if he had entirely lost interest in the matter.

Together they started around the house to the kitchen door.

"What's the next move?" asked Hatch.

"I'm going to find the jewels," was the startling reply.

"Find them?" Hatch repeated.

"Certainly."

They entered the house through the kitchen and the scientist squinted this way and that, through the reception-room, the library, and finally the back hallway. Here a closed

door in the flooring led to a cellar.

In the cellar they found heaps of litter. It was damp and chilly and dark. The Thinking Machine stood in the center, or as near the center as he could stand, because the base of the chimney occupied this precise spot, and apparently did some mental calculation.

From that point he started around the walls, solidly built of stone, stooping and running his fingers along the stones as he walked. He made the entire circuit as Hatch looked on. Then he made it again, but this time with his hands raised above his head, feeling the walls carefully as he went. He repeated this at the chimney, going carefully around the masonry, high and low.

"Dear me, dear me!" he exclaimed, petulantly. "You are taller than I am, Mr. Hatch. Please feel carefully around the top of this chimney base and see if the rocks are all solidly set."

Hatch then began a tour. At last one of the great stones which made this base trembled under his hand.

"It's loose," he said.

"Take it out."

It came out after a deal of tugging.

"Put your hand in there and pull out what you find," was the next order. Hatch obeyed. He found a wooden box, about eight inches square, and handed it to The Thinking Machine.

"Ah!" exclaimed that gentleman.

A quick wrench caused the decaying wood to crumble. Tumbling out of the box were the jewels which had been lost for fifty years.

EXCITEMENT, long restrained, burst from Hatch in a laugh—almost hysterical. He stooped and gathered up the fallen jewelry and handed it to The Thinking Machine, who stared at him in mild surprise.

"What's the matter?" inquired the scientist.

"Nothing," Hatch assured him, but again he laughed.

The heavy stone which had been pulled out of place was

lifted up and forced back into position, and together they returned to the village, with the long-lost jewelry loose in their pockets.

"How did you do it?" asked Hatch.

"Two and two always make four," was the enigmatic reply. "It was merely a sum in addition." There was a pause as they walked on, then: "Don't say anything about finding this, or even hint at it in any way, until you have my permission to do so."

Hatch had no intention of doing so. In his mind's eye he saw a story, a great, vivid, startling story spread all over his newspaper about flaming phantoms and treasure trove—\$100,000 in jewels. It staggered him. Of course he would say nothing about it— even hint at it, yet. But when he did say something about it— "!

In the village The Thinking Machine found the constable.

"I understand some blood was thrown on you at the Weston place the other night?"

"Yes. Blood— warm blood."

"You wiped it off with your handkerchief?"

"Yes."

"Have you the handkerchief?"

"I suppose I might get it," was the doubtful reply. "It might have gone into the wash."

"Astute person," remarked The Thinking Machine. "There might have been a crime and you throw away the one thing which would indicate it— the blood stains."

The constable suddenly took notice.

"By ginger!" he said. "Wait here and I'll go see if I can find it."

He disappeared and returned shortly with the handkerchief. There were half a dozen blood stains on it, now dark brown.

The Thinking Machine dropped into the village drug store and had a short conversation with the owner, after which he disappeared into the compounding room at the back and remained for an hour or more— until darkness set in. Then he came out and joined Hatch, who, with the constable, had been

waiting.

The reporter did not ask any questions, and The Thinking Machine volunteered no information.

"Is it too late for anyone to get down from Boston to-night?" he asked the constable.

"No. He could take the eight o'clock train and be here about half-past nine."

"Mr. Hatch, will you wire to Mr. Weston— Ernest Weston— and ask him to come to-night, sure. Impress on him the fact that it is a matter of the greatest importance."

Instead of telegraphing, Hatch went to the telephone and spoke to Weston at his club. The trip would interfere with some other plans, the broker explained, but he would come. The Thinking Machine had meanwhile been conversing with the constable and had given some sort of instructions which evidently amazed that official exceedingly, for he kept repeating "By ginger!" with considerable fervor.

"And not one word or hint of it to anyone," said The Thinking Machine. "Least of all to the members of your family."

"By ginger!" was the response, and the constable went to supper.

The Thinking Machine and Hatch had their supper thoughtfully that evening in the little village "hotel." Only once did Hatch break this silence.

"You told me to see Weston's handwriting," he said. "Of course you knew he was with the constable and myself when we saw the THING, therefore it would have been impossible — "

"Nothing is impossible," broke in The Thinking Machine. "Don't say that, please."

"I mean that, as he was with us— "

"We'll end the ghost story to-night," interrupted the scientist.

Ernest Weston arrived on the nine-thirty train and had a long, earnest conversation with The Thinking Machine, while Hatch was permitted to cool his toes in solitude. At last they

joined the reporter.

"Take a revolver by all means," instructed The Thinking Machine.

"Do you think that necessary?" asked Weston.

"It isâ€”absolutely," was the emphatic response.

Weston left them after awhile. Hatch wondered where he had gone, but no information was forthcoming. In a general sort of way he knew that The Thinking Machine was to go to the haunted house, but he didn't know when; he didn't even know if he was to accompany him.

At last they started, The Thinking Machine swinging a hammer he had borrowed from his landlord. The night was perfectly black, even the road at their feet was invisible. They stumbled frequently as they walked on up the cliff toward the house, dimly standing out against the sky. They entered by way of the kitchen, passed through to the stairs in the main hall, and there Hatch indicated in the darkness the spot from which he had twice seen the flaming phantom.

"You go in the drawing-room behind here," The Thinking Machine instructed. "Don't make any noise whatever."

For hours they waited, neither seeing the other. Hatch heard his heart thumping heavily; if only he could see the other man; with an effort he recovered from a rapidly growing nervousness and waited, waited. The Thinking Machine sat perfectly rigid on the stair, the hammer in his right hand, squinting steadily through the darkness.

At last he heard a noise, a slight nothing; it might almost have been his imagination. It was as if something had glided across the floor, and he was more alert than ever. Then came the dread misty light in the reception-hall, or was it in the library? He could not say. But he looked, looked, with every sense alert.

Gradually the light grew and spread, a misty whiteness which was unmistakably light, but which did not illuminate anything around it. The Thinking Machine saw it without the tremor of a

nerve; saw the mistiness grow more marked in certain places, saw these lines gradually grow into the figure of a person, a person who was the center of a white light.

Then the mistiness fell away and The Thinking Machine saw the outline in bold relief. It was that of a tall figure, clothed in a robe, with head covered by a sort of hood, also luminous. As The Thinking Machine looked he saw an arm raised, and in the hand he saw a dagger. The attitude of the figure was distinctly a threat. And yet The Thinking Machine had not begun to grow nervous; he was only interested.

As he looked, the other hand of the apparition was raised and seemed to point directly at him. It moved through the air in bold sweeps, and The Thinking Machine saw the word "Death," written in air luminously, swimming before his eyes. Then he blinked incredulously. There came a wild, demoniacal shriek of laughter from somewhere. Slowly, slowly the scientist crept down the steps in his stocking feet, silent as the apparition itself, with the hammer still in his hand. He crept on, on toward the figure. Hatch, not knowing the movements of The Thinking Machine, stood waiting for something, he didn't know what. Then the thing, he had been waiting for happened. There was a sudden loud clatter as of broken glass, the phantom and writing faded, crumbled up, disappeared, and somewhere in the old house there was the hurried sound of steps. At last the reporter heard his name called quietly. It was The Thinking Machine.

"Mr. Hatch, come here."

The reporter started, blundering through the darkness toward the point whence the voice had come. Some irresistible thing swept down upon him; a crashing blow descended on his head, vivid lights flashed before his eyes; he fell. After awhile, from a great distance, it seemed, he heard faintly a pistol shot.

WHEN Hatch, fully recovered consciousness it was with the flickering light of a match in his eyes— a match in the hand of The Thinking Machine, who squinted anxiously at him as he

grasped his left wrist. Hatch, instantly himself again, sat up suddenly.

"What's the matter?" he demanded.

"How's your head?" came the answering question.

"Oh," and Hatch suddenly recalled those incidents which had immediately preceded the crash on his head. "Oh, it's all right, my head, I mean. What happened?"

"Get up and come along," requested The Thinking Machine, tartly. "There's a man shot down here."

Hatch arose and followed the slight figure of the scientist through the front door, and toward the water. A light glimmered down near the water and was dimly reflected; above, the clouds had cleared somewhat and the moon was struggling through.

"What hit me, anyhow?" Hatch demanded, as they went. He rubbed his head ruefully.

"The ghost," said the scientist. "I think probably he has a bullet in him now— the ghost."

Then the figure of the town constable separated itself from the night and approached.

"Who's that?"

"Professor Van Dusen and Mr. Hatch."

"Mr. Weston got him all right," said the constable, and there was satisfaction in his tone. "He tried to come out the back way, but I had that fastened, as you told me, and he came through the front way. Mr. Weston tried to stop him, and he raised the knife to stick him; then Mr. Weston shot. It broke his arm, I think. Mr. Weston is down there with him now."

The Thinking Machine turned to the reporter.

"Wait here for me, with the constable," he directed. "If the man is hurt he needs attention. I happen to be a doctor; I can aid him. Don't come unless I call."

For a long while the constable and the reporter waited. The constable talked, talked with all the bottled-up vigor of days. Hatch listened impatiently; he was eager to go down there where The Thinking Machine and Weston and the phantom

were.

After half an hour the light disappeared, then he heard the swift, quick churning of waters, a sound as of a powerful motor-boat maneuvering, and a long body shot out on the waters.

"All right down there?" Hatch called.

"All right," came the response.

There was again silence, then Ernest Weston and The Thinking Machine came up.

"Where is the other man?" asked Hatch.

"The ghost— where is he?" echoed the constable.

"He escaped in the motor-boat," replied Mr. Weston, easily.

"Escaped?" exclaimed Hatch and the constable together.

"Yes, escaped," repeated The Thinking Machine, irritably.

"Mr. Hatch, let's go to the hotel."

Struggling with a sense of keen disappointment, Hatch followed the other two men silently. The constable walked beside him, also silent. At last they reached the hotel and bade the constable, a sadly puzzled, bewildered and crestfallen man, good-night.

"By ginger!" he remarked, as he walked away into the dark.

Upstairs the three men sat, Hatch impatiently waiting to hear the story. Weston lighted a cigarette and lounged back; The Thinking Machine sat with finger tips pressed together, studying the ceiling.

"Mr. Weston, you understand, of course, that I came into this thing to aid Mr. Hatch?" he asked.

"Certainly," was the response. "I will only ask a favor of him when you conclude."

The Thinking Machine changed his position slightly, readjusted his thick glasses for a long, comfortable squint, and told the story, from the beginning, as he always told a story. Here it is:

"Mr. Hatch came to me in a state of abject, cringing fear and told me of the mystery. It would be needless to go over his examination of the house, and all that. It is enough to say that

he noted and told me of four large mirrors in the dining-room and living-room of the house; that he heard and brought to me the stories in detail of a tragedy in the old house and missing jewels, valued at a hundred thousand dollars, or more.

"He told me of his trip to the house that night, and of actually seeing the phantom. I have found in the past that Mr. Hatch is a cool, level-headed young man, not given to imagining things which are not there, and controls himself well. Therefore I knew that anything of charlatanism must be clever, exceedingly clever, to bring about such a condition of mind in him.

"Mr. Hatch saw, as others had seen, the figure of a phantom in the reception-room near the door of the library, or in the library near the door of the reception-room, he couldn't tell exactly. He knew it was near the door. Preceding the appearance of the figure he heard a slight noise which he attributed to a rat running across the floor. Yet the house had not been occupied for five years. Rodents rarely remain in a house— I may say never— for that long if it is uninhabited. Therefore what was this noise? A noise made by the apparition itself? How?

"Now, there is only one white light of the kind Mr. Hatch described known to science. It seems almost superfluous to name it. It is phosphorus, compounded with Fuller's earth and glycerine and one or two other chemicals, so it will not instantly flame as it does in the pure state when exposed to air. Phosphorus has a very pronounced odor if one is within, say, twenty feet of it. Did Mr. Hatch smell anything? No.

"Now, here we have several facts, these being that the apparition in appearing made a slight noise; that phosphorus was the luminous quality; that Mr. Hatch did not smell phosphorus even when he ran through the spot where the phantom had appeared. Two and two make four; Mr. Hatch saw phosphorus, passed through the spot where he had seen it, but did not smell it, therefore it was not there. It was a reflection he saw— a reflection of phosphorus. So far, so good.

"Mr. Hatch saw a finger lifted and write a luminous word in

the air. Again he did not actually see this; he saw a reflection of it. This first impression of mine was substantiated by the fact that when he rushed for the phantom a part of it disappeared, first half of it, he said— then the other half. So his extended hands grasped only air.

"Obviously those reflections had been made on something, probably a mirror as the most perfect ordinary reflecting surface. Yet he actually passed through the spot where he had seen the apparition and had not struck a mirror. He found himself in another room, the library, having gone through a door which, that afternoon, he had himself closed. He did not open it then.

"Instantly a sliding mirror suggested itself to me to fit all these conditions. He saw the apparition in the door, then saw only half of it, then all of it disappeared. He passed through the spot where it had been. All of this would have happened easily if a large mirror, working as a sliding door, and hidden in the wall, were there. Is it clear?"

"Perfectly," said Mr. Weston.

"Yes," said Hatch, eagerly. "Go on."

"This sliding mirror, too, might have made the noise which Mr. Hatch imagined was a rat. Mr. Hatch had previously told me of four large mirrors in the living- and dining-rooms. With these, from the position in which he said they were, I readily saw how the reflection could have been made.

"In a general sort of way, in my own mind, I had accounted for the phantom. Why was it there? This seemed a more difficult problem. It was possible that it had been put there for amusement, but I did not wholly accept this. Why? Partly because no one had ever heard of it until the Italian workmen went there. Why did it appear just at the moment they went to begin the work Mr. Weston had ordered? Was it the purpose to keep the workmen away?

"These questions arose in my mind in order. Then, as Mr. Hatch had told me of a tragedy in the house and hidden jewels, I

asked him to learn more of these. I called his attention to the fact that it would be a queer circumstance if these jewels were still somewhere in the old house. Suppose some one who knew of their existence were searching for them, believed he could find them, and wanted something which would effectually drive away any inquiring persons, tramps or villagers, who might appear there at night. A ghost? Perhaps.

"Suppose some one wanted to give the old house such a reputation that Mr. Weston would not care to undertake the work of repair and refurnishing. A ghost? Again perhaps. In a shallow mind this ghost might have been interpreted even as an effort to prevent the marriage of Miss Everard and Mr. Weston. Therefore Mr. Hatch was instructed to get all the facts possible about you, Mr. Weston, and members of your family. I reasoned that members of your own family would be more likely to know of the lost jewels than anyone else after a lapse of fifty years.

"Well, what Mr. Hatch learned from you and your cousin, George Weston, instantly, in my mind, established a motive for the ghost. It was, as I had supposed possible, an effort to drive workmen away, perhaps only for a time, while a search was made for the jewels. The old tragedy in the house was a good pretext to hang a ghost on. A clever mind conceived it and a clever mind put it into operation.

"Now, what one person knew most about the jewels? Your cousin George, Mr. Weston. Had he recently acquired any new information as to these jewels? I didn't know. I thought it possible. Why? On his own statement that his mother, then a bride, got the story of the entire affair direct from his grandmother, who remembered more of it than anybody else—who might even have heard his grandfather say where he intended hiding the jewels."

The Thinking Machine paused for a little while, shifted his position, then went on:

"George Weston refused to go with you, Mr. Weston, and Mr. Hatch, to the ghost party, as you called it, because he said

he was going to a ball in Providence that night. He did not go to Providence; I learned that from your correspondent there, Mr. Hatch; so George Weston might, possibly, have gone to the ghost party after all.

"After I looked over the situation down there it occurred to me that the most feasible way for a person, who wished to avoid being seen in the village, as the perpetrator of the ghost did, was to go to and from the place at night in a motor-boat. He could easily run in the dark and land at the foot of the cliff, and no soul in the village would be any the wiser. Did George Weston have a motor-boat? Yes, an electric, which runs almost silently.

"From this point the entire matter was comparatively simple. I knew— the pure logic of it told me— how the ghost was made to appear and disappear; one look at the house inside convinced me beyond all doubt. I knew the motive for the ghost— a search for the jewels. I knew, or thought I knew, the name of the man who was seeking the jewels; the man who had fullest knowledge and fullest opportunity, the man whose brain was clever enough to devise the scheme. Then, the next step to prove what I knew. The first thing to do was to find the jewels."

"Find the jewels?" Weston repeated, with a slight smile.

"Here they are," said The Thinking Machine, quietly.

And there, before the astonished eyes of the broker, he drew out the gems which had been lost for fifty years. Mr. Weston was not amazed; he was petrified with astonishment and sat staring at the glittering heap in silence. Finally he recovered his voice.

"How did you do it?" he demanded. "Where?"

"I used my brain, that's all," was the reply. "I went into the old house seeking them where the owner, under all conditions, would have been most likely to hide them, and there I found them."

"But – but—" stammered the broker.

"The man who hid these jewels hid them only temporarily, or at least that was his purpose," said The Thinking Machine,

irritably. "Naturally he would not hide them in the woodwork of the house, because that might burn; he did not bury them in the cellar, because that has been carefully searched. Now, in that house there is nothing except woodwork and chimneys above the cellar. Yet he hid them in the house, proven by the fact that the man he killed was killed in the house, and that the outside ground, covered with snow, showed two sets of tracks into the house and none out. Therefore he did hide them in the cellar. Where? In the stonework. There was no other place.

"Naturally he would not hide them on a level with the eye, because the spot where he took out and replaced a stone would be apparent if a close search were made. He would, therefore, place them either above or below the eye level. He placed them above. A large loose stone in the chimney was taken out and there was the box with these things."

Mr. Weston stared at The Thinking Machine with a new wonder and admiration in his eyes.

"With the jewels found and disposed of, there remained only to prove the ghost theory by an actual test. I sent for you, Mr. Weston, because I thought possibly, as no actual crime had been committed, it would be better to leave the guilty man to you. When you came I went into the haunted house with a hammer — an ordinary hammer — and waited on the steps.

"At last the ghost laughed and appeared. I crept down the steps where I was sitting in my stocking feet. I knew what it was. Just when I reached the luminous phantom I disposed of it for all time by smashing it with a hammer. It shattered a large sliding mirror which ran in the door inside the frame, as I had thought. The crash startled the man who operated the ghost from the top of a box, giving it the appearance of extreme height, and he started out through the kitchen, as he had entered. The constable had barred that door after the man entered; therefore the ghost turned and came toward the front door of the house. There he ran into and struck down Mr. Hatch, and ran out through the front door, which I afterwards found was not

securely fastened. You know the rest of it; how you found the motor-boat and waited there for him; how he came there, and—
"

"Tried to stab me," Weston supplied. "I had to shoot to save myself."

"Well, the wound is trivial," said The Thinking Machine. "His arm will heal up in a little while. I think then, perhaps, a little trip of four or five years in Europe, at your expense, in return for the jewels, might restore him to health."

"I was thinking of that myself," said the broker, quietly. "Of course, I couldn't prosecute."

"The ghost, then, was—?" Hatch began.

"George Weston, my cousin," said the broker. "There are some things in this story which I hope you may see fit to leave unsaid, if you can do so with justice to yourself."

Hatch considered it.

"I think there are," he said, finally, and he turned to The Thinking Machine. "Just where was the man who operated the phantom?"

"In the dining-room, beside the butler's pantry," was the reply. "With that pantry door closed he put on the robe already covered with phosphorus, and merely stepped out. The figure was reflected in the tall mirror directly in front, as you enter the dining-room from the back, from there reflected to the mirror on the opposite wall in the living-room, and thence reflected to the sliding mirror in the door which led from the reception-hall to the library. This is the one I smashed."

"And how was the writing done?"

"Oh, that? Of course that was done by reversed writing on a piece of clear glass held before the apparition as he posed. This made it read straight to anyone who might see the last reflection in the reception-hall."

"And the blood thrown on the constable and the others when the ghost was in the yard?" Hatch went on.

"Was from a dog. A test I made in the drug store showed

that. It was a desperate effort to drive the villagers away and keep them away. The ghost cat and the tying of the watchman to his bed were easily done."

All sat silent for a time. At length Mr. Weston arose, thanked the scientist for the recovery of the jewels, bade them all good-night and was about to go out. Mechanically Hatch was following. At the door he turned back for the last question.

"How was it that the shot the constable fired didn't break the mirror?"

"Because he was nervous and the bullet struck the door beside the mirror," was the reply. "I dug it out with a knife. Good-night."

2: The Great Auto Mystery

WITH a little laugh of sheer light-heartedness on her lips and a twinkle in her blue eyes, Marguerite Melrose bound on a grotesque automobile mask, and stuffed the last strand of her recalcitrant hair beneath her veil. The pretty face was hidden from mouth to brow; and her curls were ruthlessly imprisoned under a cap held in place by the tightly tied veil.

"It's perfectly hideous, isn't it?" she demanded of her companions.

Jack Curtis laughed.

"Well," he remarked, quizzically, "it's just as well that we know you are pretty."

"We could never discover it as you are now," added Charles Reid. "Can't see enough of your face to tell whether you are white or black."

The girl's red lips were pursed into a pout, which ungraciously hid her white teeth, as she considered the matter seriously.

"I think I'll take it off," she said at last.

"Don't," Curtis warned her. "On a good road The Green

Dragon only hits the tall places."

"Tear your hair off," supplemented Reid. "When Jack lets her loose it's just a pszzzzt!— and wherever you're going you're there."

"Not on a night as dark as this?" protested the girl, quickly.

"I've got lights like twin locomotives," Curtis assured her, smilingly. "It's perfectly safe. Don't get nervous."

He tied on his own mask with its bleary goggles, while Reid did the same. The Green Dragon, a low, gasoline car of racing build, stood panting impatiently, awaiting them at a side door of the hotel. Curtis assisted Miss Melrose into the front seat and climbed in beside her, while Reid sat behind in the tonneau. There was a preparatory quiver, the car jerked a little and then began to move.

The three persons in it were Marguerite Melrose, an actress who had attracted attention in the West five years before by her great beauty and had afterwards, by her art, achieved a distinct place; Jack Curtis, a friend since childhood, when both lived in San Francisco and attended the same school, and Charles Reid, his chum, son of a mine owner at Denver.

The unexpected meeting of the three in Boston had been a source of mutual pleasure. It had been two years since they had seen one another in Denver, where Miss Melrose was playing. Now she was in Boston, pursuing certain vocal studies before returning West for her next season.

Reid was in Boston to lay siege to the heart of a young woman of society, Miss Elizabeth Dow, whom he first met in San Francisco. She was only nineteen years old, but despite this he had begun a siege and his ardor had never cooled, even after Miss Dow returned East. In Boston, he had heard, she looked with favor upon another man, Morgan Mason, poor but of excellent family, and frantically Reid had rushed, like Lochinvar out of the West, to find the rumor true.

Curtis was one who never had anything to do save seek excitement in a new and novel way. He had come East with Reid.

They had been together constantly since their arrival in Boston. He was of a different type from Reid in that his wealth was distinctly a burden, a thing which left him with nothing to do, and opened illimitable possibilities of dissipation. The pace he led was one which caused other young men to pause and think.

Warm-hearted and perfectly at home with both Curtis and Reid, Miss Melrose, the actress, frequently took occasion to scold them. It was charming to be scolded by Miss Melrose, so much so in fact that it was worth while sinning again. Since she had appeared on the horizon Curtis had devoted a great deal of time to her; Reid had his own difficulties trying to make Miss Dow change her mind.

The Green Dragon with its three passengers ran slowly down from the Hotel Yarmouth, where Miss Melrose was stopping, toward the Common, twisting and winding tortuously through the crowd of vehicles. It was half-past six o'clock in the evening.

"Cut across here to Commonwealth Avenue," Miss Melrose suggested. She remembered something and her bright blue eyes sparkled beneath the disfiguring mask. "I know a delightful old-fashioned inn out this way. It would be an ideal place to stop for supper. I was there once five years ago when I was in Boston."

"How far?" asked Reid.

"Fifteen or twenty miles," was the reply.

"Right," said Curtis. "Here we go."

Soon after they were skimming along Commonwealth Avenue, which at that time of day is practically given over to automobilists, past the Vendome, the Somerset and on over the flat, smooth road. It was perfectly light now, because the electric lights were about them; but there was no moon above, and once in the country it would be dark going.

Curtis was intent on his machine; Reid was thoughtful for a time, but after awhile leaned over and talked to Miss Melrose.

"I heard something to-day that might interest you," he remarked.

"What is it?" she asked.

"Don MacLean is in Boston."

"I heard that," she replied, casually.

"Who is he?" asked Curtis.

"A man who is frantically in love with Marguerite," said Reid, with a smile.

"Charlie," the girl reproved, and a flush crept into her face.

"It was never anything very serious."

Curtis looked at her curiously for a moment, then his eyes turned again to the road ahead.

"I don't suppose it's very serious if a man proposes to a girl seven times, is it?" Reid asked, banteringly.

"Did he do that?" asked Curtis, quickly.

"He merely made a fool of himself and me," replied the actress, with spirit, speaking to Curtis. "He was— in love with me, I suppose, but his family objected because I was on the stage and threatened to disinherit him, and all that sort of thing. So— it ended it. Not that I ever considered the matter seriously anyway," she added.

There was silence again as The Green Dragon plunged into the darkness of the country, the two brilliant lights ahead showing every dip and rise in the road. After awhile Curtis spoke again.

"He's now in Boston?"

"Yes," said the girl. "At least, I've heard so," she added, quickly.

Then the conversation ran into other channels, and Curtis, busy with the great machine and the innumerable levers which made it do this or do that or do the other, dropped out of it. Reid and Miss Melrose talked on, but the whirr of the car as it gained speed made talking unsatisfactory and finally the girl gave herself up to the pure delight of high speed; a dangerous pleasure which sets the nerves atingle and makes one greedy for more.

"Do you smell gasoline?" Curtis asked suddenly, turning to the others.

"Believe I do," said Reid.

"Confound it! If I've sprung a leak in my tank it will be the deuce," Curtis growled amiably.

"Do you think you've got enough to get to the inn?" asked Miss Melrose. "It can't be more than five or six miles now."

"I'll run on until we stop," said Curtis. "We might be able to stir up some along here somewhere. I suppose they are prepared for autos."

At last lights showed ahead, many lights glimmering through the trees.

"I suppose that's the inn now," said Curtis. "Is it?" he asked of the girl.

"Really, I don't know, but I have an impression that it isn't. The one I mean seems farther out than this and it seems to me we passed one on the way. However, I don't remember very well."

"We'll stop and get some gasoline, anyhow," said Curtis.

Puffing and snorting odorously The Green Dragon came to a standstill in front of an old house which stood back twenty feet or more from the road. It was lighted up, and from inside they could hear the cheery rattle of dishes and see white-aproned waiters moving about. Above the door was a sign, "Monarch Inn."

"Is this the place?" asked Reid.

"Oh, no," replied Miss Melrose. "The inn I spoke of was back from the road three or four hundred feet through a grove."

Curtis leaped out, and evidently dropped something from his pocket as he did so, for he stopped and felt around for a moment. Then he examined his tank.

"It's a leak," he said, in irritation. "I haven't more than half a gallon left. These people must have some gasoline. Wait a few minutes."

Miss Melrose and Reid still sat in the car as he started away toward the house. Almost at the veranda he turned and called back:

"Charlie, I dropped something there when I jumped out. Get down and strike a match and see if you can find it. Don't go near that gasoline tank with the match."

He disappeared inside the house. Reid climbed out and struck several matches. Finally he found what was lost and thrust it into an outside pocket. Miss Melrose was gazing away down the road at two brilliant lights coming toward them rapidly.

"Rather chilly," Reid said, as he straightened up. "Want a cup of coffee or something?"

"Thanks, no," the girl replied.

"I think I'll run in and scare up some sort of a hot drink, if you'll excuse me?"

"Now, Charlie, don't," the girl asked, suddenly. "I don't like it."

"Oh, one won't hurt," he replied, lightly.

"I shan't speak to you when you come out," she insisted, half bantering.

"Oh, yes, you will." He laughed, and passed into the house.

Miss Melrose tossed her pretty head impatiently and turned to watch the approaching lights. They were blinding as they drew nearer, clearly revealing her figure, in its tan auto coat, to the occupant of the other car. The newcomer stopped and then she heard whoever was in it— she couldn't see— speaking to her.

"Would you mind turning your car a little so I can run in off the road?"

"I don't know how," she replied, helplessly.

There was a little pause. The occupant of the other car was leaning forward, looking at her closely.

"Is that you, Marguerite?" he asked finally.

"Yes," she replied. "Who is that? Don?"

"Yes."

A man's figure leaped out of the other machine and came toward her.

Curtis appeared beside the Green Dragon with a huge can of gasoline twenty minutes later. The two occupants of the car were clearly silhouetted against the sky, and Reid, leaning back in the tonneau, was smoking.

"Find it?" he asked.

"Yes," growled Curtis. And he began the work of repairing the leak and refilling his tank. It took only five minutes or so, and then he climbed up into the car.

"Cold, Marguerite?" he asked.

"She won't speak," said Reid, leaning forward a little. "She's angry because I went inside to get a hot Scotch."

"Wish I had one myself," said Curtis.

"Let's wait till we get to the next place," Reid interposed. "A little supper and trimmings will put all of us in a better humor."

Without answering, Curtis threw a lever, and the car pulled out. Two automobiles which had been standing when they arrived were still waiting for their owners. Annoyed at the delay, Curtis put on full speed. Finally Reid leaned forward and spoke to the girl.

"In a good humor?" he asked.

She gave no sign of having heard, and Reid placed his hand on her shoulder as he repeated the question. Still there was no answer.

"Make her talk to you, Jack," he suggested to Curtis.

"What's the matter, Marguerite?" asked Curtis, as he glanced around.

Still there was no answer, and he slowed up the car a little. Then he took her arm and shook it gently. There was no response.

"What is the matter with her?" he demanded. "Has she fainted?"

Again he shook her, this time more vigorously than before.

"Marguerite," he called.

Then his hand sought her face; it was deathly cold, clammy even about the chin. The upper part was still covered by the

mask. For the third time he shook her, then, really frightened, apparently, he caught at her gloved wrist and brought the car to a standstill. There was no trace of a pulse; the wrist was cold as death.

"She must be ill— very ill," he said in some agitation. "Is there a doctor near here?"

Reid was leaning over the senseless body now, having raised up in the tonneau, and when he spoke there seemed to be fear in his tone.

"Better run on as fast as you can to the inn ahead," he instructed Curtis. "It's nearer than the one we just left. There may be a doctor there."

Curtis grabbed frantically at the lever and the car shot ahead suddenly through the dark. In three minutes the lights of the second inn were in sight. The two men leaped from the car simultaneously and raced for the house.

"A doctor, quick," Curtis breathlessly demanded of a waiter.

"Next door."

Without waiting for further instructions, Curtis and Reid ran to the auto, lifted the girl in their arms and took her to a house which stood just a few feet away. There, after much clamoring, they aroused some one. Was the doctor in? Yes. Would he hurry? Yes.

The door opened and the men laid the girl's body on a couch in the hall. Dr. Leonard appeared. He was an old fellow, grizzled, with keen, kindly eyes and rigid mouth.

"What's the matter?" he asked.

"Think she's dead," replied Curtis.

The doctor adjusted his glasses rather hurriedly.

"Who is she?" he asked, as he bent over the still figure and fumbled about the throat and breast.

"Miss Marguerite Melrose, an actress," explained Curtis, hurriedly.

"What's the matter with her?" demanded Reid, fiercely.

The doctor still bent over the figure. In the dim lamplight

Curtis and Reid stood waiting anxiously, impatiently, with white faces. At last the doctor straightened up.

"What is it?" demanded Curtis.

"She's dead," was the reply.

"Great God!" exclaimed Reid. "How?" Curtis seemed speechless.

"This," said the doctor, and he exhibited a long knife, damp with blood. "Stabbed through the heart."

Curtis stared at him, at the knife, then at the inert figure, and lastly at the dead white of her face where it showed beneath the mask.

"Look, Jack!" exclaimed Reid, suddenly. "The knife!"

Curtis looked again, then sank down on the couch beside the body.

"Oh, my God! It's horrible!" he said.

TO Hutchinson Hatch and half a dozen other reporters, Dr. Leonard, at his home late that night, told the story of the arrival of Jack Curtis and Charles Reid with the body of the girl, and the succeeding events so far as he knew them. The police and Medical Examiner Francis had preceded the newspaper men, and the body had been removed to a nearby village.

"They came here in great excitement," Dr. Leonard explained. "They brought the body in with them, the man Curtis lifting her by the shoulders and the man Reid at the feet. They placed the body on this couch. I asked them who she was, and they told me she was Marguerite Melrose, an actress. That's all that was said of her identity.

"Then I made an examination of the body, seeking a trace of life. There was none, although the body was not then entirely cold. In examining her heart my hand struck the knife which had killed her— a heavy weapon, evidently used for rough work, with a blade of six or seven inches. I drew the knife out. Of course, knowing that it had pierced her heart, any idea of doing anything to save her was beyond question.

"One of the men, Curtis, seemed greatly excited about this knife after Reid called his attention to it. Curtis took the knife out of my hand and examined it closely, then asked if he might keep it. I told him it would have to be turned over to the medical examiner. He argued about it, and finally, to settle the argument, I took it out of his hand. Reid explained to Curtis that it was necessary for me to keep the knife, and finally Curtis seemed to agree to it.

"Then I suggested that the police be notified. I did this myself by telephone, the men remaining with me all the time. I asked if they could throw any light on the tragedy, but neither could. Curtis said he had been out searching for a man who had the keys to a shed where some gasoline was locked up, and it took fifteen or twenty minutes to find him. As soon as he got the gasoline he returned to the auto.

"Reid and Miss Melrose were at this time in the auto, he said. What had happened while he had been away Curtis didn't know. Reid said he, too, had stepped out of the automobile, and after exchanging a few words with Miss Melrose went into the inn. There he remained fifteen minutes or so, because inside he saw a woman he knew and spoke to her. He declared that any one of three waiters could verify his statement that he was in the Monarch Inn.

"After I had notified the police Curtis grew very uneasy in his actions— it didn't occur to me at the moment, but now I recall that it was so— and suggested to Reid that they go on to Boston and send out detectives— special Pinkerton men. I tried to dissuade them, but they went away. I couldn't stop them. They gave me their cards, however. They are at the Hotel Teutonic, and told me they could be seen there at any time. The medical examiner and the police came afterwards. I told them, and one of the detectives started immediately for Boston. They have probably told their story to him by this time."

"What did the young woman look like?" asked Hatch.

"Really, I couldn't say," said the doctor. "She wore an

automobile mask which covered all her face except the chin, and there was a veil tied over her cap, concealing her hair. I didn't remove these; I left the body just as it was for the medical examiner."

"How was she dressed?" Hatch went on.

"She wore a long tan automobile dust coat of what seemed to be rich material, and beneath this a handsome— not a fancy— gown. I believe it was tailor-made. She was a woman of superb figure."

That was all that could be learned from Dr. Leonard, and Hatch and the other men raced back to Boston. The next day the newspapers flamed with the mystery of the murder of Miss Melrose, a beautiful Western actress who was visiting Boston. Each newspaper watched the other greedily to see if there was a picture of Miss Melrose; neither had one.

The newspapers also carried the stories of Jack Curtis and Charles Reid in connection with the murder. The stories were in substance just what Dr. Leonard had said, but were given in more detail. It was the general presumption, almost a foregone conclusion, that some one had killed Miss Melrose while the two men were away from the auto.

Who was this some one? Man or woman? No one could answer. Reid's story of being inside the Monarch Inn, where he spoke to a lady he knew— but whose name he refused to give— was verified by Hatch's paper. Three waiters had seen him.

The medical examiner had made only a brief statement, in which he had said, in answer to a question, that the person who killed Miss Melrose might have been either at her right, in the position Curtis would have occupied while driving the car, or might have leaned forward from behind and stabbed her. Thus it was not impossible that one of the men in the car with her had killed her, yet against this possibility was the fact that each of the men was one whom one could not readily associate with such a crime.

The fact that the fatal blow was delivered from the right was

proven, said the astute medical examiner, by the fact that the knife slanted as a knife could not have been slanted conveniently by a person on her other side— her left. There were many dark, underlying intimations behind what the medical man said; but he refused to say any more. Meanwhile the body remained in the village where it had been taken. Efforts to get a photograph were unavailing; pleas of newspaper artists for permission to sketch her fell upon deaf ears.

Curtis and Reid, after their first statements, remained in seclusion at the Teutonic. They were not arrested because this did not seem necessary. Both had offered to do anything in their power to solve the riddle, had even employed Pinkerton men who were now on the case; but they would say nothing nor see anyone except the police. The police encouraged them in this attitude, and hinted darkly and mysteriously at clues which "would lead to an arrest within twenty-four hours."

Hatch read these intimations and smiled grimly. Then he went out to try what a little patience and perseverance and human intelligence would do. He learned something of Reid's little romance in Boston. Yet not all of it. It was a fact, however, that Reid had called at the home of Miss Elizabeth Dow on Beacon Hill just after noon and inquired for her.

"She is not in," the maid had replied.

"I'll leave my card for her," said Reid.

"I don't think she'll be back," the girl answered.

"Not be back?" Reid repeated "Why?"

"Haven't you seen the afternoon papers?" asked the girl.

"They will explain. Mrs. Dow, her mother, told me not to tell to anyone."

Reid left the house with a wrinkle in his brow and walked on toward the Common. There he halted a newsboy and bought an afternoon paper— many afternoon papers. The first pages were loaded with details of the murder of Miss Melrose, theories, conjectures, a thousand little things, with long dispatches of her history and her stage career from San Francisco.

Reid passed these over impatiently with a slight shiver and looked inside the paper. There he found the thing to which the maid had referred.

"By George!" he exclaimed.

It was a story of the elopement of Elizabeth Dow with Morgan Mason, Reid's rival. It seemed that Miss Dow and Mason met by appointment at the Monarch Inn and went from there in an automobile. The bride had written to her parents before she started, saying she preferred Mason despite his poverty. The family refused to talk of the matter. But there in facsimile was the marriage license.

Reid's face was a study as he walked back to the hotel. In a private room off the café he found Curtis, who had been drinking heavily, yet who, with the strange mood of some men, was not visibly intoxicated. Reid threw the paper down, open at the elopement announcement.

"See that," he said shortly.

Curtis read it— or glanced at it— but did not make a remark until he came to the name, the Monarch Inn. Then he looked up.

"That's where the other thing happened, isn't it?" he asked, rather thickly.

"Yes."

Curtis rambled off into something else; studiously he avoided any reference to the tragedy, yet that was the one thing which was in his mind. It was in a futile effort to forget it that he was drinking now. He talked on as a drunken man will for a time, then turned suddenly to Reid.

"I loved her," he declared suddenly, passionately. "My God!"

"Try not to think of it," Reid advised.

"You'll never say anything about that other thing— the knife— will you?" pleaded Curtis.

"Of course not," said Reid, impatiently. "They couldn't drag it out of me. But you're drinking too much— you want to quit it. First thing you know you'll be saying more than— get up and go out and take a walk."

Curtis stared at Reid vacantly for a moment, as if not understanding, then arose. He had regained possession of himself to a certain extent, but his face was pale.

"I think I will go out," he said.

After a time he passed through the café door into a side street and, refreshed a little by the cool air, started to walk along Tremont Street toward the shopping district. It was two o'clock in the afternoon and the streets were thronged.

Half a dozen reporters were idling in the lobby of the hotel, waiting vainly for either Reid or Curtis. The newspapers were shouting for another story from the only two men who could know a great deal of the circumstances attending the tragedy. Reid, on his return, had marched boldly through the crowd of reporters, paying no attention to their questions. They had not seen Curtis.

As Curtis, now free of the reporters, crossed a side street on Tremont on his way toward the shopping district he met Hutchinson Hatch, who was bound for the hotel to see his man there. Hatch instantly recognized him and fell in behind, curious to see where he would go. At a favorable opportunity, safe beyond reach of the other men, he intended to ask a few questions.

Curtis turned into Winter Street and strolled along through the crowd of women. Half way down Winter Street Hatch followed, and then for a moment he lost sight of him. He had gone into a store, he imagined. As he stood at a door waiting, Curtis came out, rushed through the crowd of women, slinging his arms like a madman, with frenzy in his face. He ran twenty steps, then stumbled and fell.

Hatch immediately ran to his assistance, lifted him up and gazed into the staring, terror-stricken eyes and an ashen face.

"What is it?" asked Hatch, quickly.

"I— I'm very ill. I— I think I need a doctor," gasped Curtis. "Take me somewhere, please."

He fell back limply, half fainting, into Hatch's arms. A cab

came worming through the crowd; Hatch climbed into it, assisting Curtis, and gave some directions to the cabby.

"And hurry," he added. "This gentleman is ill."

The cabby applied the whip and drove out into Tremont, then over toward Park Street. Curtis aroused a little.

"Where're we going?" he demanded.

"To a doctor," replied Hatch.

Curtis sank back with eyes closed and his face white— so white that Hatch felt of the pulse to assure himself that the heart was still beating. After a few minutes the cab stopped and, still assisting Curtis, Hatch went to the door. An aged woman answered the bell.

"Professor Van Dusen here?" asked the reporter.

"Yes."

"Please tell him that Mr. Hatch is here with a gentleman who needs immediate attention," Hatch directed, hurriedly.

He knew his way here and, still supporting Curtis, walked in. The woman disappeared. Curtis sank down on a couch in the little reception room, looked at Hatch glassily for a moment, then without a sound dropped back on the couch unconscious.

After a moment the door opened and there came in Professor Augustus S. F. X. Van Dusen, The Thinking Machine. He squinted inquiringly at Hatch, and Hatch waved his head toward Curtis.

"Dear me, dear me," exclaimed The Thinking Machine.

He leaned over the prostrate figure a moment, then disappeared into another room, returning with a hypodermic. After a few anxious minutes Curtis sat up straight. He stared at the two men with unseeing eyes, and in them was unutterable terror.

"I saw her! I saw her!" he screamed. "There was a dagger in her heart. Marguerite!"

Again he fell back unconscious. The Thinking Machine squinted at Hatch.

"The man's got delirium tremens," he snapped impatiently.

FOR fifteen minutes Hatch silently looked on as The Thinking Machine worked over the unconscious man. Once or twice Curtis moved uneasily and moaned slightly. Hatch had started to explain the situation to The Thinking Machine, but the irascible scientist glared at him and the reporter became silent. After ten or fifteen minutes The Thinking Machine turned to Hatch more genially.

"He'll be all right in a little while now," he said. "What is it?"

"Well, it's a murder," Hatch began. "Marguerite Melrose, an actress, was stabbed through the heart last night, and—"

"Murder?" interrupted The Thinking Machine. "Might it not have been suicide?"

"Might have been; yes," said the reporter, after a moment's pause. "But it appears to be murder."

"When you say it is murder," said The Thinking Machine, "you immediately give the impression that you were there and saw it. Go on."

From the beginning, then, Hatch told the story as he knew it; of the stopping of The Green Dragon at the Monarch Inn, of the events there, of the whereabouts of Curtis and Reid at the time the girl received the knife thrust and of the confirmation of Reid's story. Then he detailed those incidents of the arrival of the men with the girl at Dr. Leonard's house, of what had transpired there, of the effort Curtis had made to get possession of the knife.

With finger tips pressed together and squinting steadily upward, The Thinking Machine listened. At its end, which bore on the actions of Curtis just preceding his appearance in the room with them, The Thinking Machine arose and walked over to the couch where Curtis lay. He ran his slender fingers idly through the unconscious man's thick hair several times.

"Doesn't it strike you as perfectly possible, Mr. Hatch," he asked finally, "that Miss Melrose did kill herself?"

"It may be perfectly possible, but it doesn't appear so," said

Hatch. "There was no motive."

"And certainly you've shown no motive for anything else," said the other, crustily. "Still," he mused, "I really can't say anything until I talk to him."

He again turned to his patient, and as he looked saw the red blood surge back into the face.

"Ah, now we're all right," he announced.

Thus it happened, for after another ten minutes the patient sat up suddenly on the couch and looked at the two men before him, bewildered.

"What's the matter?" he asked. The thickness was gone from his speech; he was himself again, although a little shaky.

Briefly, Hatch explained to him what had happened, and he listened silently. Finally he turned to The Thinking Machine.

"And this gentleman?" he asked. He noted the queer appearance of the scientist, and stared into the squint eyes frankly.

"Professor Van Dusen, a distinguished scientist and physician," Hatch introduced. "I brought you here. He has been working with you for an hour."

"And now, Mr. Curtis," said The Thinking Machine, "if you will tell us all you know about the murder of Miss Melrose—"

Curtis paled suddenly.

"Why do you ask me?" he demanded.

"You said a great deal while you were unconscious," remarked The Thinking Machine, as he dreamily stared at the ceiling. "I know that worry over that and too much alcohol have put you in a condition bordering on nervous collapse. I think it would be better if you told it all."

Hatch instantly saw the trend of the scientist's remarks, and remained discreetly silent. Curtis stared at both for a moment, then paced nervously across the room. He did not know what he might have said, what chance word might have been dropped. Then, apparently, he made up his mind, for he stopped suddenly in front of The Thinking Machine.

"Do I look like a man who would commit murder?" he asked.

"No, you do not," was the prompt response.

His recital of the story was similar to that of Hatch, but the scientist listened carefully.

"Details! details!" he interrupted once.

The story was complete from the moment Curtis jumped out of the car until the return to the hotel of Curtis and Reid. There the narrator stopped.

"Mr. Curtis, why did you try to induce Dr. Leonard to give up the knife to you?" asked The Thinking Machine, finally.

"Because— well, because—" He faltered, flushed and stopped.

"Because you were afraid it would bring the crime home to you?" asked the scientist.

"I didn't know what might happen," was the response.

"Is it your knife?"

Again the tell-tale flush overspread Curtis's face.

"No," he said, flatly.

"Is it Reid's knife?"

"Oh, no," he said, quickly.

"You were in love with Miss Melrose?"

"Yes," was the steady reply.

"Had she ever refused to marry you?"

"I had never asked her."

"Why?"

"Is this a third degree?" demanded Curtis, angrily, and he arose. "Am I a prisoner?"

"Not at all," said The Thinking Machine, quietly. "You may be made a prisoner, though, on what you said while unconscious. I am merely trying to help you."

Curtis sank down in a chair with his head in his hands and remained motionless for several minutes. At last he looked up.

"I'll answer your questions," he said.

"Why did you never ask Miss Melrose to marry you?"

"Because— well, because I understood another man, Donald

MacLean, was as in love with her, and she might have loved him. I understood she would have married him had it not been that by doing so she would have caused his disinheritance. MacLean is now in Boston."

"Ah!" exclaimed The Thinking Machine.

"Your friend Reid didn't happen to be in love with her, too, did he?"

"Oh, no," was the reply. "Reid came here hoping to win the love of Miss Dow, a society girl. I came with him."

"Miss Dow?" asked Hatch, quickly. "The girl who eloped last night with Morgan Mason?"

"Yes," replied Curtis. "That elopement and this— crime have put Reid almost in as bad a condition as I am."

"What elopement?" asked The Thinking Machine.

Hatch explained how Mason had procured a marriage license, how Miss Dow and Mason had met at the Monarch Inn — where Miss Melrose must have been killed according to all stories— how Miss Dow had written to her parents from there of the elopement and then of their disappearance. The Thinking Machine listened, but without apparent interest.

"Have you such a knife as was used to kill Miss Melrose?" he asked at the end.

"No."

"Did you ever have such a knife?"

"Well, once."

"Where did you carry it when it was not in your auto kit?"

"In my lower coat pocket."

"By the way, what kind of looking woman was Miss Melrose?"

"One of the most beautiful women I ever met," said Curtis with a certain enthusiasm. "Of ordinary height, superb figure— a woman who would attract attention anywhere."

"I believe she wore a veil and an automobile mask at the time she was killed?"

"Yes. They covered all her face except her chin."

"Could she, wearing an automobile mask, see either side of herself without turning?" asked The Thinking Machine, pointedly. "Had you intended to stab her, say while the car was in motion and had the knife in your hand, even in daylight, could she have seen it without turning her head? Or, if she had had the knife, could you have seen it?"

Curtis shuddered a little.

"No, I don't believe so."

"Was she blonde or brunette?"

"Blonde, with great clouds of golden hair," said Curtis, and again there was admiration in his tone.

"Golden hair?" Hatch repeated. "I understood Medical Examiner Francis to say she had dark hair?"

"No, golden hair," was the positive reply.

"Did you see the body, Mr. Hatch?" asked the scientist.

"No. None of us saw it. Dr. Francis makes that a rule."

The Thinking Machine arose, excused himself and passed into another room. They heard the telephone bell ring and then some one closed the door connecting the two rooms. When the scientist returned he went straight to a point which Hatch had impatiently awaited.

"What happened to you this afternoon in Winter Street?"

Curtis had retained his composure well up to this point; now he became uneasy again. Quick pallor on his face was succeeded by a flush which crept up to the roots of his hair.

"I've been drinking too much," he said at last. "That and this thing have completely unnerved me. I am afraid I was not myself."

"What did you think you saw?" insisted The Thinking Machine.

"I went into a store for something. I've forgotten what now. I know there was a great crowd of women— they were all about me. There I saw—" He stopped and was silent for a moment. "There I saw," he went on with an effort, "a woman— just a glimpse of her, over the heads of the others in the store— and

—"

"And what?" insisted The Thinking Machine.

"At the moment I would have sworn it was Marguerite Melrose," was the reply.

"Of course you know you were mistaken?"

"I know it now," said Curtis. "It was a chance resemblance, but the effect on me was awful. I ran out of there shrieking— it seemed to me. Then I found myself here."

"And you don't know what you said or did from that time until the present?" asked the scientist, curiously.

"No, except in a hazy sort of way."

After awhile Martha, the scientist's aged servant, appeared in the doorway.

"Mr. Mallory and a gentleman, sir."

"Let them come in," said The Thinking Machine. "Mr. Curtis," and he turned to him gravely, "Mr. Reid is here. I sent for him as if at your request to ask him two questions. If he answers those questions, as I believe he will, I can demonstrate that you are not guilty of and have no connection with the murder of Miss Melrose. Let me ask these questions, without any hint or remark from you as to what the answer must be. Are you willing?"

"I am," replied Curtis. His face was white, but his voice was firm.

Detective Mallory, whom Curtis didn't know, and Charles Reid entered the room. Both looked about curiously. Mallory nodded brusquely at Hatch. Reid looked at Curtis and Curtis looked away.

"Mr. Reid," said The Thinking Machine without any preliminary, "Mr. Curtis tells me that the knife used to kill Miss Melrose was your property. Is that so?" he demanded quickly, as Curtis faced about wonderingly.

"No," thundered Reid fiercely.

"Is it Mr. Curtis's knife?" asked The Thinking Machine.

"Yes," flashed Reid. "It's a part of his auto."

Curtis started to speak; The Thinking Machine waved his

hand toward him. Detective Mallory caught the gesture and understood that Jack Curtis was his prisoner for murder.

CURTIS was led away and locked up. He raved and bitterly denounced Reid for the information he had given, but he did not deny it. Indeed, after the first burst of fury he said nothing.

Once he was under lock and key the police, led by Detective Mallory, searched his rooms at the Hotel Teutonic and there they found a handkerchief stained with blood. It was slight, still it was a stain. This was immediately placed in the hands of an expert, who pronounced it human blood. Then the case against Curtis seemed complete; it was his knife, he had been in love with Miss Melrose, therefore probably jealous of her, and here was the tell-tale blood-stain.

Meanwhile Reid was permitted to go his way. He seemed crushed by the rapid sequence of events, and read eagerly every line he could find in the public prints concerning both the murder and the elopement of Miss Dow. This latter affair, indeed, seemed to have greater sway over his mind than the murder, or that a lifetime friend was now held as the murderer.

Meanwhile The Thinking Machine had signified to Hatch his desire to visit the scene of the crime and see what might be done there. Late in the afternoon, therefore, they started, taking a train for a village nearest the Monarch Inn.

"It's a most extraordinary ease," The Thinking Machine said, "much more extraordinary than you can imagine."

"In what respect?" asked the reporter.

"In motive, in the actual manner of the girl meeting her death and in a dozen other details which I can't state now because I haven't all the facts."

"You don't doubt but what it was murder?"

"It doesn't necessarily follow," said The Thinking Machine, evasively. "Suppose we were seeking a motive for Miss Melrose's suicide, what would we have? We would have her love affair with this man MacLean whom she refused to marry

because she knew he would be disinherited. Suppose she had not seen him for a couple of years— suppose she had made up her mind to give him up— that he had suddenly appeared when she sat alone in the automobile in front of the Monarch Inn— suppose, then, finding all her love reawakened, she had decided to end it all?"

"But Curtis's knife and the blood on his handkerchief?"

"Suppose, having made up her mind to kill herself, she had sought a weapon?" went on The Thinking Machine, as if there had been no interruption. "What is more natural than she should have sought something— the knife, say— in the tool bag or kit, which must have been near her? Suppose she stabbed herself while the men were away from the automobile, or even after they had started on again in the darkness?"

Hatch looked a little crestfallen.

"You believe, then, that she did kill herself?" he asked.

"Certainly not," was the prompt response. "I don't believe Miss Melrose killed herself— but as yet I know nothing to the contrary. As for the blood on Curtis's handkerchief, remember he helped carry the body to Dr. Leonard; it might have come from that— it might have come from a slight spattering of blood."

"But circumstances certainly implicate Curtis."

"I wouldn't convict any man of any crime on any circumstantial evidence," was the response. "It's worthless unless a man is forced to confess."

The reporter was puzzled, bewildered, and his face showed it. There were many things he did not understand, but the principal question in his mind took form:

"Why did you turn Curtis over to the police, then?"

"Because he is the man who owned the knife," was the reply. "I knew he was lying to me from the first about the knife. Men have been executed on less evidence than that."

The train stopped and they proceeded to the office of the medical examiner, where the body of the woman lay. Professor

Van Dusen was readily permitted to see the body, even to offer his expert assistance in an autopsy which was then being performed; but the reporter was stopped at the door. After an hour The Thinking Machine came out.

"She was stabbed from the right," he said answer to Hatch's inquiring look, "either by some one sitting at her right, by some one leaning over her right shoulder, or she might have done it herself."

Then they went on to Monarch Inn, five miles way. Here, after a comprehensive squint at the landscape, The Thinking Machine entered and for an hour questioned three waiters there.

Did these waiters see Mr. Reid? Yes. They identified his published picture as a gentleman who had come in and taken a hot Scotch at the bar. Any one with him? No. Speak to anyone in the inn? Yes, a lady.

"What did she look like?" asked The Thinking Machine.

"Couldn't say, sir," the waiter replied. "She came in an automobile and wore a mask, with a veil tied about her head and a long tan automobile coat."

"With the mask on you couldn't see her face?"

"Only her chin, sir."

"No glimpse of her hair?"

"No, sir. It was covered by the veil."

Then The Thinking Machine turned loose a flood of questions. He learned that the woman had been waiting at the inn for nearly an hour when Reid entered; that she had come there alone and at her request had been shown into a private parlor— "to wait for a gentleman," she had told the waiter.

She had opened the door when she heard Reid enter and had glanced out, but he had disappeared into the bar before she saw him. When he started away she looked out again. Then she saw him and he saw her. She seemed surprised and started to close the door, when he spoke to her. No one heard what was said, but he went in and the door was closed.

No one knew just when either Reid or the woman left the inn. Some half an hour or so after Reid entered the room a waiter rapped on the door. There was no answer. He opened the door and went in, but there was no one there. It was presumed then that the gentleman she had been waiting for had appeared and they had gone out together. It was a fact that an automobile had come up meanwhile— in addition to that in which Curtis, Miss Melrose and Reid had come— and had gone away again.

When all this questioning had come to an end and these facts were in possession of The Thinking Machine, the reporter advanced a theory.

"That woman was unquestionably Miss Dow, who knew Reid and who eloped that night with Morgan Mason."

The Thinking Machine looked at him a moment without speaking, then led the way into the private room where the lady had been waiting. Hatch followed. They remained there five or ten minutes, then The Thinking Machine came out and started toward the front door, only eight or ten feet from this room. The road was twenty feet away.

"Let's go," he said, finally.

"Where?" asked Hatch.

"Don't you see?" asked The Thinking Machine, irrelevantly, "that it would have been perfectly possible for Miss Melrose herself to have left the automobile and gone inside the inn for a few minutes?"

Following previously received directions The Thinking Machine now set out to find the man who had charge of the gasoline tank. They went away together and remained half an hour.

On the scientist's return to where Hatch had been waiting impatiently they climbed into the car which had brought them to the inn.

"Two miles down this road, then the first road to your right until I tell you to stop," was the order to the chauffeur.

"Where are you going?" asked Hatch, curiously.

"Don't know yet," was the enigmatic reply.

The car ran on through the night, with great, unblinking lights staring straight out ahead on a road as smooth as asphalt. The turn was made, then more slowly the car proceeded along the cross road. At the second house, dimly discernible through the night, The Thinking Machine gave the signal to stop.

Hatch leaped out, and The Thinking Machine followed. Together they approached the house, a small cottage some distance back from the road. As they went up the path they came upon another automobile, but it had no lights and the engine was still. Even in the darkness they could see that one of the forward wheels was gone, and the front of the car was demolished.

"That fellow had a bad accident," Hatch remarked.

An old woman and a boy appeared at the door in answer to their rap.

"I am looking for a gentleman who was injured last night in an automobile accident," said The Thinking Machine. "Is he still here?"

"Yes. Come in."

They stepped inside as a man's voice called from another

room:

"Who is it?"

"Two gentlemen to see the man who was hurt," the woman called.

"Do you know his name?" asked The Thinking Machine.

"No, sir," the woman replied. Then the man who had spoken appeared.

"Would it be possible for us to see the gentleman who was hurt?" asked The Thinking Machine.

"Well, the doctor said we would have to keep folks away from him," was the reply. "Is there anything I could tell you?"

"We would like to know who he is," said The Thinking Machine. "It may be that we can take him off your hands."

"I don't know his name," the man explained; "but here are the things we took off him. He was hurt on the head, and hasn't been able to speak since he was brought here."

The Thinking Machine took a gold watch, a small notebook, two or three cards of various business concerns, two railroad tickets to New York and one thousand dollars in large bills. He merely glanced at the papers. No name appeared anywhere on them; the same with the railroad tickets. The business cards meant nothing at the moment. It was the gold watch on which the scientist concentrated his attention. He looked on both sides, then inside, carefully. Finally he handed it back.

"What time did this gentleman come here?" he asked.

"We brought him in from the road about nine o'clock," was the reply. "We heard his automobile smash into something and found him there beside it a moment later. He was unconscious. His car had struck a stone on the curve and he was thrown out head first."

"And where is his wife?"

"His wife?" The man looked from The Thinking Machine to the woman. "His wife? We didn't see anybody else."

"Nobody ran away from the machine as you went out?" insisted the scientist.

"No, sir," was the positive reply.

"And no woman has been here to inquire for him?"

"No, sir."

"Has anybody?"

"No, sir."

"What direction was the car going when it struck?"

"I couldn't tell you, sir. It had turned entirely over and was in the middle of the road when we found it."

"What's the number of the car?"

"It didn't have any."

"This gentleman has good medical attention, I suppose?"

"Yes, sir. Dr. Leonard is attending him. He says his condition isn't dangerous, and meanwhile we're letting him stay here, because we suppose he'll make it all right with us when he gets well."

"Thank you— that's all," said The Thinking Machine. "Good-night."

With Hatch he turned and left the house.

"What is all this?" asked Hatch, bewildered.

"That man is Morgan Mason," said The Thinking Machine.

"The man who eloped with Miss Dow?" asked Hatch, breathlessly.

"Now, where is Miss Dow?" asked The Thinking Machine, in turn.

"You mean—"

The Thinking Machine waved his hand off into the vague night; it was a gesture which Hatch understood perfectly.

HUTCHINSON HATCH was deeply thoughtful on the swift run back to the village. There he and The Thinking Machine took train to Boston. Hatch was turning over possibilities. Had Miss Dow eloped with some one besides Mason? There had been no other name mentioned. Was it possible that she killed Miss Melrose? Vaguely his mind clutched for a motive for this, yet

none appeared, and he dismissed the idea with a laugh at its absurdity. Then, What? Where? How? Why?

"I suppose the story of an actress having been murdered in an automobile under mysterious circumstances would have been telegraphed all over the country, Mr. Hatch?" asked The Thinking Machine.

"Yes," said Hatch. "If you mean this story, there's not a city in the country that doesn't know of it by this time."

"It's perfectly wonderful, the resources of the press," the scientist mused.

Hatch nodded his acquiescence. He had hoped for a moment that The Thinking Machine had asked the question as a preliminary to something else, but that was apparently all. After awhile the train jerked a little and The Thinking Machine spoke again.

"I think, Mr. Hatch I wouldn't yet print anything about the disappearance of Miss Dow," he said. "It might be unwise at present. No one else will find it out, so—"

"I understand," said Hatch. It was a command.

"By the way," the other went on, "do you happen to remember the name of that Winter Street store that Curtis went in?"

"Yes," and he named it.

It was nearly midnight when The Thinking Machine and Hatch reached Boston. The reporter was dismissed with a curt:

"Come up at noon to-morrow."

Hatch went his way. Next day at noon promptly he was waiting in the reception room of The Thinking Machine's home. The scientist was out— down in Winter Street, Martha explained— and Hatch waited impatiently for his return. He came in finally.

"Well?" inquired the reporter.

"Impossible to say anything until day after to-morrow," said The Thinking Machine.

"And then?" asked Hatch.

"The solution," replied the scientist positively. "Now I'm waiting for some one."

"Miss Dow?"

"Meanwhile you might see Reid and find out in some way if he ever happened to make a gift of any little thing, a thing that a woman would wear on the outside of her coat, for instance, to Miss Dow."

"Lord, I don't think he'll say anything."

"Find out, too, when he intends to go back West."

It took Hatch three hours, and required a vast deal of patience and skill, to find out that on a recent birthday Miss Dow had received a present of a monogram belt buckle from Reid. That was all; and that was not what The Thinking Machine meant. Hatch had the word of Miss Dow's maid for it that while Miss Dow wore this belt at the time of her elopement, it was underneath the automobile coat.

"Have you heard anything more from Miss Dow?" asked Hatch.

"Yes," responded the maid. "Her father received a letter from her this morning. It was from Chicago, and said that she and her husband were on their way to San Francisco and that the family might not hear from them again until after the honeymoon."

"How? What?" gasped Hatch. His brain was in a muddle. "She in Chicago, with— her husband?"

"Yes, sir."

"Is there any question about the letter being in her handwriting?"

"Not at all," replied the maid, positively. "It's perfectly natural," she concluded.

"But—" Hatch began, then he stopped.

For one fleeting instant he was tempted to tell the maid that the man whom the family had supposed was Miss Dow's husband was lying unconscious at a farmhouse not a great way from the Monarch Inn, and that there was no trace of Miss Dow.

Now this letter! His head whirled when he thought of it.

"Is there any question but that Miss Dow did elope with Mr. Mason and not some other man?" he asked.

"It was Mr. Mason all right," the girl responded. "I knew there was to be an elopement and helped arrange for Miss Dow to go," she added, confidently. "It was Mr. Mason, I know."

Then Hatch rushed away and telephoned to The Thinking Machine. He simply couldn't hold this latest development until he saw him again.

"We've made a mistake," he bellowed through the 'phone.

"What's that?" demanded The Thinking Machine, aggressively.

"Miss Dow is in Chicago with her husband— family has received a letter from her— that man out there with the smashed head can't be Mason." The reporter explained hurriedly.

"Dear me, dear me!" said The Thinking Machine over the wire. And again: "Dear me!"

"Her maid told me all about it," Hatch rushed on, "that is, all about her aiding Miss Dow to elope, and all that. Must be some mistake."

"Dear me!" again came in the voice of The Thinking Machine. Then: "Is Miss Dow a blonde or brunette?"

The irrelevancy of the question caused Hatch to smile in spite of himself.

"A brunette," he answered. "A pronounced brunette."

"Then," said The Thinking Machine, as if this were merely dependent upon or a part of the blonde or brunette proposition, "get immediately a picture of Mason somewhere— I suppose you can— go out and see that man with the smashed head and see if it is Mason. Let me know by 'phone."

"All right," said Hatch, rather hopelessly. "But it is impossible —"

"Don't say that," snapped The Thinking Machine. "Don't say that," he repeated, angrily. "It annoys me exceedingly."

It was nearly ten o'clock that night when Hatch again 'phoned to The Thinking Machine. He had found a photograph, he had seen the man with the smashed head. They were the same. He so informed The Thinking Machine.

"Ah," said that individual, quietly. "Did you find out about any gift that Reid might have made to Miss Dow?" he asked.

"Yes, a monogram belt buckle of gold," was the reply.

Hatch was over his head and knew it. He was finding out things and answering questions which, by the wildest stretch of his imagination, he could not bring to bear on the matter in hand— the mystery surrounding the murder of Marguerite Melrose, an actress.

"Meet me at my place here at one o'clock day after tomorrow," instructed The Thinking Machine. "Publish as little as you can of this matter until you see me. It's extraordinary— perfectly extraordinary. Good-by."

That was all. Hatch groped hopelessly through the tangle, seeking one fact that he could grasp. Then it occurred to him that he had never ascertained when Reid intended to return West, and he went to the Hotel Teutonic for this purpose. The clerk informed him that Reid was to start in a couple of days. Reid had hardly left his room since Curtis was locked up.

Precisely at one o'clock on the second day following, as directed by The Thinking Machine, Hatch appeared and was ushered in. The Thinking Machine was bowed over a retort in his laboratory, and he looked up at the reporter with a question in his eyes.

"Oh, yes," he said, as if recollecting for the first time the purpose of the visit. "Oh, yes."

He led the way to the reception room and gave instructions to Martha to admit whoever inquired for him; then he sat down and leaned back in his chair. After awhile the bell rang and two men were shown in. One was Charles Reid; the other a detective whom Hatch knew.

"Ah! Mr. Reid," said The Thinking Machine. "I'm sorry to

have troubled you, but there were some questions I wanted to ask before you went away. If you'll wait just a moment."

Reid bowed and took a seat.

"Is he under arrest?" Hatch inquired of the detective, aside.

"Oh, no," was the reply. "Oh, no. Detective Mallory told me to ask him to come up. I don't know what for."

After awhile the bell rang again. Then Hatch heard Detective Mallory's voice in the hall and the rustle of skirts; then the voice of another man. Mallory appeared at the door after a moment; behind him came two veiled women and a man who was a stranger to Hatch.

"I'm going to make a request, Mr. Mallory," said The Thinking Machine. "I know it will be a cause of pleasure to Mr. Reid. It is that you release Mr. Curtis, who is charged with the murder of Miss Melrose."

"Why?" demanded Mallory, quickly. Hatch and Reid stared at the scientist curiously.

"This," said The Thinking Machine.

The two women simultaneously removed their veils.

One was Miss Marguerite Melrose.

"MISS MELROSE that was," explained The Thinking Machine, "now Mrs. Donald MacLean. This, gentlemen, is her husband. This other young woman is Miss Dow's maid. Together I believe we will be able to throw some light on the death of the young woman who was found in Mr. Curtis's automobile."

Stupefied with amazement, Hatch stared at the woman whose reported murder had startled and puzzled the entire country. Reid had shown only slight emotion— an emotion of a kind hard to read. Finally he advanced to Miss Melrose, or Mrs. MacLean, with outstretched hand.

"Marguerite," he said.

The girl looked deeply into his eyes, then took the proffered hand.

"And Jack Curtis?" she asked.

"If Detective Mallory will have him brought here we can immediately end his connection with this case so far as your murder is concerned," said The Thinking Machine.

"Who— who was murdered then?" asked Hatch.

"A little circumstantial development is necessary to show," replied The Thinking Machine.

Detective Mallory retired into another room and 'phoned to have Curtis brought up. On his assurance that there had been a mistake which he would explain later, Curtis set out from his cell with a detective and within a few minutes appeared in the room, wonderingly.

One look at Marguerite and he was beside her, gripping her hand. For a time he didn't speak; it was not necessary. Then the actress, with flushed face, indicated MacLean, who had stood quietly by, an interested but silent spectator.

"My husband, Jack," she said.

Quick comprehension swept over Curtis and he looked from one to another. Then he approached MacLean with outstretched hand.

"I congratulate you," he said, with deep feeling. "Make her happy."

Reid had stood unobserved meanwhile. Hatch's glance traveled from one to another of the persons in the room. He was seeking to explain that expression on Reid's face, vainly thus far. There was a little pause as Reid and Curtis came face to face, but neither spoke.

"Now, please, what does it all mean?" asked MacLean, who up to this time had been silent.

"It's a strange study of the human brain," said The Thinking Machine, "and incidentally a little proof that circumstantial evidence is absolutely worthless. For instance, here it was proven that Miss Melrose was dead, that Mr. Curtis was jealous of her, that while drinking he had threatened her— this I learned at the Hotel Yarmouth, but now it is unimportant— that his knife killed her, and finally that there was blood on one of his

handkerchiefs. This is the complete circumstantial chain; and Miss Melrose appears, alive.

"Suppose we take the case from the point where I entered it. It will be interesting as showing the methods of a brain which reduces all things to tangible strands which may be woven into a whole, then fitting them together. My knowledge of the affair began when Mr. Curtis was brought to these apartments by Mr. Hatch. Mr. Curtis was ill. I gave him a stimulant; he aroused suddenly and shrieked: 'I saw her. There was a dagger in her heart. Marguerite!'

"My first impression was that he was insane; my next that he had delirium tremens, because I saw he had been drinking heavily. Later I saw it was temporary mental collapse due to excessive drinking and a tremendous strain. Instantly I associated Marguerite with this— 'a dagger in her heart.' Therefore, Marguerite dead or wounded. 'I saw her.' Dead or alive? These, then, were my first impressions.

"I asked Mr. Hatch what had happened. He told me Miss Melrose, an actress, had been murdered the night before. I suggested suicide, because suicide is always the first possibility in considering a case of violent death which is not obviously accidental. He insisted that he believed it was murder, and told me why. It was all he knew of the story.

"There was the stopping of The Green Dragon at the Monarch Inn for gasoline; the disappearance of Mr. Curtis, as he told the police, to hunt for gasoline— partly proven by the fact that he brought it back; the statement of Mr. Reid to the police that he had gone into the inn for a hot Scotch, and confirmation of this. Above all, here was the opportunity for the crime— if it were committed by any person other than Curtis or Reid.

"Then Mr. Hatch repeated to me the statement made to him by Dr. Leonard. The first thing that impressed me here was the fact that Curtis had, in taking the girl into the house, carried her by the shoulders. Instantly I saw, knowing that the girl had been stabbed through the heart, how it would be possible for blood to

get on Mr. Curtis's hands, thence on his handkerchief or clothing. This was before I knew or considered his connection with the death at all.

"Curtis told Dr. Leonard that the girl was Miss Melrose. The body wasn't yet cold, therefore death must have come just before it reached the doctor. Then the knife was discovered. Here was the first tangible working clew— a rough knife, with a blade six or seven inches long. Obviously not the sort of knife a woman would carry about with her. Therefore, where did it come from?

"Curtis tried to induce the doctor to let him have the knife; probably Curtis's knife, possibly Reid's. Why Curtis's? The nature of the knife, a blade six or seven inches long, indicated a knife used for heavy work, not for a penknife. Under ordinary circumstances such a knife would not have been carried by Reid; therefore it may have belonged to Curtis's auto kit. He might have carried it in his pocket.

"Thus, considering that it was Miss Melrose who was dead, we had these facts: Dead only a few minutes, possibly stabbed while the two men were away from the car; Curtis's knife used— not a knife from any other auto kit, mind you, because Curtis recognized this knife. Two and two make four, not sometimes, but all the time."

Every person in the room was leaning forward, eagerly listening; Reid's face was perfectly white. The Thinking Machine finally arose, walked over and ran his fingers through Reid's hair, then sat again squinting at the ceiling. He spoke as if to himself.

"Then Mr. Hatch told me another important thing," he went on. "At the moment it appeared a coincidence, later it assumed its complete importance. This was that Dr. Leonard did not actually see the face of the girl— only the chin; that the hair was covered by a veil and the mask covered the remainder of the face. Here for the first time I saw that it was wholly possible that the woman was not Miss Melrose at all. I saw it as a possibility; not that I believed it. I had no reason to, then.

"The dress of the young woman meant nothing; it was that of thousands of other young women who go automobiling—handsome tailor-made gown, tan dust coat. Then I tricked Mr. Curtis— I suppose it is only fair to use the proper word— into telling me his story by making him believe he made compromising admissions while unconscious. I had, I may say, too, examined his head minutely. I have always maintained that the head of a murderer will show a certain indentation. Mr. Curtis's head did not show this indentation, neither does Mr. Reid's.

"Mr. Curtis told me the first thing to show that the knife which killed the girl— I still believed her Miss Melrose then— could have passed out of his hands. He said when he leaped from the automobile he thought he dropped something, searched for it a moment, failed to find it, then, being in a hurry, went on. He called back to Mr. Reid to search for what he had lost. That is when Mr. Curtis lost the knife; that is when it passed into the possession of Mr. Reid. He found it."

Every eye was turned on Reid. He sat as if fascinated, staring into the upward turned face of the scientist.

"There we had a girl— presumably Miss Melrose— dead, by a knife owned by Mr. Curtis, last in the possession of Mr. Reid. Mr. Hatch had previously told me that the medical examiner said the wound which killed the girl came from her right, in a general direction. Therefore here was a possibility that Mr. Reid did it in the automobile— a possibility, I say.

"I asked Mr. Curtis why he tried to recover the knife from Dr. Leonard. He stammered and faltered, but really it was because, having recognized the knife, he was afraid the crime would come home to him. Mr. Curtis denied flatly that the knife was his, and in denying told me that it was. It was not Mr. Reid's I was assured. Mr. Curtis also told me of his love for Miss Melrose, but there was nothing there, as it appeared, strong enough to suggest a motive for murder. He mentioned you, Mr. MacLean, then.

"Then Mr. Curtis named Miss Dow as one whose hand had been sought by Mr. Reid. Mr. Hatch told me this girl— Miss Dow — had eloped the night before with Morgan Mason from Monarch Inn— or, to be exact, that her family had received a letter from her stating that she was eloping; that Mason had taken out a marriage license. Remember this was the girl that Reid was in love with; it was singular that there should have been a Monarch Inn end to that elopement as well as to this tragedy.

"This meant nothing as bearing on the abstract problem before me until Mr. Curtis described Miss Melrose as having golden hair. With another minor scrap of information Mr. Hatch again opened up vast possibilities by stating that the medical examiner, a careful man, had said Miss Melrose had dark hair. I asked him if he had seen the body; he had not. But the medical examiner told him that. Instantly in my mind the question was aroused: Was it Miss Melrose who was killed? This was merely a possibility; it still had no great weight with me.

"I asked Mr. Curtis as to the circumstances which caused his collapse in Winter Street. He explained it was because he had seen a woman whom he would have sworn was Miss Melrose if he had not known that she was dead. This, following the dark hair and blonde hair puzzle, instantly caused this point to stand forth sharply in my mind. Was Miss Melrose dead at all? I had good reason then to believe that she was not.

"Previously, with the idea of fixing for all time the ownership of the knife— yet knowing in my own mind it was Mr. Curtis's— I had sent for Mr. Reid. I told him Mr. Curtis had said it was his knife. Mr. Reid fell into the trap and did the very thing I expected. He declared angrily the knife was Mr. Curtis's, thinking Curtis had tried to saddle the crime on him. Then I turned Mr. Curtis over to the police. When he was locked up I was reasonably certain that he did not commit any crime, because I had traced the knife from him to Mr. Reid."

There was a glitter in Reid's eyes now. It was not fear, only a

nervous battle to restrain himself. The Thinking Machine went on:

"I saw the body of the dead woman— indeed, assisted at her autopsy. She was a pronounced brunette— Miss Melrose was a blonde. The mistake in identity was not an impossible one in view of the fact that each wore a mask and had her hair tied up under a veil. That woman was stabbed from the right— still a possibility of suicide."

"Who was the woman?" demanded Curtis. He seemed utterly unable to control himself longer.

"Miss Elizabeth Dow, who was supposed to have eloped with Morgan Mason," was the quiet reply.

Instant amazement was reflected on every face save Reid's, and again every eye was turned to him. Miss Dow's maid burst into tears.

"Mr. Reid knew who the woman was all the time," said The Thinking Machine. "Knowing then that Miss Dow was the dead woman— this belief being confirmed by a monogram gold belt buckle, 'E. D.,' on the body— I proceeded to find out all I could in this direction. The waiters had seen Mr. Reid in the inn; had seen him talking to a masked and veiled lady who had been waiting for nearly an hour; had seen him go into a room with her, but had not seen them leave the inn. Mr. Reid had recognized the lady— not she him. How? By a glimpse of the monogram belt buckle which he knew because he probably gave it to her."

"He did," interposed Hatch.

"I did," said Reid, calmly. It was the first time he had spoken.

"Now, Mr. Reid went into the room and closed the door, carrying with him Mr. Curtis's knife," went on The Thinking Machine. "I can't tell you from personal observation what happened in that room, but I know. Mr. Reid learned in some way that Miss Dow was going to elope; he learned that she had been waiting long past the time when Mason was due there; that she believed he had humiliated her by giving up the idea at the last minute. Being in a highly nervous condition, she lost

faith in Mason and in herself, and perhaps mentioned suicide?"

"She did," said Reid, calmly.

"Go on, Mr. Reid," suggested The Thinking Machine.

"I believed, too, that Mason had changed his mind," the young man continued, with steady voice. "I pleaded with Miss Dow to give up the idea of eloping, because, remember, I loved her, too. She finally consented to go on with our party, as her automobile had gone. We came out of the inn together. When we reached the automobile— The Green Dragon, I mean— I saw Miss Melrose getting into Mr. MacLean's automobile, which had come up meanwhile. Instantly I saw, or imagined, the circumstances, and said nothing to Miss Dow about it, particularly as Mr. MacLean's car dashed away at full speed.

"Now, in taking Miss Dow to The Green Dragon it had been my purpose to introduce her to Miss Melrose. She knew Mr. Curtis. When I saw Miss Melrose was gone I knew Curtis would wonder why. I couldn't explain, because every moment I was afraid Mason would appear to claim Miss Dow and I was anxious to get her as far away as possible. Therefore I requested her not to speak until we reached the next inn, and there I would explain to Curtis.

"Somewhere between the Monarch Inn and the inn we had started for Miss Dow changed her mind; probably was overcome by the humiliation of her position, and she used the knife. She had seen me take the knife from my pocket and throw it into the tool kit on the floor beside her. It was comparatively a trifling matter for her to stoop and pick it up, almost from under her feet, and—"

"Under all these circumstances, as stated by Mr. Reid," interrupted The Thinking Machine, "we understand why, after he found the girl dead, he didn't tell all the truth, even to Curtis. Any jury on earth would have convicted him of murder on circumstantial evidence. Then, when he saw Miss Dow dead, mistaken for Miss Melrose, he could not correct the impression without giving himself away. He was forced to silence.

"I realized these things— not in exact detail as Mr. Reid has told them, but in a general way— after my talk with the waiters. Then I set out to find out why Mason had not appeared. It was possibly due to accident. On a chance entirely I asked the man in charge of the gasoline tank at the Monarch if he had heard of an accident nearby on the night of the tragedy. He had.

"With Mr. Hatch I found the injured man. A monogram, 'M.M.,' on his watch, told me it was Morgan Mason. Mr. Mason had a serious accident and still lies unconscious. He was going to meet Miss Dow when this happened. He had two railroad tickets to New York— for himself and bride— in his pocket."

Reid still sat staring at The Thinking Machine, waiting. The others were awed into silence by the story of the tragedy.

"Having located both Mason and Miss Dow to my satisfaction, I then sought to find what had become of Miss Melrose. Mr. Reid could have told me this, but he wouldn't have, because it would have turned the light on the very thing which he was trying to keep hidden. With Miss Melrose alive, it was perfectly possible that Curtis had seen her in the Winter Street store.

"I asked Mr. Hatch if he remembered what store it was. He did. I also asked Mr. Hatch if such a story as the murder of Miss Melrose would be telegraphed all over the country. He said it would. It did not stand to reason that if Miss Melrose were in any city, or even on a train, she could have failed to hear of her own murder, which would instantly have called forth a denial.

"Therefore, where was she? On the water, out of reach of newspapers? I went to the store in Winter Street and asked if any purchases had been sent from there to any steamer about to sail on the day following the tragedy. There had been several purchases made by a woman who answered Miss Melrose's description as I had it, and these had been sent to a steamer which sailed for Halifax.

"Miss Melrose and Mr. MacLean, married then, were on that steamer. I wired to Halifax to ascertain if they were coming back

immediately. They were. I waited for them. Otherwise, Mr. Hatch, I should have given you the solution of the mystery two days ago. As it was, I waited until Miss Melrose, or Mrs. MacLean, returned. I think that's all."

"The letter from Miss Dow in Chicago?" Hatch reminded him.

"Oh, yes," said The Thinking Machine. "That was sent to a friend in her confidence, and mailed on a specified date. As a matter of fact, she and Mason were going to New York and thence to Europe. Of course, as matters happened, the two letters— the other being the one mailed from the Monarch Inn — were sent and could not be recalled."

THIS STRANGE STORY was one of the most astonishing news features the American newspapers ever handled. Charles Reid was arrested, established his story beyond question, and was released. His principal witnesses were Professor Augustus S. F. X. Van Dusen, Jack Curtis and Mrs. Donald MacLean.

3: The Man Who Was Lost

HERE ARE the facts in the case as they were known in the beginning to Professor Augustus S. F. X. Van Dusen, scientist and logician. After hearing a statement of the problem from the lips of its principal he declared it to be one of the most engaging that had ever come to his attention, and—

But let me begin at the beginning:

THE THINKING Machine was in the small laboratory of his modest apartments at two o'clock in the afternoon. Martha, the scientist's only servant, appeared at the door with a puzzled expression on her wrinkled face.

"A gentleman to see you, sir," she said.

"Name?" inquired The Thinking Machine, without turning.

"He— he didn't give it, sir," she stammered.

"I have told you always, Martha, to ask names of callers."

"I did ask his name, sir, and— and he said he didn't know it."

The Thinking Machine was never surprised, yet now he turned on Martha in perplexity and squinted at her fiercely through his thick glasses.

"Don't know his own name?" he repeated. "Dear me! How careless! Show the gentleman into the reception room immediately."

With no more introduction to the problem than this, therefore, The Thinking Machine passed into the other room. A stranger arose and came forward. He was tall, of apparently thirty-five years, clean shaven and had the keen, alert face of a man of affairs. He would have been handsome had it not been for dark rings under the eyes and the unusual white of his face. He was immaculately dressed from top to toe; altogether a man who would attract attention.

For a moment he regarded the scientist curiously; perhaps there was a trace of well-bred astonishment in his manner. He gazed curiously at the enormous head, with its shock of yellow hair, and noted, too, the droop in the thin shoulders. Thus for a moment they stood, face to face, the tall stranger making The Thinking Machine dwarf-like by comparison.

"Well?" asked the scientist.

The stranger turned as if to pace back and forth across the room, then instead dropped into a chair which the scientist indicated.

"I have heard a great deal about you, Professor," he began, in a well-modulated voice, "and at last it occurred to me to come to you for advice. I am in a most remarkable position— and I'm not insane. Don't think that, please. But unless I see some way out of this amazing predicament I shall be. As it is now, my nerves have gone; I am not myself."

"Your story? What is it? How can I help you?"

"I am lost, hopelessly lost," the stranger resumed. "I know neither my home, my business, nor even my name. I know

nothing whatever of myself or my life; what it was or what it might have been previous to four weeks ago. I am seeking light on my identity. Now, if there is any fee—"

"Never mind that," the scientist put in, and he squinted steadily into the eyes of the visitor. "What do you know? From the time you remember things tell me all of it."

He sank back into his chair, squinting steadily upward. The stranger arose, paced back and forth across the room several times and then dropped into his chair again.

"It's perfectly incomprehensible," he said. "It's precisely as if I, full grown, had been born into a world of which I knew nothing except its language. The ordinary things, chairs, tables and such things, are perfectly familiar, but who I am, where I came from, why I came— of these I have no idea. I will tell you just as my impressions came to me when I awoke one morning, four weeks ago.

"It was eight or nine o'clock, I suppose. I was in a room. I knew instantly it was a hotel, but had not the faintest idea of how I got there, or of ever having seen the room before. I didn't even know my own clothing when I started to dress. I glanced out of my window; the scene was wholly strange to me.

"For half an hour or so I remained in my room, dressing and wondering what it meant. Then, suddenly, in the midst of my other worries, it came home to me that I didn't know my own name, the place where I lived nor anything about myself. I didn't know what hotel I was in. In terror I looked into a mirror. The face reflected at me was not one I knew. It didn't seem to be the face of a stranger; it was merely not a face that I knew.

"The thing was unbelievable. Then I began a search of my clothing for some trace of my identity. I found nothing whatever that would enlighten me— not a scrap of paper of any kind, no personal or business card."

"Have a watch?" asked The Thinking Machine.

"No."

"Any money?"

"Yes, money," said the stranger. "There was a bundle of more than ten thousand dollars in my pocket, in one-hundred-dollar bills. Whose it is or where it came from I don't know. I have been living on it since, and shall continue to do so, but I don't know if it is mine. I knew it was money when I saw it, but did not recollect ever having seen any previously."

"Any jewelry?"

"These cuff buttons," and the stranger exhibited a pair which he drew from his pocket.

"Go on."

"I finally finished dressing and went down to the office. It was my purpose to find out the name of the hotel and who I was. I knew I could learn some of this from the hotel register without attracting any attention or making anyone think I was insane. I had noted the number of my room. It was twenty-seven.

"I looked over the hotel register casually. I saw I was at the Hotel Yarmouth in Boston. I looked carefully down the pages until I came to the number of my room. Opposite this number was a name— John Doane, but where the name of the city should have been there was only a dash."

"You realize that it is perfectly possible that John Doane is your name?" asked The Thinking Machine.

"Certainly," was the reply. "But I have no recollection of ever having heard it before. This register showed that I had arrived at the hotel the night before— or rather that John Doane had arrived and been assigned to Room 27, and I was the John Doane, presumably. From that moment to this the hotel people have known me as John Doane, as have other people whom I have met during the four weeks since I awoke."

"Did the handwriting recall nothing?"

"Nothing whatever."

"Is it anything like the handwriting you write now?"

"Identical, so far as I can see."

"Did you have any baggage or checks for baggage?"

"No. All I had was the money and this clothing I stand in. Of course, since then I have bought necessities."

Both were silent for a long time and finally the stranger—Doane—arose and began pacing nervously again.

"That a tailor-made suit?" asked the scientist.

"Yes," said Doane, quickly. "I know what you mean. Tailor-made garments have linen strips sewed inside the pockets on which are the names of the manufacturers and the name of the man for whom the clothes were made, together with the date. I looked for those. They had been removed, cut out."

"Ah!" exclaimed The Thinking Machine suddenly. "No laundry marks on your linen either, I suppose?"

"No. It was all perfectly new."

"Name of the maker on it?"

"No. That had been cut out, too."

Doane was pacing back and forth across the reception room; the scientist lay back in his chair.

"Do you know the circumstances of your arrival at the hotel?" he asked at last.

"Yes. I asked, guardedly enough, you may be sure, hinting to the clerk that I had been drunk so as not to make him think I was insane. He said I came in about eleven o'clock at night, without any baggage, paid for my room with a one-hundred-dollar bill, which he changed, registered and went upstairs. I said nothing that he recalls beyond making a request for a room."

"The name Doane is not familiar to you?"

"No."

"You can't recall a wife or children?"

"No."

"Do you speak any foreign language?"

"No."

"Is your mind clear now? Do you remember things?"

"I remember perfectly every incident since I awoke in the hotel," said Doane. "I seem to remember with remarkable clearness, and somehow I attach the gravest importance to the

most trivial incidents."

The Thinking Machine arose and motioned to Doane to sit down. He dropped back into a seat wearily. Then the scientist's long, slender fingers ran lightly, deftly through the abundant black hair of his visitor. Finally they passed down from the hair and along the firm jaws; thence they went to the arms, where they pressed upon good, substantial muscles. At last the hands, well shaped and white, were examined minutely. A magnifying glass was used to facilitate this examination. Finally The Thinking Machine stared into the quick-moving, nervous eyes of the stranger.

"Any marks at all on your body?" he asked at last.

"No," Doane responded. "I had thought of that and sought for an hour for some sort of mark. There's nothing— nothing." The eyes glittered a little and finally, in a burst of nervousness, he struggled to his feet. "My God!" he exclaimed. "Is there nothing you can do? What is it all, anyway?"

"Seems to be a remarkable form of aphasia," replied The Thinking Machine. "That's not an uncommon disease among people whose minds and nerves are overwrought. You've simply lost yourself— lost your identity. If it is aphasia, you will recover in time. When, I don't know."

"And meantime?"

"Let me see the money you found."

With trembling hands Doane produced a large roll of bills, principally hundreds, many of them perfectly new. The Thinking Machine examined them minutely, and finally made some memoranda on a slip of paper. The money was then returned to Doane.

"Now, what shall I do?" asked the latter.

"Don't worry," advised the scientist. "I'll do what I can."

"And— tell me who and what I am?"

"Oh, I can find that out all right," remarked The Thinking Machine. "But there's a possibility that you wouldn't recall even if I told you all about yourself."

WHEN John Doane of Nowhere— to all practical purposes— left the home of The Thinking Machine he bore instructions of divers kinds. First he was to get a large map of the United States and study it closely, reading over and pronouncing aloud the name of every city, town and village he found. After an hour of this he was to take a city directory and read over the names, pronouncing them aloud as he did so. Then he was to make out a list of the various professions and higher commercial pursuits, and pronounce these. All these things were calculated, obviously, to arouse the sleeping brain. After Doane had gone The Thinking Machine called up Hutchinson Hatch, reporter, on the 'phone.

"Come up immediately," he requested. "There's something that will interest you."

"A mystery?" Hatch inquired, eagerly.

"One of the most engaging problems that has ever come to my attention," replied the scientist.

It was only a question of a few minutes before Hatch was ushered in. He was a living interrogation point, and repressed a rush of questions with a distinct effort. The Thinking Machine finally told what he knew.

"Now it seems to be," said The Thinking Machine, and he emphasized the "seems," "it seems to be a case of aphasia. You know, of course, what that is. The man simply doesn't know himself. I examined him closely. I went over his head for a sign of a possible depression, or abnormality. It didn't appear. I examined his muscles. He has biceps of great power, is evidently now or has been athletic. His hands are white, well cared for and have no marks on them. They are not the hands of a man who has ever done physical work. The money in his pocket tends to confirm the fact that he is not of that sphere.

"Then what is he? Lawyer? Banker? Financier? What? He might be either, yet he impressed me as being rather of the business than the professional school. He has a good, square-cut

jaw— the jaw of a fighting man— and his poise gives one the impression that whatever he has been doing he has been foremost in it. Being foremost in it, he would naturally drift to a city, a big city. He is typically a city man.

"Now, please, to aid me, communicate with your correspondents in the large cities and find if such a name as John Doane appears in any directory. Is he at home now? Has he a family? All about him."

"Do you believe John Doane is his name?" asked the reporter.

"No reason why it shouldn't be," said The Thinking Machine. "Yet it might not be."

"How about inquiries in this city?"

"He can't well be a local man," was the reply. "He has been wandering about the streets for four weeks, and if he had lived here he would have met some one who knew him."

"But the money?"

"I'll probably be able to locate him through that," said The Thinking Machine. "The matter is not at all clear to me now, but it occurs to me that he is a man of consequence, and that it was possibly necessary for some one to get rid of him for a time."

"Well, if it's plain aphasia, as you say," the reporter put in, "it seems rather difficult to imagine that the attack came at a moment when it was necessary to get rid of him."

"I say it seems like aphasia," said the scientist, crustily, "There are known drugs which will produce the identical effect if properly administered."

"Oh," said Hatch. He was beginning to see.

"There is one drug particularly, made in India, and not unlike hasheesh. In a case of this kind anything is possible. To-morrow I shall ask you to take Mr. Doane down through the financial district, as an experiment. When you go there I want you particularly to get him to the sound of the 'ticker.' It will be an interesting experiment."

The reporter went away and The Thinking Machine sent a

telegram to the Blank National Bank of Butte, Montana:

"To whom did you issue hundred-dollar bills, series B, numbering 846380 to 846395 inclusive? Please answer."

It was ten o'clock next day when Hatch called on The Thinking Machine. There he was introduced to John Doane, the man who was lost. The Thinking Machine was asking questions of Mr. Doane when Hatch was ushered in.

"Did the map recall nothing?"

"Nothing."

"Montana, Montana, Montana," the scientist repeated monotonously; "think of it. Butte, Montana."

Doane shook his head hopelessly, sadly.

"Cowboy, cowboy. Did you ever see a cowboy?"

Again the head shake.

"Coyote— something like a wolf— coyote. Don't you recall ever having seen one?"

"I'm afraid it's hopeless," remarked the other.

There was a note of more than ordinary irritation in The Thinking Machine's voice when he turned to Hatch.

"Mr. Hatch, will you walk through the financial district with Mr. Doane?" he asked. "Please go to the places I suggested."

So it came to pass that the reporter and Doane went out together, walking through the crowded, hurrying, bustling financial district. The first place visited was a private room where market quotations were displayed on a blackboard. Mr. Doane was interested, but the scene seemed to suggest nothing. He looked upon it all as any stranger might have done. After a time they passed out. Suddenly a man came running toward them— evidently a broker.

"What's the matter?" asked another.

"Montana's copper's gone to smash," was the reply.

"Copper! Copper!" gasped Doane suddenly.

Hatch looked around quickly at his companion. Doane's face was a study. On it was half realization and a deep perplexed wrinkle, a glimmer even of excitement.

"Copper!" he repeated.

"Does the word mean anything to you?" asked Hatch quickly.

"Copper— metal, you know."

"Copper, copper, copper," the other repeated. Then, as Hatch looked, the queer expression faded; there came again utter hopelessness.

There are many men with powerful names who operate in the Street— some of them in copper. Hatch led Doane straight to the office of one of these men and there introduced him to a partner in the business.

"We want to talk about copper a little," Hatch explained, still eyeing his companion.

"Do you want to buy or sell?" asked the broker.

"Sell," said Doane suddenly. "Sell, sell, sell copper. That's it— copper."

He turned to Hatch, stared at him dully a moment, a deathly pallor came over his face, then, with upraised hands, fell senseless.

STILL unconscious, the man of mystery was removed to the home of The Thinking Machine and there stretched out on a sofa. The Thinking Machine was bending over him, this time in his capacity of physician, making an examination. Hatch stood by, looking on curiously.

"I never saw anything like it," Hatch remarked. "He just threw up his hands and collapsed. He hasn't been conscious since."

"It may be that when he comes to he will have recovered him memory, and in that event he will have absolutely no recollection whatever of you and me," explained The Thinking Machine.

Doane moved a little at last, and under a stimulant the color began to creep back into his pallid face.

"Just what was said, Mr. Hatch, before he collapsed?" asked the scientist.

Hatch explained, repeating the conversation as he remembered it.

"And he said 'sell,' " mused The Thinking Machine. "In other words, he thinks— or imagines he knows— that copper is to drop. I believe the first remark he heard was that copper had gone to smash— down, I presume that means?"

"Yes," the reporter replied.

Half an hour later John Doane sat up on the couch and looked around the room.

"Ah, Professor," he remarked. "I fainted, didn't I?"

The Thinking Machine was disappointed because his patient had not recovered memory with consciousness. The remark showed that he was still in the same mental condition— the man who was lost.

"Sell copper, sell, sell, sell," repeated The Thinking Machine, commandingly.

"Yes, yes, sell," was the reply.

The reflection of some great mental struggle was on Doane's face; he was seeking to recall something which persistently eluded him.

"Copper, copper," the scientist repeated, and he exhibited a penny.

"Yes, copper," said Doane. "I know. A penny."

"Why did you say sell copper?"

"I don't know," was the weary reply. "It seemed to be an unconscious act entirely. I don't know."

He clasped and unclasped his hands nervously and sat for a long time dully staring at the floor. The fight for memory was a dramatic one.

"It seemed to me," Doane explained after awhile, "that the word copper touched some responsive chord in my memory, then it was lost again. Some time in the past, I think, I must have had something to do with copper."

"Yes," said The Thinking Machine, and he rubbed his slender fingers briskly. "Now you are coming around again."

His remarks were interrupted by the appearance of Martha at the door with a telegram. The Thinking Machine opened it hastily. What he saw perplexed him again.

"Dear me! Most extraordinary!" he exclaimed.

"What is it?" asked Hatch, curiously.

The scientist turned to Doane again.

"Do you happen to remember Preston Bell?" he demanded, emphasizing the name explosively.

"Preston Bell?" the other repeated, and again the mental struggle was apparent on his face. "Preston Bell!"

"Cashier of the Blank National Bank of Butte, Montana?" urged the other, still in an emphatic tone. "Cashier Bell?"

He leaned forward eagerly and watched the face of his patient; Hatch unconsciously did the same. Once there was almost realization, and seeing it The Thinking Machine sought to bring back full memory.

"Bell, cashier, copper," he repeated, time after time.

The flash of realization which had been on Doane's face passed, and there came infinite weariness—the weariness of one who is ill.

"I don't remember," he said at last. "I'm very tired."

"Stretch out there on the couch and go to sleep," advised The Thinking Machine, and he arose to arrange a pillow. "Sleep will do you more good than anything else right now. But before you lie down, let me have, please, a few of those hundred-dollar bills you found."

Doane extended the roll of money, and then slept like a child. It was uncanny to Hatch, who had been a deeply interested spectator.

The Thinking Machine ran over the bills and finally selected fifteen of them—bills that were new and crisp. They were of an issue by the Blank National Bank of Butte, Montana. The Thinking Machine stared at the money closely, then handed it to Hatch.

"Does that look like counterfeit to you?" he asked.

"Counterfeit?" gasped Hatch. "Counterfeit?" he repeated. He took the bills and examined them. "So far as I can see they seem to be good," he went on, "though I have never had enough experience with one-hundred-dollar bills to qualify as an expert."

"Do you know an expert?"

"Yes."

"See him immediately. Take fifteen bills and ask him to pass on them, each and every one. Tell him you have reason— excellent reason— to believe that they are counterfeit. When he gives his opinion come back to me."

Hatch went away with the money in his pocket. Then The Thinking Machine wrote another telegram, addressed to Preston Bell, cashier of the Butte Bank. It was as follows:

"Please send me full details of the manner in which money previously described was lost, with names of all persons who might have had any knowledge of the matter. Highly important to your bank and to justice. Will communicate in detail on receipt of your answer."

Then, while his visitor slept, The Thinking Machine quietly removed his shoes and examined them. He found, almost worn away, the name of the maker. This was subjected to close scrutiny under the magnifying glass, after which The Thinking Machine arose with a perceptible expression of relief on his face.

"Why didn't I think of that before?" he demanded of himself.

Then other telegrams went into the West. One was to a customs shoemaker in Denver, Colorado:

"To what financier or banker have you sold within three months a pair of shoes, Senate brand, calfskin blucher, number eight, D last? Do you know John Doane?"

A second telegram went to the Chief of Police of Denver. It was:

"Please wire if any financier, banker or business man has been out of your city for five weeks or more, presumably on

business trip. Do you know John Doane?"

Then The Thinking Machine sat down to wait. At last the door bell rang and Hatch entered.

"Well?" demanded the scientist, impatiently.

"The expert declares those are not counterfeit," said Hatch.

Now The Thinking Machine was surprised. It was shown clearly by the quick lifting of the eyebrows, by a sudden snap of his jaws, by a quick forward movement of the yellow head.

"Well, well, well!" he exclaimed at last. Then again: "Well, well!"

"What is it?"

"See here," and The Thinking Machine took the hundred-dollar bills in his own hands. "These bills, perfectly new and crisp, were issued by the Blank National Bank of Butte, and the fact that they are in proper sequence would indicate that they were issued to one individual at the same time, probably recently. There can be no doubt of that. The numbers run from 846380 to 846395, all series B."

"I see," said Hatch.

"Now read that," and the scientist extended to the reporter the telegram Martha had brought in just before Hatch had gone away. Hatch read this:

"Series B, hundred-dollar bills 846380 to 846395 issued by this bank are not in existence. Were destroyed by fire, together with twenty-seven others of the same series. Government has been asked to grant permission to reissue these numbers.

Preston Bell, Cashier."

The reporter looked up with a question in his eyes.

"It means," said The Thinking Machine, "that this man is either a thief or the victim of some sort of financial jugglery."

"In that case is he what he pretends to be— a man who doesn't know himself?" asked the reporter.

"Than remains to be seen."

EVENT followed event with startling rapidity during the next few hours. First came a message from the Chief of Police of Denver. No capitalist or financier of consequence was out of Denver at the moment, so far as his men could ascertain. Longer search might be fruitful. He did not know John Doane. One John Doane in the directory was a teamster.

Then from the Blank National Bank came another telegram signed "Preston Bell, Cashier," reciting the circumstances of the disappearance of the hundred-dollar bills. The Blank National Bank had moved into a new structure; within a week there had been a fire which destroyed it. Several packages of money, including one package of hundred-dollar bills, among them those specified by The Thinking Machine, had been burned. President Harrison of the bank immediately made affidavit to the Government that these bills were left in his office.

The Thinking Machine studied this telegram carefully and from time to time glanced at it while Hatch made his report. This was as to the work of the correspondents who had been seeking John Doane. They found many men of the name and reported at length on each. One by one The Thinking Machine heard the reports, then shook his head.

Finally he reverted again to the telegram, and after consideration sent another— this time to the Chief of Police of Butte. In it he asked these questions:

"Has there ever been any financial trouble in Blank National Bank? Was there an embezzlement or shortage at any time? What is reputation of President Harrison? What is reputation of Cashier Bell? Do you know John Doane?"

In due course of events the answer came. It was brief and to the point. It said:

"Harrison recently embezzled \$175,000 and disappeared. Bell's reputation excellent; now out of city. Don't know John Doane. If you have any trace of Harrison, wire quick."

This answer came just after Doane awoke, apparently greatly

refreshed, but himself gain— that is, himself in so far as he was still lost. For an hour The Thinking Machine pounded him with questions— questions of all sorts, serious, religious and at times seemingly silly. They apparently aroused no trace of memory, save when the name Preston Bell was mentioned; then there was the strange, puzzled expression on Doane's face.

"Harrison— do you know him?" asked the scientist.
"President of the Blank National Bank of Butte?"

There was only an uncomprehending stare for an answer. After a long time of this The Thinking Machine instructed Hatch and Doane to go for a walk. He had still a faint hope that some one might recognize Doane and speak to him. As they wandered aimlessly on two persons spoke to him. One was a man who nodded and passed on.

"Who was that?" asked Hatch quickly. "Do you remember ever having seen him before?"

"Oh, yes," was the reply. "He stops at my hotel. He knows me as Doane."

It was just a few minutes before six o'clock when, walking slowly, they passed a great office building. Coming toward them was a well-dressed, active man of thirty-five years or so. As he approached he removed a cigar from his lips.

"Hello, Harry!" he exclaimed, and reached for Doane's hand.

"Hello," said Doane, but there was no trace of recognition in his voice.

"How's Pittsburg?" asked the stranger.

"Oh, all right, I guess," said Doane, and there came new wrinkles of perplexity in his brow. "Allow me, Mr.— Mr.— really I have forgotten your name—"

"Manning," laughed the other.

"Mr. Hatch, Mr. Manning."

The reporter shook hands with Manning eagerly; he saw now a new line of possibilities suddenly revealed. Here was a man who knew Doane as Harry— and then Pittsburg, too.

"Last time I saw you was in Pittsburg, wasn't it?" Manning

rattled on, as he led the way into a nearby café. "By George, that was a stiff game that night! Remember that jack full I held? It cost me nineteen hundred dollars," he added, ruefully.

"Yes, I remember," said Doane, but Hatch knew that he did not. And meanwhile a thousand questions were surging through the reporter's brain.

"Poker hands as expensive as that are liable to be long remembered," remarked Hatch, casually. "How long ago was that?"

"Three years, wasn't it, Harry?" asked Manning.

"All of that, I should say," was the reply.

"Twenty hours at the table," said Manning, and again he laughed cheerfully. "I was woozy when we finished."

Inside the café they sought out a table in a corner. No one else was near. When the waiter had gone, Hatch leaned over and looked Doane straight in the eyes.

"Shall I asked some questions?" he inquired.

"Yes, yes," said the other eagerly.

"What— what is it?" asked Manning.

"It's a remarkably strange chain of circumstances," said Hatch, in explanation. "This man whom you call Harry, we know as John Doane. What is his real name? Harry what?"

Manning stared at the reporter for a moment in amazement, then gradually a smile came to his lips.

"What are you trying to do?" he asked. "Is this a joke?"

"No, my God, man, can't you see?" exclaimed Doane, fiercely. "I'm ill, sick, something. I've lost my memory, all of my past. I don't remember anything about myself. What is my name?"

"Well, by George!" exclaimed Manning. "By George! I don't believe I know your full name. Harry— Harry— what?"

He drew from his pocket several letters and half a dozen scraps of paper and ran over them. Then he looked carefully through a worn notebook.

"I don't know," he confessed. "I had your name and address

in an old notebook, but I suppose I burned it. I remember, though, I met you in the Lincoln Club in Pittsburg three years ago. I called you Harry because everyone was calling everyone else by his first name. Your last name made no impression on me at all. By George!" he concluded, in a new burst of amazement.

"What were the circumstances, exactly?" asked Hatch.

"I'm a traveling man," Manning explained. "I go everywhere. A friend gave me a card to the Lincoln Club in Pittsburg and I went there. There were five or six of us playing poker, among them Mr. — Mr. Doane here. I sat at the same table with him for twenty hours or so, but I can't recall his last name to save me. It isn't Doane, I'm positive. I have an excellent memory for faces, and I know you're the man. Don't you remember me?"

"I haven't the slightest recollection of ever having seen you before in my life," was Doane's slow reply. "I have no recollection of ever having been in Pittsburg— no recollection of anything."

"Do you know if Mr. Doane is a resident of Pittsburg?" Hatch inquired. "Or was he there as a visitor, as you were?"

"Couldn't tell you to save my life," replied Manning. "Lord, it's amazing, isn't it? You don't remember me? You called me Bill all evening."

The other man shook his head.

"Well, say, is there anything I can do for you?"

"Nothing, thanks," said Doane. "Only tell me my name, and who I am."

"Lord, I don't know."

"What sort of a club is the Lincoln?" asked Hatch.

"It's a sort of a millionaire's club," Manning explained. "Lots of iron men belong to it. I had considerable business with them — that's what took me to Pittsburg."

"And you are absolutely positive this is the man you met there?"

"Why, I know it. I never forget faces; it's my business to

remember them."

"Did he say anything about a family?"

"Not that I recall. A man doesn't usually speak of his family at a poker table."

"Do you remember the exact date or the month?"

"I think it was in January or February possibly," was the reply. "It was bitterly cold and the snow was all smoked up. Yes, I'm positive it was in January, three years ago."

After awhile the men separated. Manning was stopping at the Hotel Teutonic and willingly gave his name and permanent address to Hatch, explaining at the same time that he would be in the city for several days and was perfectly willing to help in any way he could. He took also the address of The Thinking Machine.

From the café Hatch and Doane returned to the scientist. They found him with two telegrams spread out on a table before him. Briefly Hatch told the story of the meeting with Manning, while Doane sank down with his head in his hands. The Thinking Machine listened without comment.

"Here," he said, at the conclusion of the recital, and he offered one of the telegrams to Hatch. "I got the name of a shoemaker from Mr. Doane's shoe and wired to him in Denver, asking if he had a record of the sale. This is the answer. Read it aloud."

Hatch did so.

"Shoes such as described made nine weeks ago for Preston Bell, cashier Blank National Bank of Butte. Don't know John Doane."

"Well— what—" Doane began, bewildered.

"It means that you are Preston Bell," said Hatch, emphatically.

"No," said The Thinking Machine, quickly. "It means that there is only a strong probability of it."

THE DOOR BELL rang. After a moment Martha appeared.

"A lady to see you, sir," she said.

"Her name?"

"Mrs. John Doane."

"Gentlemen, kindly step into the next room," requested The Thinking Machine.

Together Hatch and Doane passed through the door. There was an expression of— of— no man may say what— on Doane's face as he went.

"Show her in here, Martha," instructed the scientist.

There was a rustle of silk in the hall, the curtains on the door were pulled apart quickly and a richly gowned woman rushed into the room.

"My husband? Is he here?" she demanded, breathlessly. "I went to the hotel; they said he came here for treatment. Please, please, is he here?"

"A moment, madam," said The Thinking Machine. He stepped to the door through which Hatch and Doane had gone, and said something. One of them appeared in the door. It was Hutchinson Hatch.

"John, John, my darling husband," and the woman flung her arms about Hatch's neck. "Don't you know me?"

With blushing face Hatch looked over her shoulder into the eyes of The Thinking Machine, who stood briskly rubbing his hands. Never before in his long acquaintance with the scientist had Hatch seen him smile.

FOR A TIME there was silence, broken only by sobs, as the woman clung frantically to Hatch, with her face buried on his shoulder. Then:

"Don't you remember me?" she asked again and again. "Your wife? Don't you remember me?"

Hatch could still see the trace of a smile on the scientist's face, and said nothing.

"You are positive this gentleman is your husband?" inquired The Thinking Machine, finally.

"Oh, I know," the woman sobbed. "Oh, John, don't you remember me?" She drew away a little and looked deeply into the reporter's eyes. "Don't you remember me, John?"

"Can't say that I ever saw you before," said Hatch, truthfully enough. "I— I— fact is—"

"Mr. Doane's memory is wholly gone now," explained The Thinking Machine. "Meanwhile, perhaps you would tell me something about him. He is my patient. I am particularly interested."

The voice was soothing; it had lost for the moment its perpetual irritation. The woman sat down beside Hatch. Her face, pretty enough in a bold sort of way, was turned to The Thinking Machine inquiringly. With one hand she stroked that of the reporter.

"Where are you from?" began the scientist. "I mean where is the home of John Doane?"

"In Buffalo," she replied, glibly. "Didn't he even remember that?"

"And what's his business?"

"His health has been bad for some time and recently he gave up active business," said the woman. "Previously he was connected with a bank."

"When did you see him last?"

"Six weeks ago. He left the house one day and I have never heard from him since. I had Pinkerton men searching and at last they reported he was at the Yarmouth Hotel. I came on immediately. And now we shall go back to Buffalo." She turned to Hatch with a languishing glance. "Shall we not, dear?"

"Whatever Professor Van Dusen thinks best," was the equivocal reply.

Slowly the glimmer of amusement was passing out of the squint eyes of The Thinking Machine; as Hatch looked he saw a hardening of the lines of the mouth. There was an explosion coming. He knew it. Yet when the scientist spoke his voice was more velvety than ever.

"Mrs. Doane, do you happen to be acquainted with a drug which produces temporary loss of memory?"

She stared at him, but did not lose her self-possession.

"No," she said finally. "Why?"

"You know, of course, that this man is not your husband?"

This time the question had its effect. The woman arose suddenly stared at the two men, and her face went white.

"Not?— not?— what do you mean?"

"I mean," and the voice reassumed its tone of irritation, "I mean that I shall send for the police and give you in their charge unless you tell me the truth about this affair. Is that perfectly clear to you?"

The woman's lips were pressed tightly together. She saw that she had fallen into some sort of a trap; her gloved hands were clenched fiercely; the pallor faded and a flush of anger came.

"Further, for fear you don't quite follow me even now," explained The Thinking Machine, "I will say that I know all about this copper deal of which this so-called John Doane was the victim. I know his condition now. If you tell the truth you may escape prison— if you don't, there is a long term, not only for you, but for your fellow-conspirators. Now will you talk?"

"No," said the woman. She arose as if to go out.

"Never mind that," said The Thinking Machine. "You had better stay where you are. You will be locked up at the proper moment. Mr. Hatch, please 'phone for Detective Mallory."

Hatch arose and passed into the adjoining room.

"You tricked me," the woman screamed suddenly, fiercely.

"Yes," the other agreed, complacently. "Next time be sure you know your own husband. Meanwhile where is Harrison?"

"Not another word," was the quick reply.

"Very well," said the scientist, calmly. "Detective Mallory will be here in a few minutes. Meanwhile I'll lock this door."

"You have no right—" the woman began.

Without heeding the remark, The Thinking Machine passed

into the adjoining room. There for half an hour he talked earnestly to Hatch and Doane. At the end of that time he sent a telegram to the manager of the Lincoln club in Pittsburg, as follows:

"Does your visitors' book show any man, registered there in the month of January three years ago, whose first name is Harry or Henry? If so, please wire name and description, also name of man whose guest he was."

This telegram was dispatched. A few minutes later the door bell rang and Detective Mallory entered.

"What is it?" he inquired.

"A prisoner for you in the next room," was the reply. "A woman. I charge her with conspiracy to defraud a man who for the present we will call John Doane. That may or may not be his name."

"What do you know about it?" asked the detective.

"A great deal now— more after awhile. I shall tell you then. Meanwhile take this woman. You gentlemen, I should suggest, might go out somewhere this evening. If you drop by afterwards there may be an answer to a few telegrams which will make this matter clear."

Protestingly the mysterious woman was led away by Detective Mallory; and Doane and Hatch followed shortly after. The next act of the Thinking Machine was to write a telegram addressed to Mrs. Preston Bell, Butte, Montana. Here it is:

"Your husband suffering temporary mental trouble here. Can you come on immediately? Answer."

When the messenger boy came for the telegram he found a man on the stoop. The Thinking Machine received the telegram, and the man, who gave to Martha the name of Manning, was announced.

"Manning, too," mused the scientist. "Show him in."

"I don't know if you know why I am here," explained Manning.

"Oh, yes," said the scientist. "You have remembered Doane's

name. What is it, please?"

Manning was too frankly surprised to answer and only stared at the scientist.

"Yes, that's right," he said finally, and he smiled. "His name is Pillsbury. I recall it now."

"And what made you recall it?"

"I noticed an advertisement in a magazine with the name in large letters. It instantly came to me that that was Doane's real name."

"Thanks," remarked the scientist. "And the woman— who is she?"

"What woman?" asked Manning.

"Never mind, then. I am deeply obliged for your information. I don't suppose you know anything else about it?"

"No," said Manning. He was a little bewildered, and after awhile went away.

For an hour or more The Thinking Machine sat with finger tips pressed together staring at the ceiling. His meditations were interrupted by Martha.

"Another telegram, sir."

The Thinking Machine took it eagerly. It was from the manager of the Lincoln Club in Pittsburg:

"Henry C. Carney, Harry Meltz, Henry Blake, Henry W. Tolman, Harry Pillsbury, Henry Calvert and Henry Louis Smith all visitors to club in month you name. Which do you want to learn more about?"

It took more than an hour for The Thinking Machine to establish long distance connection by 'phone with Pittsburg. When he had finished talking he seemed satisfied.

"Now," he mused. "The answer from Mrs. Bell."

It was nearly midnight when that came. Hatch and Doane had returned from a theater and were talking to the scientist when the telegram was brought in.

"Anything important?" asked Doane, anxiously.

"Yes," said the scientist, and he slipped a finger beneath the

flap of the envelope. "It's clear now. It was an engaging problem from first to last, and now—"

He opened the telegram and glanced at it; then with bewilderment on his face and mouth slightly open he sank down at the table and leaned forward with his head on his arms. The message fluttered to the table and Hatch read this:

Man in Boston can't be my husband. He is now in Honolulu. I received cablegram from him to-day.

Mrs. Preston Bell.

IT was thirty-six hours later that the three men met again. The Thinking Machine had abruptly dismissed Hatch and Doane the last time. The reporter knew that something wholly unexpected had happened. He could only conjecture that this had to do with Preston Bell. When the three met again it was in Detective Mallory's office at police headquarters. The mysterious woman who had claimed Doane for her husband was present, as were Mallory, Hatch, Doane and The Thinking Machine.

"Has this woman given any name?" was the scientist's first question.

"Mary Jones," replied the detective, with a grin.

"And address?"

"No."

"Is her picture in the Rogues' Gallery?"

"No. I looked carefully."

"Anybody called to ask about her?"

"A man— yes. That is, he didn't ask about her— he merely asked some general questions, which now we believe were to find out about her."

The Thinking Machine arose and walked over to the woman. She looked up at him defiantly.

"There has been a mistake made, Mr. Mallory," said the scientist. "It's my fault entirely. Let this woman go. I am sorry to

have done her so grave an injustice."

Instantly the woman was on her feet, her face radiant. A look of disgust crept into Mallory's face.

"I can't let her go now without arraignment," the detective growled. "It ain't regular."

"You must let her go, Mr. Mallory," commanded The Thinking Machine, and over the woman's shoulder the detective saw an astonishing thing. The Thinking Machine winked. It was a decided, long, pronounced wink.

"Oh, all right," he said, "but it ain't regular at that."

The woman passed out of the room hurriedly, her silken skirts rustling loudly. She was free again. Immediately she disappeared. The Thinking Machine's entire manner changed.

"Put your best man to follow her," he directed rapidly. "Let him go to her home and arrest the man who is with her as her husband. Then bring them both back here, after searching their rooms for money."

"Why— what— what is all this?" demanded Mallory, amazed.

"The man who inquired for her, who is with her, is wanted for a \$175,000 embezzlement in Butte, Montana. Don't let your man lose sight of her."

The detective left the room hurriedly. Ten minutes later he returned to find The Thinking Machine leaning back in his chair with eyes upturned. Hatch and Doane were waiting, both impatiently.

"Now Mr. Mallory," said the scientist, "I shall try to make this matter as clear to you as it is to me. By the time I finish I expect your man will be back here with this women and the embezzler. His name is Harrison; I don't know hers. I can't believe she is Mrs. Harrison, yet he has, I suppose, a wife. But here's the story. It is the chaining together of fact after fact; a necessary logical sequence to a series of incidents, which are, separately, deeply puzzling."

The detective lighted a cigar and the others disposed

themselves comfortably to listen.

"This gentleman came to me," began The Thinking Machine, "with a story of loss of memory. He told me that he knew neither his name, home, occupation, nor anything whatever about himself. At the moment it struck me as a case for a mental expert; still I was interested. It seemed to be a remarkable case of aphasia, and I so regarded it until he told me that he had \$10,000 in bills, that he had no watch, that everything which might possibly be of value in establishing his identity had been removed from his clothing. This included even the names of the makers of his linen. That showed intent, deliberation.

"Then I knew it could not be aphasia. That disease strikes a man suddenly as he walks the street, as he sleeps, as he works, but never gives any desire to remove traces of one's identity. On the contrary, a man is still apparently sound mentally— he has merely forgotten something— and usually his first desire is to find out who he is. This gentleman had that desire, and in trying to find some clew he showed a mind capable of grasping at every possible opportunity. Nearly every question I asked had been anticipated. Thus I recognized that he must be a more than usually astute man.

"But if not aphasia, what was it? What caused his condition? A drug? I remembered that there was such a drug in India, not unlike hasheesh. Therefore for the moment I assumed a drug. It gave me a working basis. Then what did I have? A man of striking mentality who was the victim of some sort of plot, who had been drugged until he lost himself, and in that way disposed of. The handwriting might be the same, for handwriting is rarely affected by a mental disorder; it is a physical function.

"So far, so good. I examined his head for a possible accident. Nothing. His hands were white and in no way calloused. Seeking to reconcile the fact that he had been a man of strong mentality, with all other things a financier or banker, occurred to me. The same things might have indicated a lawyer, but the poise of this man, his elaborate care in dress, all these things made me think

him the financier rather than the lawyer.

"Then I examined some money he had when he awoke. Fifteen or sixteen of the hundred-dollar bills were new and in sequence. They were issued by a national bank. To whom? The possibilities were that the bank would have a record. I wired, asking about this, and also asked Mr. Hatch to have his correspondents make inquiries in various cities for a John Doane. It was not impossible that John Doane was his name. Now I believe it will be safe for me to say that when he registered at the hotel he was drugged, his own name slipped his mind, and he signed John Doane— the first name that came to him. That is not his name.

"While waiting an answer from the bank I tried to arouse his memory by referring to things in the West. It appeared possible that he might have brought the money from the West with him. Then, still with the idea that he was a financier, I sent him to the financial district. There was a result. The word 'copper' aroused him so that he fainted after shouting, 'Sell copper, sell, sell, sell.'

"In a way my estimate of the man was confirmed. He was or had been in a copper deal, selling copper in the market, or planning to do so. I know nothing of the intricacies of the stock market. But there came instantly to me the thought that a man who would faint away in such a case must be vitally interested as well as ill. Thus I had a financier, in a copper deal, drugged as result of a conspiracy. Do you follow me, Mr. Mallory?"

"Sure," was the reply.

"At this point I received a telegram from the Butte bank telling me that the hundred-dollar bills I asked about had been burned. This telegram was signed 'Preston Bell, Cashier.' If that were true, the bills this man had were counterfeit. There were no ifs about that. I asked him if he knew Preston Bell. It was the only name of a person to arouse him in any way. A man knows his own name better than anything in the world. Therefore was it his? For a moment I presumed it was.

"Thus the case stood: Preston Bell, cashier of the Butte bank,

had been drugged, was the victim of a conspiracy, which was probably a part of some great move in copper. But if this man were Preston Bell, how came the signature there? Part of the office regulation? It happens hundreds of times that a name is so used, particularly on telegrams.

"Well, this man who was lost— Doane, or Preston Bell— went to sleep in my apartments. At that time I believed it fully possible that he was a counterfeiter, as the bills were supposedly burned, and sent Mr. Hatch to consult an expert. I also wired for details of the fire loss in Butte and names of persons who had any knowledge of the matter. This done, I removed and examined this gentleman's shoes for the name of the maker. I found it. The shoes were of fine quality, probably made to order for him.

"Remember, at this time I believed this gentleman to be Preston Bell, for reasons I have stated. I wired to the maker or retailer to know if he had a record of a sale of the shoes, describing them in detail, to any financier or banker. I also wired to the Denver police to know if any financier or banker had been away from there for four or five weeks. Then came the somewhat startling information, through Mr. Hatch, that the hundred-dollar bills were genuine. That answer meant that Preston Bell— as I had begun to think of him— was as either a thief or the victim of some sort of financial conspiracy."

During the silence which followed every eye was turned on the man who was lost— Doane or Preston Bell. He sat staring straight ahead of him with hands nervously clenched. On his face was written the sign of a desperate mental struggle. He was still trying to recall the past.

"Then," The Thinking Machine resumed, "I heard from the Denver police. There was no leading financier or banker out of the city so far as they could learn hurriedly. It was not conclusive, but it aided me. Also I received another telegram from Butte, signed Preston Bell, telling me the circumstances of the supposed burning of the hundred-dollar bills. It did not show

that they were burned at all; it was merely an assumption that they had been. They were last seen in President Harrison's office."

"Harrison, Harrison, Harrison," repeated Doane.

"Vaguely I could see the possibility of something financially wrong in the bank. Possibly Harrison, even Mr. Bell here, knew of it. Banks do not apply for permission to reissue bills unless they are positive of the original loss. Yet here were the bills. Obviously some sort of jugglery. I wired to the police of Butte, asking some questions. The answer was that Harrison had embezzled \$175,000 and had disappeared. Now I knew he had part of the missing, supposedly burned, bills with him. It was obvious. Was Bell also a thief?

"The same telegram said that Mr. Bell's reputation was of the best, and he was out of the city. That confirmed my belief that it was an office rule to sign telegrams with the cashier's name, and further made me positive that this man was Preston Bell. The chain of circumstances was complete. It was two and two— inevitable result, four.

"Now, what was the plot? Something to do with copper, and there was an embezzlement. Then, still seeking a man who knew Bell personally, I sent him out walking with Hatch. I had done so before. Suddenly another figure came into the mystery— a confusing one at the moment. This was a Mr. Manning, who knew Doane, or Bell, as Harry— something; met him in Pittsburg three years ago, in the Lincoln Club.

"It was just after Mr. Hatch told me of this man that I received a telegram from the shoemaker in Denver. It said that he had made a shoe such as I described within a few months for Preston Bell. I had asked if a sale had been made to a financier or banker; I got the name back by wire.

"At this point a woman appeared to claim John Doane as her husband. With no definite purpose, save general precaution, I asked Mr. Hatch to see her first. She imagined he was Doane and embraced him, calling him John. Therefore she was a fraud.

She did not know John Doane, or Preston Bell, by sight. Was she acting under the direction of some one else? If so, whose?"

There was as a pause as The Thinking Machine readjusted himself in the chair. After a time he went on:

"There are shades of emotion intuition, call it what you will, so subtle that it is difficult to express them in words. As I had instinctively associated Harrison with Bell's present condition I instinctively associated this woman with Harrison. For not a word of the affair had appeared in a newspaper; only a very few persons knew of it. Was it possible that the stranger Manning was backing the woman in an effort to get the \$10,000? That remained to be seen. I questioned the woman; she would say nothing. She is clever, but she blundered badly in claiming Mr. Hatch for a husband."

The reporter blushed modestly.

"I asked her flatly about a drug. She was quite calm and her manner indicated that she knew nothing of it. Yet I presume she did. Then I sprung the bombshell, and she saw she had made a mistake. I gave her over to Detective Mallory and she was locked up. This done, I wired to the Lincoln Club in Pittsburg to find out about this mysterious 'Harry' who had come into the case. I was so confident then that I also wired to Mrs. Bell in Butte, presuming that there was a Mrs. Bell, asking about her husband.

"Then Manning came to see me. I knew he came because he had remembered the name he knew you by," and The Thinking Machine turned to the central figure in this strange entanglement of identity, "although he seemed surprised when I told him as much. He knew you as Harry Pillsbury. I asked him who the woman was. His manner told me that he knew nothing whatever of her. Then it came back to her as an associate of Harrison, your enemy for some reason, and I could see it in no other light. It was her purpose to get hold of you and possibly keep you a prisoner, at least until some gigantic deal in which copper figured was disposed of. That was what I surmised.

"Then another telegram came from the Lincoln Club in

Pittsburg. The name of Harry Pillsbury appeared as a visitor in the book in January, three years ago. It was you— Manning is not the sort of man to be mistaken— and then there remained only one point to be solved as I then saw the case. That was an answer from Mrs. Preston Bell, if there was a Mrs. Bell. She would know where her husband was."

Again there was silence. A thousand things were running through Bell's mind. The story had been told so pointedly, and was so vitally a part of him, that semi-recollection was again on his face.

"That telegram said that Preston Bell was in Honolulu; that the wife had received a cable dispatch that day. Then, frankly, I was puzzled; so puzzled, in fact, that the entire fabric I had constructed seemed to melt away before my eyes. It took me hours to readjust it. I tried it all over in detail, and then the theory which would reconcile every fact in the case was evolved. That theory is right— as right as that two and two make four. It's logic."

It was half an hour later when a detective entered and spoke to Detective Mallory aside.

"Fine!" said Mallory. "Bring 'em in."

Then there reappeared the woman who had been a prisoner and a man of fifty years.

"Harrison!" exclaimed Bell, suddenly. He staggered to his feet with outstretched hands. "Harrison! I know! I know!"

"Good, good, very good," said The Thinking Machine.

Bell's nervously twitching hands were reaching for Harrison's throat when he was pushed aside by Detective Mallory. He stood pallid for a moment, then sank down on the floor in a heap. He was senseless. The Thinking Machine made a hurried examination.

"Good!" he remarked again. "When he recovers he will remember everything except what has happened since he has been in Boston. Meanwhile, Mr. Harrison, we know all about the little affair of the drug, the battle for new copper workings in

Honolulu, and your partner there has been arrested. Your drug didn't do its work well enough. Have you anything to add?"

The prisoner was silent.

"Did you search his rooms?" asked The Thinking Machine of the detective who had made the double arrest.

"Yes, and found this."

It was a large roll of money. The Thinking Machine ran over it lightly— \$70,000— scanning the numbers of the bills. At last he held forth half a dozen. They were among the twenty-seven reported to have been burned in the bank fire in Butte.

Harrison and the woman were led away. Subsequently it developed that he had been systematically robbing the bank of which he was president for years; was responsible for the fire, at which time he had evidently expected to make a great haul; and that the woman was not his wife. Following his arrest this entire story came out; also the facts of the gigantic copper deal, in which he had rid himself of Bell, who was his partner, and had sent another man to Honolulu in Bell's name to buy up options on some valuable copper property there. This confederate in Honolulu had sent the cable dispatches to the wife in Butte. She accepted them without question.

It was a day or so later that Hatch dropped in to see The Thinking Machine and asked a few questions.

"How did Bell happen to have that \$10,000?"

"It was given to him, probably, because it was safer to have him rambling about the country, not knowing who he was as, than to kill him."

"And how did he happen to be here?"

"That question may be answered at the trial."

"And how did it come that Bell was once known as Harry Pillsbury?"

"Bell is a director in United States Steel, I have since learned. There was a secret meeting of this board in Pittsburg three years ago. He went incognito to attend that meeting and was introduced at the Lincoln Club as Harry Pillsbury."

"Oh!" exclaimed Hatch.

4: The Mystery of a Studio

WHERE THE light slants down softly into one corner of a noted art museum in Boston there hangs a large picture. Its title is "*Fulfillment*." Discriminating art critics have alternately raved at it and praised it; from the day it appeared there it has been a fruitful source of acrimonious discussion. As for the public, it accepts the picture as a startling, amazing thing of beauty, and there is always a crowd around it.

"*Fulfillment*" is typified by a woman. She stands boldly forth against a languorous background of deep tones. Flesh tints are daringly laid on the semi-nude figure, diaphanous draperies hide, yet, reveal, the exquisite lines of the body. Her arms are outstretched straight toward the spectator, the black hair ripples down over her shoulders, the red lips are slightly parted. The mysteries of complete achievement and perfect life lie in her eyes.

Into this picture the artist wove the spiritual and the worldly; here he placed on canvas an elusive portrayal of success in its fullest and widest meaning. One's first impression of the picture is that it is sensual; another glance shows the underlying typification of success, and love and life are there. One by one the qualities stand forth.

The artist was Constans St. George. After the first flurry of excitement which the picture caused there came a whirlwind of criticism. Then the artist, who had labored for months on the work which he had intended and which proved to be his masterpiece, collapsed. Some said it was overwork— they were partly right; others that it was grief at the attacks of critics who did not see beyond the surface of the painting. Perhaps they, too, were partly right.

However that may be, it is a fact that for several months

after the picture was exhibited St. George was in a sanitarium. The physicians said it was nervous collapse— a total breaking-down, and there were fears for his sanity. At length there came an improvement in his condition, and he returned to the world. Since then he had lived quietly in his studio, one of many in a large office building. From time to time he had been approached with offers for the picture, but always he refused to sell. A New York millionaire made a flat proposition of fifty thousand dollars, which was as flatly refused.

The artist loved the picture as a child of his own brain; every day he visited the museum where it was exhibited and stood looking at it with something almost like adoration in his eyes. Then he went away quietly, tugging at his straggling beard and with the dim blindness of tears in his eyes. He never spoke to anyone; and always avoided that moment when a crowd was about.

Whatever the verdict of the critics or of the public on "*Fulfillment*," it was an admitted fact that the artist had placed on canvas a representation of a wonderfully beautiful woman. Therefore, after awhile the question of who had been the model for "*Fulfillment*" was aroused. No one knew, apparently. Artists who knew St. George could give no idea— they only knew that the woman who had posed was not a professional model.

This led to speculation, in which the names of some of the most beautiful women in the United States were mentioned. Then a romance was woven. This was that the artist was in love with the original and that his collapse was partly due to her refusal to wed him. This story, as it went, was elaborated until the artist was said to be pining away for love of one whom he had immortalized in oils.

As the story grew it gained credence, and a search was still made occasionally for the model. Half a dozen times Hutchinson Hatch, a newspaper reporter of more than usual astuteness, had been on the story without success; he had seen and studied the picture until every line of it was firmly in his mind. He had seen

and talked to St. George twice. The artist would answer no questions as to the identity of the model.

This, then, was the situation on the morning of Friday, November 27, when Hatch entered the reportorial rooms of his newspaper. At sight of him the City Editor removed his cigar, placed it carefully on the "official block" which adorned his flat-topped desk, and called to the reporter.

"Girl reported missing," he said, brusquely. "Name is Grace Field, and she lived at No. 195 —th Street, Dorchester. Employed in the photographic department of the Star, a big department store. Report of her disappearance made to the police early to-day by Ellen Stanford, her roommate, also employed at the Star. Jump out on it and get all you can. Here is the official police description."

Hatch took a slip of paper and read:

"Grace Field, twenty-one years, five feet seven inches tall, weight 151 pounds, profuse black hair, dark-brown eyes, superb figure, oval face, said to be beautiful."

Then the description went into details of her dress and other things which the police note in their minute records for a search. Hatch absorbed all these things and left his office. He went first to the department store, where he was told Miss Stanford had not appeared that day, sending a note that she was ill.

From the store Hatch went at once to the address given in Dorchester. Miss Stanford was in. Would she see a reporter? Yes. So Hatch was ushered into the modest little parlor of a boarding-house, and after awhile Miss Stanford entered. She was as a petite blonde, with pink cheeks and blue eyes, now reddened by weeping.

Briefly Hatch explained the purpose of his visit— an effort to find Grace Field, and Miss Stanford eagerly and tearfully expressed herself as willing to tell him all she knew.

"I have known Grace for five months," she explained; "that is, from the time she came to work at the Star. Her counter is next to mine. A friendship grew up between us, and we began

rooming together. Each of us is alone in the East. She comes from the West, somewhere in Nevada, and I come from Quebec.

"Grace has never said much about herself, but I know that she had been in Boston a year or so before I met her. She lived somewhere in Brookline, I believe, but it seems that she had some funds and did not go to work until she came to the Star. This is as I understand it.

"Three days ago, on Tuesday it was, there was a letter for Grace when we came in from work. It seemed to agitate her, although she said nothing to me about what was in it, and I did not ask. She did not sleep well that night, but next morning, when we started to work, she seemed all right. That is, she was all right until we got to the subway station, and then she told me to go on to the store, saying she would be there after awhile.

"I left her, and at her request explained to the manager of our floor that she would be late. From that time to this no one has seen her or heard of her. I don't know where she could have gone," and the girl burst into tears. "I'm sure something dreadful has happened to her."

"Possibly an elopement?" Hatch suggested.

"No," said the girl, quickly. "No. She was in love, but the man she was in love with has not heard of her either. I saw him the night after she disappeared. He called here and asked for her, and seemed surprised that she had not returned home, or had not been at work."

"What's his name?" asked Hatch.

"He's a clerk in a bank," said Miss Stanford. "His name is Willis— Victor Willis. If she had eloped with him I would not have been surprised, but I am positive she did not, and if she did not, where is she?"

"Were there any other admirers you know of?" Hatch asked.

"No," said the girl, stoutly. "There may have been others who admired her, but none she cared for. She has told me too much— I— I know," she faltered.

"How long have you known Mr. Willis?" asked Hatch.

The girl's face flamed scarlet instantly.

"Only since I've known Grace," she replied. "She introduced us."

"Has Mr. Willis ever shown you any attention?"

"Certainly not," Miss Stanford flashed, angrily. "All his attention was for Grace."

There was the least trace of bitterness in the tone, and Hatch imagined he read it aright. Willis was a man whom both perhaps loved; it might be in that event that Miss Stanford knew more than she had said of the whereabouts of Grace Field. The next step was to see Willis.

"I suppose you'll do everything possible to find Miss Field?" he asked.

"Certainly," said the girl.

"Have you her photograph?"

"I have one, yes, but I don't think— I don't believe Grace—"

"Would like to have it published?" asked Hatch. "Possibly not, under ordinary circumstances— but now that she is missing it is the surest way of getting a trace of her. Will you give it to me?"

Miss Stanford was silent for a time. Then apparently she made up her mind, for she arose.

"It might be well, too," Hatch suggested, "to see if you can find the letter you mentioned."

The girl nodded and went out. When she returned she had a photograph in her hand; a glimpse of it told Hatch it was a bust picture of a woman in evening dress. The girl was studying a scrap of paper.

"What is it?" asked Hatch, quickly.

"I don't know," she responded. "I was searching for the letter when I remembered she frequently tore them up and dropped them into the waste-basket. It had been emptied every day, but I looked and found this clinging to the bottom, caught between the cane."

"May I see it?" asked the reporter.

The girl handed it to him. It was evidently a piece of a letter torn from the outer edge just where the paper was folded to put it into the envelope. On it were these words and detached letters, written in a bold hand:

*sday
ill you
to the
ho*

Hatch's eyes opened wide.

"Do you know the handwriting?" he asked.

The girl faltered an instant.

"No," she answered, finally.

Hatch studied her face a moment with cold eyes, then turned the scrap of paper over. The other side was blank. Staring down at it he veiled a glitter of anxious interest.

"And the picture?" he asked, quietly.

The girl handed him the photograph. Hatch took it and as he looked it was with difficulty he restrained an exclamation of astonishment— triumphant astonishment. Finally, with his brain teeming with possibilities, he left the house, taking the photograph and the scrap of paper. Ten minutes later he was talking to his City Editor over the 'phone.

"It's a great story," he explained, briefly. "The missing girl is the mysterious model of St. George's picture, 'Fulfillment.' "

"Great," came the voice of the City Editor.

HAVING laid his story before his City Editor, Hatch sat down to consider the fragmentary writing. Obviously "sday" represented a day of the week— either Tuesday, Wednesday, or Thursday, these being the only days where the letter "s" preceded the "day." This seemed to be a definite fact, but still it meant nothing. True, Miss Field had last been seen on Wednesday, but then?— nothing.

To the next part of the fragment Hatch attached the greatest importance. It was the possibility of a threat, — "ill you." Did it mean "kill you" or "will you" or "till you" or— or what? There might be dozens of other words ending in "ill" which he did not recall at the moment. His imagination hammered the phrase into his brain as "kill you." The "to the"— the next words— were clear, but meant nothing at all. The last letters were distinctly "ho," possibly "hope."

Then Hatch began real work on the story. First he saw the bank clerk, Victor Willis, who Miss Stanford had said loved Grace Field, and whom Hatch suspected Miss Stanford loved. He found Willis a grim, sullen-faced young man of twenty-eight years, who would say nothing.

From that point Hatch worked vigorously for several hours. At the end of that time he had found out that on Wednesday, the day of Miss Field's disappearance, a veiled woman— probably Grace Field— had called at the bank and inquired for Willis. Later, Willis, urging necessity, had asked to be allowed the day off and left the bank. He did not appear again until next morning. His actions did not impress any of his associates with the idea that he was a bridegroom; in fact, Hatch himself had given up the idea that Miss Field had eloped. There seemed no reason for an elopement.

When Hatch called at the studio, and home, of Constans St. George, to inform him of the disappearance of the model whose identity had been so long guarded, he was told that Mr. St. George was not in; that is, St. George refused to answer knocks at the door, and had not been seen for a day or so. He frequently disappeared this way, his informant said.

With these facts— and lack of facts— in his possession on Friday evening, Hatch called on Professor S. F. X. Van Dusen. The Thinking Machine received him as cordially as he ever received anybody.

"Well, what is it?" he asked.

"I don't believe this is really worth your while Professor,"

Hatch said, finally. "It's just a case of a girl who disappeared. There are some things about it which are puzzling, but I'm afraid it's only an elopement."

The Thinking Machine dragged up a footstool, planted his small feet on it comfortably and leaned back in his chair.

"Go on," he directed.

Then Hatch told the story, beginning at the time when the picture was placed in the art museum, and continuing up to the point where he had seen Willis after finding the photograph and the scrap of paper. He had always found that it saved time to begin at the beginning with The Thinking Machine; he did it now as a matter of course.

"And the scrap of paper?" asked The Thinking Machine.

"I have it here," replied the reporter.

For several minutes the scientist examined the fragment and then handed it back to the reporter.

"If one could establish some clear connection between that and the disappearance of the girl it might be valuable," he said.

"As it is now, it means nothing. Any number of letters might be thrown into the waste-basket in the room the two girls occupied, therefore dismiss this for the moment."

"But isn't it possible—" Hatch began.

"Anything is possible. Mr. Hatch," retorted the other, belligerently. "You might take occasion to see the handwriting of St. George, the artist, and see if that is his— also look at Willis's. Even if it were Willis's, however, it may mean nothing in connection with this."

"But what could have happened to Miss Field?"

"Any of fifty things," responded the other. "She might have fallen dead in the street and been removed to a hospital or undertaking establishment; she might have been arrested for shoplifting and given a wrong name; she might have gone mad and gone away; she might have eloped with another man; she might have committed suicide; she might have been murdered. The question is not what *could* have happened, but what *did*

happen."

"Yes, I thoroughly understand that," Hatch replied, with a slight smile. "But still I don't see—"

"Probably you don't," snapped the other. "We'll take it for granted that she did none of these things, with the possible exception of eloping, killing herself, or was murdered. You are convinced that she did not elope. Yet you have only run down one possible end of this— that is, the possibility of her elopement with Willis. You don't believe she did elope with him. Well, why not with St. George?"

"St George?" gasped Hatch. "A great artist elope with a shop-girl?"

"She was his ideal in a picture which you say is one of the greatest in the world," replied the other, testily. "That being true, it is perfectly possible that she was his ideal for a wife, isn't it?"

The matter had not occurred to Hatch in just that light. He nodded his head, with a feeling of having been weighed and found wanting.

"Now, you say, too, that St. George has not been seen around his studio for a couple of days," said the scientist. "What is more possible than that they are together somewhere?"

"I see," said the reporter.

"It was understood, too, as I understand it, that St. George was in love with her," went on The Thinking Machine. "So, I should imagine a solution of the mystery might be reached by taking St. George as the center of the affair. Suicide may be passed by for the moment, because she had no known motive for suicide— rather, if she loved Willis, she had every reason to live. Murder, too, may be passed for the moment— although there is a possibility that we might come back to that. Question St. George. He will listen if you make him, and then he must answer."

"But his place is all closed up," said Hatch. "It is supposed he is half crazy."

"Possibly he might be," said The Thinking Machine. "Or it is possible that he is keeping to his studio at work— or he might even be married to Miss Field and she might be there with him."

"Well, I see no way to ascertain definitely that he is there," said the reporter, and a puzzled wrinkle came into his face. "Of course I might remain on watch night and day to see if he comes out for food, or if anything to eat is sent in."

"That would take too long, and besides it might not happen at all," said The Thinking Machine. He arose and went into the adjoining room. He returned after a moment, and glanced at the clock on the mantel. "It is just nine o'clock now," he commented. "How long would it take you to get to the studio?"

"Half an hour."

"Well, go there now," directed the scientist. "If Mr. St. George is in his studio he will come out of it to-night at thirty-two minutes past nine. He will be running, and may not wear either a hat or coat."

"What?" and Hatch grinned, a weak, puzzled grin.

"You wait where he can't see you when he comes out," the scientist went on. "When he goes he may leave the door open. If he does go on see if you find any trace of Miss Field, and then, on his return, meet him at the outer door, ask him what you please, and come to see me to-morrow morning. He will be out of his studio about twenty minutes."

Vaguely Hatch felt that the scientist was talking rot, but he had seen this strange mind bring so many odd things to pass that he could not doubt this, even if it were absurd on its face.

"At thirty-two minutes past nine to-night," said the reporter, and he glanced at his watch.

"Come to see me to-morrow after you see the handwriting of Willis and St. George," directed the scientist. "Then you may also tell me just what happens to-night."

HATCH WAS FEELING like a fool. He was waiting in a darkened corner, just a few feet from St. George's studio. It was

precisely half-past nine o'clock. He had been there for seven minutes. What strange power was to bring St. George, who for two days had denied himself to everyone, out of that studio, if, indeed, he were there?

For the twentieth time Hatch glanced at his watch, which he had set with the little clock in The Thinking Machine's home. Slowly the minute hand crept around, to 9:31, 9:31½, and he heard the door of the studio rattle. Then suddenly it was thrown open and St. George appeared.

Without a glance to right or left, hatless and coatless, he rushed out of the building. Hatch got only a glimpse of his face; his lips were pressed tightly together; there was a glint of madness in his eyes. He jerked at the door once, then ran through the hall and disappeared down the stairs leading to the street. The studio door stood open behind him.

WHEN the clatter of the running footsteps had died away and Hatch heard the outer door slam, he entered the studio, closing the door behind him. It was close here, and there was a breath of Chinese incense which was almost stifling. One quick glance by the light of an incandescent told Hatch that he stood in the reception-room. Typically, from floor to ceiling, the place was the abode of an artist; there was a rich gradation of color and everywhere were scraps of art and half-finished studies.

The reporter had given up the idea of solving the mystery of why St. George had so suddenly left his apartments; now he devoted himself to a quick, minute search of the place. He found nothing to interest him in the reception-room, and went on into the studio where the artist did his work.

Hatch glanced around quickly, his eyes taking in all the details, then went to a little table which stood, half-covered with newspapers. He turned these over, then bent forward suddenly and picked up— a woman's glove. Beside it lay its mate. He stuffed them into his pocket.

Eagerly he sought now for anything that might come to

hand. At last he reached another door, leading into the bedroom. Here on a large table was a chafing dish, many dishes which had not been washed, and all the other evidences of a careless man who did a great deal of his own cooking. There was a dresser here, too, a gorgeous, mahogany affair. Hatch didn't stop to admire this because his eye was attracted by a woman's veil which lay on it. He thrust it into his pocket.

"Quite a haul I'm making," he mused, grimly.

From this room a door, half open, led into a bath-room. Hatch merely glanced in, then looked at his watch. Fifteen minutes had elapsed. He must get out, and he started for the outer door. As he opened it quietly and stepped into the hall he heard the street door open one flight below, and started down the steps. There, half way, he met St. George.

"Mr. St. George?" he asked.

"No," was the reply.

Hatch knew his man perfectly, because he had seen him half a dozen times and had talked to him twice. The denial of identity therefore was futile.

"I came to tell you that Grace Field, the model for your '*Fulfillment*,' has disappeared," Hatch went on, as the other glared at him.

"I don't care," snapped the other. He darted up the steps. Hatch listened until he heard the door of the studio close.

It was ten minutes to ten o'clock when Hatch left the building. Now he would see Miss Stanford and have her identify the gloves and the veil. He boarded a car and drew out and closely examined the gloves and veil. The gloves were tan, rather heavy, but small, and the veil was of some light, cobwebby material which he didn't know by name.

"If these are Grace Field's," the reporter argued, to himself, "it means something. If they are not, I'm simply a burglar."

There was a light in the Dorchester house where Miss Stanford lived, and the reporter rang the bell. A servant appeared.

"Would it be possible for me to see Miss Stanford for just a moment?" he asked.

"If she has not gone to bed."

He was ushered into the little parlor again. The servant disappeared, and after a moment Miss Stanford came in.

"I hated to trouble you so late," said the reporter, and she smiled at him frankly, "but I would like to ask if you have ever seen these?"

He laid in her hands the gloves and the veil. Miss Stanford studied them carefully and her hands trembled.

"The gloves, I know, are Grace's— the veil I am not so positive about," she replied.

Hatch felt a great wave of exultation sweep over him, and it stopped his tongue for an instant.

"Did you— did you find them in Mr. Willis's possession?" asked the girl.

"I am not at liberty to tell just where I found them," Hatch replied. "If they are Miss Field's— and you can swear to that, I suppose— it may mean that we have a clew."

"Oh, I was afraid it would be this way," gasped the girl, and she sank down weeping on a couch.

"Knew what would be which way?" asked Hatch, puzzled.

"I knew it! I knew it!" she sobbed. "Is there anything to connect Mr. Willis directly with the— *the murder*?"

The reporter started to say something, then paused. He wasn't quite sure of himself. He had uncovered something, he didn't know what yet.

"It would be better, Miss Stanford," he explained, gently, "if you would tell me all you know about this affair. The things which are now in my possession are fragmentary— if you could give me any new detail it would be only serving the ends of justice."

For a little while the girl was silent, then she arose and faced him.

"Is Mr. Willis yet under arrest?" she asked, calmly now.

"Not yet," said the reporter.

"Then I will say nothing else," she declared, and her lips closed in a straight line.

"What was the motive for murder?" Hatch, insisted.

"I will say nothing else," she replied, firmly.

"And what makes you positive there was murder?"

"Good-night. You need not come again, for I will not see you."

Miss Stanford turned and left the room. Hatch, sadly puzzled, bewildered, stood staring after her a moment, then went out, his brain alive with possibilities, with intangible ends which would not be connected. He was eager to lay the new facts before The Thinking Machine.

From Dorchester the reporter took a car for his home. In his room, with the tangible threads of the mystery spread out on a table, he thought and surmised far into the night, and when he finally replaced them all in his pocket and turned down the light it was with a hopeless shake of his head.

On the following morning when Hatch arose he picked up a paper and went to breakfast. He spread the paper before him and there— the first thing he saw— was a huge headline, stating that a burglar had entered the room of Constans St. George and had tried to kill Mr. St. George. A shot had been fired at him and had passed through his left arm.

Mr. St. George had been asleep when the door of his apartments was burst in by the thief. The artist arose at the noise, and as he stepped into the reception-room had been shot. The wound was trivial. The burglar escaped; there was no clew.

IT WAS a long story of seemingly hopeless complications that Hatch told The Thinking Machine that morning. Nothing connected with anything, and yet here was a series of happenings, all apparently growing out of the disappearance of Miss Field, and which must have some relation one to the other.

At the conclusion of the story, Hatch passed over the newspaper containing the account of the burglary in the studio. The artist had been removed to a hospital.

The Thinking Machine read the newspaper account and turned to the reporter with a question:

"Did you see Willis's handwriting?"

"Not yet," replied the reporter.

"See it at once," instructed the other. "If possible, bring me a sample of it. Did you see St. George's handwriting?"

"No," the reporter confessed.

"See that and bring me a sample if you can. Find out first if Willis has a revolver now or has ever had. If so, see it and see if it is loaded or empty— its exact condition. Find out also if St. George has a revolver— and if he has one, get possession of it if it is in your power."

The scientist twisted the two gloves and the veil which Hatch had given to him in his fingers idly, then passed them to the reporter again.

Hatch arose and stood waiting, hat in hand.

"Also find out," The Thinking Machine went on, "the exact condition of St. George— his mental condition particularly. Find out if Willis is at his office in the bank to-day, and, if possible, where and how he spent last night. That's all."

"And Miss Stanford?" asked Hatch.

"Never mind her," replied The Thinking Machine. "I may see her myself. These other things are of immediate consequence. The minute you satisfy yourself come back to me. Quickness on your part may prevent a tragedy."

The reporter went away hurriedly. At four o'clock that afternoon he returned. The Thinking Machine greeted him; he held a piece of letter-paper in his hand.

"Well?" he asked.

"The handwriting is Willis's," said Hatch, without hesitation. "I saw a sample— it is identical, and the paper on which he writes is identical."

The scientist grunted.

"I also saw some of St. George's writing," the reporter went on, as if he were reciting a lesson. "It is wholly dissimilar."

The Thinking Machine nodded.

"Willis has no revolver that anyone ever heard of," Hatch continued. "He was at dinner with several of his fellow employees last night, and left the restaurant at eight o'clock."

"Been drinking?"

"Might have had a few drinks," responded the reporter. "He is not a drinking man."

"Has St. George a revolver?"

"I was unable to find that out or do anything except get a sample of his writing from another artist," the reporter explained. "He is in a hospital, raving crazy. It seems to be a return of the trouble he had once before, except it is worse. The wound itself is not bad."

The scientist was studying the sheet of paper.

"Have you that scrap?" he asked.

Hatch produced it, and the scientist placed it on the sheet; Hatch could only conjecture that he was fitting it to something else already there. He was engaged in this work when Martha entered.

"The young lady who was here earlier to-day wants to see you again," she announced.

"Show her in," directed The Thinking Machine, without raising his eyes.

Martha disappeared, and after a moment Miss Stanford entered. Hatch, himself unnoticed, stared at her curiously, and arose, as did the scientist. The girl's face was flushed a little, and there was an eager expression in her eyes.

"I know he didn't do it," she began. "I've just gotten a letter from Springfield stating that he was there on the day Grace went away— and— "

"Know who didn't do what?" asked the scientist.

"That Mr. Willis didn't kill Grace," replied the girl, her

enthusiasm suddenly checked. "See here."

The scientist read a letter which she offered, and the girl sank into a chair. Then for the first time she saw Hatch and her eyes expressed her surprise. She stared at him a moment, then nodded a greeting, after which she fell to watching The Thinking Machine.

"Miss Stanford," he said, at length, "you made several mistakes when you were here before in not telling me the truth — all of it. If you will tell me all you know of this case I may be able to see it more clearly."

The girl reddened and stammered a little, then her lips trembled.

"Do you *know*— not conjecture, but *know*— whether or not Miss Field, or Grace, as you call her, was engaged to Willis?" the irritated voice asked.

"I— I know it, yes," she stammered.

"And you were in love with Mr. Willis— you *are* in love with him?"

Again the tell-tale blush swept over her face. She glanced at Hatch; it was the nervousness of a girl who is driven to a confession of love.

"I regard Mr. Willis very highly," she said, finally, her voice low.

"Well," and the scientist arose and crossed to where the girl sat, "don't you see that a very grave charge might be brought home to you if you don't tell all of this? The girl has disappeared. There might be even a hint of murder in which your name would be mentioned. Don't you see?"

There was a long pause, and the girl stared steadily into the squint eyes above her. Finally her eyes fell.

"I think I understand. Just what is it you want me to answer?"

"Did or did you not ever hear Mr. Willis threaten Miss Field?"

"I did once, yes."

"Did or did you not know that Miss Field was the original of the painting?"

"I did not."

"It is a semi-nude picture, isn't it?"

Again there was a flush in the girl's face.

"I have heard it was," she said. "I have never seen it. I suggested to Grace several times that we go to see it, but she never would. I understand why now."

"Did Willis know she was the original of that painting? That is, knowing it yourself now, do you have any reason to suppose that he previously knew?"

"I don't know," she said, frankly. "I know that there was something which was always causing friction between them— something they quarreled about. It might have been that. That was when I heard Mr. Willis threaten her— it was something about shooting her if she ever did something— I don't know what."

"Miss Field knew him before you did, I think you said?"

"She introduced me to him."

The Thinking Machine fingered the sheet of paper he held.

"Did you know what those scraps of paper you brought me contained?"

"Yes, in a way," said the girl.

"Why did you bring them, then?"

"Because you told me you knew I had them, and I was afraid it might make more trouble for me and for Mr. Willis if I did not."

The Thinking Machine passed the sheet to Hatch.

"This will interest you, Mr. Hatch," he explained. "Those words and letters in parentheses are what I have supplied to complete the full text of the note, of which you had a mere scrap. You will notice how the scrap you had fitted into it."

The reporter read this:

If you go to th(at stud)io Wednesday to see that artist, (I will k)ill you bec(ause I w)on't have it known to the world that(t you a)re a model. I hope you will heed this warning.

V. W.

The reporter stared at the patched-up letter, pasted together with infinite care, and then glanced at The Thinking Machine, who settled himself again comfortably in the chair.

"And now, Miss Stanford," asked the scientist, in a most matter-of-fact tone, "where is the body of Miss Field?"

THE BLUNT question aroused the girl, and she arose suddenly, staring at The Thinking Machine. He did not move. She stood as if transfixed, and Hatch saw her bosom rise and fall rapidly with the emotion she was seeking to repress.

"Well?" asked The Thinking Machine.

"I don't know," flamed Miss Stanford, suddenly, almost fiercely. "I don't even know she is dead. I know that Mr. Willis did not kill her, because, as that letter I gave you shows, he was in Springfield. I won't be tricked into saying anything further."

The outburst had no appreciable effect on The Thinking Machine beyond causing him to raise his eyebrows slightly as he looked at the defiant little figure.

"When did you last see Mr. Willis have a revolver?"

"I know nothing of any revolver. I know only that Victor Willis is innocent as you are, and that I love him. Whatever has become of Grace Field I don't know."

Tears leaped suddenly to her eyes, and, turning, she left the room. After a moment they heard the outer door slam as she passed out. Hatch turned to the scientist with a question in his eyes.

"Did you smell anything like chloroform or ether when you were in St. George's apartments?" asked The Thinking Machine as he arose.

"No," said Hatch. "I only noticed that the place seemed

close, and there was an odor of Chinese incense— joss sticks— which was almost stifling."

The Thinking Machine looked at the reporter quickly, but said nothing. Instead, he passed out of the room, to return a few minutes later with his hat and coat on.

"Where are we going?" asked Hatch.

"To St. George's studio," was the answer.

Just then the telephone bell in the next room rang. The scientist answered it in person.

"Your City Editor," he called to Hatch.

Hatch went to the 'phone and remained there several minutes. When he came back there was a new excitement in his face.

"What is it?" asked the scientist.

"Another queer thing my City Editor told me," Hatch responded. "Constans St. George, raving mad, has escaped from the hospital and disappeared."

"Dear me, dear me!" exclaimed the scientist, quickly. It was as near surprise as he ever showed. "Then there is danger."

With quick steps he went to the telephone and called up Police Headquarters.

"Detective Mallory," Hatch heard him ask for. "Yes. This is Professor Van Dusen. Please meet me immediately here at my house. Be here in ten minutes? Good. I'll wait. It's a matter of great importance. Good-by."

Then impatiently The Thinking Machine moved about, waiting. The reporter, whose acquaintance with the logician was an extended one, had never seen him in just such a state. It started when he heard St. George had escaped.

At last they left the house and stood waiting on the steps until Detective Mallory appeared in a cab. Into that Hatch and The Thinking Machine climbed, after the latter had given some direction, and the cabby drove rapidly away. It was all a mystery to Hatch, and he was rather glad of it when Detective Mallory asked what it meant.

"Means that there is danger of a tragedy," said The Thinking Machine, crustily. "We may be in time to avert it. There is just a chance. If I'd only known this an hour ago— even half an hour ago— it might have been stopped."

The Thinking Machine was the first man out of the cab when it stopped, and Hatch and the detective followed quickly.

"Is Mr. St. George in his apartments?" asked the scientist of the elevator boy.

"No, sir," said the boy. "He's in hospital, shot."

"Is there a key to his place? Quick."

"I think so, sir, but I can't give it to you."

"Here, give it to me, then!" exclaimed the detective. He flashed a badge in the boy's eyes, and the youth immediately lost a deal of his coolness.

"Gee, a detective! Yes, sir."

"How many rooms has Mr. St. George?" asked the scientist.

"Three and a bath," the boy responded.

Two minutes later the three men stood in the reception-room of the apartments. There came to them from somewhere inside a deadly, stifling odor of chloroform. After one glance around The Thinking Machine rushed into the next room, the studio.

"Dear me, dear me!" he exclaimed.

There on the floor lay huddled the figure of a man. Blood had run from several wounds on his head. The Thinking Machine stooped a moment, and his slender fingers fumbled over the heart.

"Unconscious, that's all," he said, and he raised the man up.

"Victor Willis!" exclaimed Hatch.

"Victor Willis!" repeated The Thinking Machine, as if puzzled. "Are you sure?"

"Certain," said Hatch, positively. "It's the bank clerk."

"Then we are too late," declared the scientist.

He arose and looked about the room. A door to his right attracted his attention. He jerked it open and peered in. It was a

clothes press. Another small door on the other side of the room was also thrown open. Here was as a kitchenette, with a great quantity of canned stuffs.

The Thinking Machine went on into the little bedroom which Hatch had searched. He flung open the bathroom and peered in, only to shut it immediately. Then he tried the handle of another door, a closet. It was fastened.

"Ah!" he exclaimed.

Then on his hands and knees he sniffed at the crack between the door and the flooring. Suddenly, as if satisfied, he arose and stepped away from the door.

"Smash that door in," he directed.

Detective Mallory looked at him stupefied. There was a similar expression on Hatch's face.

"What's— what's in there?" the detective asked.

"Smash it," said the other, tartly. "Smash it, or God knows what you'll find in there."

The detective, a powerful man, and Hatch threw their weight against the door; it stood rigid. They pulled at the handle; it refused to yield.

"Lend me your revolver?" asked The Thinking Machine.

The weapon was in his hand almost before the detective was aware of it, and, placing the barrel to the keyhole, The Thinking Machine pulled the trigger. There was a resonant report, the lock was smashed and the detective put out his hand to open the door.

"Look out for a shot," warned The Thinking Machine, sharply.

THE Thinking Machine drew Detective Mallory and Hatch to one side, out of immediate range of any person who might rush out, then pulled the closet door open. A cloud of suffocating fumes— the sweet, sickening odor of chloroform— gushed out, but there was no sound from inside. The detective looked at The Thinking Machine inquiringly.

Carefully, almost gingerly, the scientist peered around the

edge of the door. What he saw did not startle him, because it was what he expected. It was Constans St. George lying prone on the floor as if dead, with a blood-spattered revolver clasped loosely in one hand; the other hand grasped the throat of a woman, a woman of superb physical beauty, who also lay with face upturned, staring glassily.

"Open the windows— all of them, then help me," commanded the scientist.

As Detective Mallory and Hatch turned to obey the instructions, The Thinking Machine took the revolver from the inert fingers of the artist. Then Hatch and Mallory returned and together they lifted the unconscious forms toward a window.

"It's Grace Field," said the reporter.

In silence for half an hour the scientist labored over the unconscious forms of his three patients. The detective and reporter stood by, doing only what they were told to do. The wind, cold and stinging, came pouring through the windows, and it was only a few minutes until the chloroform odor was dissipated. The first of the three unconscious ones to show any sign of returning comprehension was Victor Willis, whose presence at all in the apartments furnished one of the mysteries which Hatch could not fathom.

It was evident that his condition was primarily due to the wounds on his head— two of which bled profusely. The chloroform had merely served to further deaden his mentality. The wounds were made with the butt of the revolver, evidently in the hands of the artist. Willis's eyes opened finally and he stared at the faces bending over him with uncomprehending eyes.

"What happened?" he asked.

"You're all right now," was the scientist's assuring answer. "This man is your prisoner, Detective Mallory, for breaking and entering and for the attempted murder of Mr. St. George."

Detective Mallory was delighted. Here was something he could readily understand; a human being given over to his care;

a tangible thing to put handcuffs on and hold. He immediately proceeded to put the handcuffs on.

"Any need of an ambulance?" he asked.

"No," replied The Thinking Machine. "He'll be all right in half an hour."

Gradually as reason came back Willis remembered. He turned his head at last and saw the inert bodies of St. George and Grace Field, the girl whom he had loved.

"She was here, then!" he exclaimed suddenly, violently. "I knew it. Is she dead?"

"Shut up that young fool's mouth, Mr. Mallory," commanded the scientist, sharply. "Take him in the other room or send him away."

Obediently Mallory did as directed; there was that in the voice of this cold, calm being, The Thinking Machine, which compelled obedience. Mallory never questioned motives or orders.

Willis was able to walk to the other room with help. Miss Field and St. George lay side by side in the cold wind from the open window. The Thinking Machine had forced a little whiskey down their throats, and after a time St. George opened his eyes.

The artist was instantly alert and tried to rise. He was weak, however, and even a strength given to him by the madness which blazed in his eyes did not avail. At last he lay raving, cursing, shrieking. The Thinking Machine regarded him closely.

"Hopeless," he said, at last.

Again for many minutes the scientist worked with the girl. Finally he asked that an ambulance be sent for. The detective called up the City Hospital on the telephone in the apartments and made the request. The Thinking Machine stared alternately at the girl and at the artist.

"Hopeless," he said again. "St. George, I mean."

"Will the girl recover?" asked Hatch.

"I don't know," was the frank reply. "She's been partly stupefied for days— ever since she disappeared, as a matter of

fact. If her physical condition was as good as her appearance indicates she may recover. Now the hospital is the best place for her."

It was only a few minutes before two ambulances came and the three persons were taken away; Willis a prisoner, and a sullen, defiant prisoner, who refused to speak or answer questions; St. George raving hideously and cursing frightfully; the woman, beautiful as a marble statue, and colorless as death.

When they had all gone, The Thinking Machine went back into the bedroom and examined more carefully the little closet in which he had found the artist and Grace Field. It was practically a padded cell, relatively six feet each way. Heavy cushions of felt two or three inches thick covered the interior of the little room closely. In the top of it there was a small aperture, which had permitted some of the fumes of the chloroform to escape. The place was saturated with the poison.

"Let's go," he said, finally.

Detective Mallory and Hatch followed him out and a few minutes later sat opposite him in his little laboratory. Hatch had told a story over the telephone that made his City Editor rejoice madly; it was news, great, big, vital news.

"Now, Mr. Hatch, I suppose you want some details," said The Thinking Machine, as he relapsed into his accustomed attitude. "And you, too, Mr. Mallory, since you are holding Willis a prisoner on my say-so. Would you like to know why?"

"Sure," said the detective.

"Let's go back a little— begin at the beginning, where Mr. Hatch called on me," said The Thinking Machine. "I can make the matter clearer that way. And I believe the cause of justice, Mr. Mallory, requires absolute accuracy and clarity in all things, does it not?"

"Sure," said the detective again.

"Well, Mr. Hatch told me at some length of the preliminaries of this case," explained The Thinking Machine. "He told me the history of the picture; the mystery as to the identity of the

model; her great beauty; how he found her to be Grace Field, a shop-girl. He also told me of the mental condition of the artist, St. George, and repeated the rumor as he knew it about the artist being heartbroken because the girl— his model— would not marry him.

"All this brought the artist into the matter of the girl's disappearance. She represented to him, physically, the highest ideal of which he could conceive— hope, success, life itself. Therefore it was not astonishing that he should fall in love with her; and it is not difficult to imagine that the girl did not fall in love with him. She is a beautiful woman, but not necessarily a woman of mentality; he is a great artist, eccentric, childish even in certain things. They were two natures totally opposed.

"These things I could see instantly. Mr. Hatch showed me the photograph and also the scrap of paper. At the time the scrap of paper meant nothing. As I pointed out, it might have no bearing at all, yet it made it necessary for me to know whose handwriting it was. If Willis's, it still might mean nothing; if St. George's, a great deal, because it showed a direct thread to him. There was reason to believe that any friendship between them had ended when the picture was exhibited.

"It was necessary, therefore, even that early in the work of reducing the mystery to logic to center it about St. George. This I explained to Mr. Hatch and pointed out the fact that the girl and the artist might have eloped— were possibly together somewhere. First it was necessary to get to the artist; Mr. Hatch had not been able to do so.

"A childish simple trick, which seemed to amaze Mr. Hatch considerably, brought the artist out of his rooms after he had been there closely for two days. I told Mr. Hatch that the artist would leave his rooms, if he were there, one night at 9:32, and told him to wait in the hall, then if he left the door open to enter the apartments and search for some trace of the girl. Mr. St. George did leave his apartments at the time I mentioned, and—
"

"But why, how?" asked Hatch.

"There was one thing in the world that St. George loved with all his heart," explained the scientist. "That was his picture. Every act of his life has demonstrated that. I looked at a telephone book; I found he had a 'phone. If he were in his rooms, locked in, it was a bit of common sense that his telephone was the best means of reaching him. He answered the 'phone; I told him, just at 9:30, that the Art Museum was on fire and his picture in danger.

"St. George left his apartments to go and see, just as I knew he would, hatless and coatless, and leaving the door open. Mr. Hatch went inside and found two gloves and a veil, all belonging to Miss Field. Miss Stanford identified them and asked if he had gotten them from Willis, and if Willis had been arrested. Why did she ask these questions? Obviously because she knew, or thought she knew, that Willis had some connection with the affair.

"Mr. Hatch detailed all his discoveries and the conversation with Miss Stanford to me on the day after I 'phoned to St. George, who, of course, had found no fire. It showed that Miss Stanford suspected Willis, whom she loved, of the murder of Miss Field. Why? Because she had heard him threaten. He's a hare-brained young fool, anyway. What motive? Jealousy. Jealousy of what? He knew in some way that she had posed for a semi-nude picture, and that the man who painted it loved her. There is your jealousy. It explains Willis's every act."

The Thinking Machine paused a moment, then went on:

"This conversation with Mr. Hatch made me believe Miss Stanford knew more than she was willing to tell. In what way? By a letter? Possibly. She had given Mr. Hatch a scrap of a letter; perhaps she had found another letter, or more of this one. I sent her a note, telling her I knew she had these scraps of letters, and she promptly brought them to me. She had found them after Mr. Hatch saw her first somewhere in the house— in a bureau drawer she said, I think.

"Meanwhile, Mr. Hatch had called my attention to the burglary of St. George's apartments. One reading of that convinced me that it was Willis who did this. Why? Because burglars don't burst in doors when they think anyone is inside; they pick the lock. Knowing, too, Willis's insane jealousy, I figured that he would be the type of man who would go there to kill St. George if he could, particularly if he thought the girl was there.

"Thus it happened that I was not the only one to think that St. George knew where the girl was. Willis, the one most interested, thought she was there. I questioned Miss Stanford mercilessly, trying to get more facts about the young man from her which would bear on this, trying to trick her into some statement, but she was loyal to the last.

"All these things indicated several things. First, that Willis didn't actually know where the girl was, as he would have known had he killed her; second, that if she had disappeared with a man, it was St. George, as there was no other apparent possibility; third, that St. George would be with her or near her, even if he had killed her; fourth, the pistol shot through the arm had brought on again a mental condition which threatened his entire future, and now as it happens has blighted it.

"Thus, Miss Field and St. George were together. She loved Willis devotedly, therefore she was with St. George against her will, or she was dead. Where? In his rooms? Possibly. I determined to search there. I had just reached this determination when I heard St. George, violently insane, had escaped from the hospital. He had only one purpose then— to get to the woman. Then she was in danger.

"I reasoned along these lines, rushed to the artist's apartments, found Willis there wounded. He had evidently been there searching when St. George returned, and St. George had attacked him, as a madman will, and with the greater strength of a madman. Then I knew the madman's first step. It would be the end of everything for him; therefore the death of the girl and his

own. How? By poison preferably, because he would not shoot her— he loved beauty too much. Where? Possibly in the place where she had been all along, the closet, carefully padded and prepared to withstand noises. It is really a padded cell. I have an idea that the artist, sometimes overcome by his insane fits, and knowing when they would come, prepared this closet and used it himself occasionally. Here the girl could have been kept and her shrieks would never have been heard. You know the rest."

The Thinking Machine stopped and arose, as if to end the matter. The others arose, too.

"I took you, Mr. Mallory, because you were a detective, and I knew I could force a way into the apartments which I imagined would be locked. I think that's all."

"But how did the girl get there?" asked Hatch.

"St. George evidently asked her to come, possibly to pose again. It was a gratification to the girl to do this— a little touch of vanity caused her to pose in the first place. It was this vanity that Willis was fighting so hard, and which led to his threats and his efforts to kill St. George. Of course the artist was insane when she came; his frantic love for her led him to make her a prisoner and hold her against her will. You saw how well he did it."

There was an awed pause. Hatch was rubbing the nap of his hat against his sleeve, thoughtfully. Detective Mallory had nothing to say; it was all said. Both turned as if to go, but the reporter had two more questions.

"I suppose St. George's case is hopeless?"

"Absolutely. It will end in a few months with his death."

"And Miss Field?"

"If she is not dead by this time she will recover. Wait a minute." He went into the next room and they heard the telephone bell jingle. After a time he came out. "She will recover," he said. "Good afternoon."

Wonderingly, Hutchinson Hatch, reporter, and Detective Mallory passed down the street together.

5. The Problem of Cell 13

Boston American Oct 30-Nov 5 1905, as "The Mystery of Cell 13".

PRACTICALLY all those letters remaining in the alphabet after Augustus S. F. X. Van Dusen was named were afterward acquired by that gentleman in the course of a brilliant scientific career, and, being honorably acquired, were tacked on to the other end. His name, therefore, taken with all that belonged to it, was a wonderfully imposing structure. He was a Ph.D., an LL.D., an F.R.S., an M.D., and an M.D.S. He was also some other things—just what he himself couldn't say—through recognition of his ability by various foreign educational and scientific institutions.

In appearance he was no less striking than in nomenclature. He was slender with the droop of the student in his thin shoulders and the pallor of a close, sedentary life on his clean-shaven face. His eyes wore a perpetual, forbidding squint—the squint of a man who studies little things—and when they could be seen at all through his thick spectacles, were mere slits of watery blue. But above his eyes was his most striking feature. This was a tall, broad brow, almost abnormal in height and width, crowned by a heavy shock of bushy, yellow hair. All these things conspired to give him a peculiar, almost grotesque, personality.

Professor Van Dusen was remotely German. For generations his ancestors had been noted in the sciences; he was the logical result, the master mind. First and above all he was a logician. At least thirty-five years of the half-century or so of his existence had been devoted exclusively to proving that two and two always equal four, except in unusual cases, where they equal three or five, as the case may be. He stood broadly on the general proposition that all things that start must go somewhere, and was able to bring the concentrated mental force of his forefathers to bear on a given problem. Incidentally

it may be remarked that Professor Van Dusen wore a No. 8 hat.

The world at large had heard vaguely of Professor Van Dusen as the Thinking Machine. It was a newspaper catch-phrase applied to him at the time of a remarkable exhibition at chess; he had demonstrated then that a stranger to the game might, by the force of inevitable logic, defeat a champion who had devoted a lifetime to its study. The Thinking Machine! Perhaps that more nearly described him than all his honorary initials, for he spent week after week, month after month, in the seclusion of his small laboratory from which had gone forth thoughts that staggered scientific associates and deeply stirred the world at large.

It was only occasionally that The Thinking Machine had visitors, and these were usually men who, themselves high in the sciences, dropped in to argue a point and perhaps convince themselves. Two of these men, Dr. Charles Ransome and Alfred Fielding, called one evening to discuss some theory which is not of consequence here.

"Such a thing is impossible," declared Dr. Ransome emphatically, in the course of the conversation.

"Nothing is impossible," declared The Thinking Machine with equal emphasis. He always spoke petulantly. "The mind is master of all things. When science fully recognizes that fact a great advance will have been made."

"How about the airship?" asked Dr. Ransome.

"That's not impossible at all," asserted The Thinking Machine. "It will be invented some time. I'd do it myself, but I'm busy."

Dr. Ransome laughed tolerantly.

"I've heard you say such things before," he said. "But they mean nothing. Mind may be master of matter, but it hasn't yet found a way to apply itself. There are some things that can't be thought out of existence, or rather which would not yield to any amount of thinking."

"What, for instance?" demanded The Thinking Machine.

Dr. Ransome was thoughtful for a moment as he smoked.

"Well, say prison walls," he replied. "No man can think himself out of a cell. If he could, there would be no prisoners."

"A man can so apply his brain and ingenuity that he can leave a cell, which is the same thing," snapped The Thinking Machine.

Dr. Ransome was slightly amused.

"Let's suppose a case," he said, after a moment. "Take a cell where prisoners under sentence of death are confined— men who are desperate and, maddened by fear, would take any chance to escape— suppose you were locked in such a cell. Could you escape?"

"Certainly," declared The Thinking Machine.

"Of course," said Mr. Fielding, who entered the conversation for the first time, "you might wreck the cell with an explosive— but inside, a prisoner, you couldn't have that."

"There would be nothing of that kind," said The Thinking Machine. "You might treat me precisely as you treated prisoners under sentence of death, and I would leave the cell."

"Not unless you entered it with tools prepared to get out," said Dr. Ransome.

The Thinking Machine was visibly annoyed and his blue eyes snapped.

"Lock me in any cell in any prison anywhere at any time, wearing only what is necessary, and I'll escape in a week," he declared, sharply.

Dr. Ransome sat up straight in the chair, interested. Mr. Fielding lighted a new cigar.

"You mean you could actually think yourself out?" asked Dr. Ransome.

"I would get out," was the response.

"Are you serious?"

"Certainly I am serious."

Dr. Ransome and Mr. Fielding were silent for a long time.

"Would you be willing to try it?" asked Mr. Fielding, finally.

"Certainly," said Professor Van Dusen, and there was a trace of irony in his voice. "I have done more asinine things than that to convince other men of less important truths."

The tone was offensive and there was an undercurrent strongly resembling anger on both sides. Of course it was an absurd thing, but Professor Van Dusen reiterated his willingness to undertake the escape and it was decided upon.

"To begin now," added Dr. Ransome.

"I'd prefer that it begin to-morrow," said The Thinking Machine, "because—"

"No, now," said Mr. Fielding, flatly. "You are arrested, figuratively, of course, without any warning locked in a cell with no chance to communicate with friends, and left there with identically the same care and attention that would be given to a man under sentence of death. Are you willing?"

"All right, now, then," said the Thinking Machine, and he arose.

"Say, the death-cell in Chisholm Prison."

"The death-cell in Chisholm Prison."

"And what will you wear?"

"As little as possible," said The Thinking Machine. "Shoes, stockings, trousers and a shirt."

"You will permit yourself to be searched, of course?"

"I am to be treated precisely as all prisoners are treated," said The Thinking Machine. "No more attention and no less."

There were some preliminaries to be arranged in the matter of obtaining permission for the test, but all three were influential men and everything was done satisfactorily by telephone, albeit the prison commissioners, to whom the experiment was explained on purely scientific grounds, were sadly bewildered. Professor Van Dusen would be the most distinguished prisoner they had ever entertained.

When The Thinking Machine had donned those things which he was to wear during his incarceration he called the little old woman who was his housekeeper, cook and maid servant all in

one.

"Martha," he said, "it is now twenty-seven minutes past nine o'clock. I am going away. One week from to-night, at half-past nine, these gentlemen and one, possibly two, others will take supper with me here. Remember Dr. Ransome is very fond of artichokes."

The three men were driven to Chisholm Prison, where the Warden was awaiting them, having been informed of the matter by telephone. He understood merely that the eminent Professor Van Dusen was to be his prisoner, if he could keep him, for one week; that he had committed no crime, but that he was to be treated as all other prisoners were treated.

"Search him," instructed Dr. Ransome.

The Thinking Machine was searched. Nothing was found on him; the pockets of the trousers were empty; the white, stiff-bosomed shirt had no pocket. The shoes and stockings were removed, examined, then replaced. As he watched all these preliminaries— the rigid search and noted the pitiful, childlike physical weakness of the man, the colorless face, and the thin, white hands— Dr. Ransome almost regretted his part in the affair.

"Are you sure you want to do this?" he asked.

"Would you be convinced if I did not?" inquired The Thinking Machine in turn.

"No."

"All right. I'll do it."

What sympathy Dr. Ransome had was dissipated by the tone. It nettled him, and he resolved to see the experiment to the end; it would be a stinging reproof to egotism.

"It will be impossible for him to communicate with anyone outside?" he asked.

"Absolutely impossible," replied the warden. "He will not be permitted writing materials of any sort."

"And your jailers, would they deliver a message from him?"

"Not one word, directly or indirectly," said the warden. "You

may rest assured of that. They will report anything he might say or turn over to me anything he might give them."

"That seems entirely satisfactory," said Mr. Fielding, who was frankly interested in the problem.

"Of course, in the event he fails," said Dr. Ransome, "and asks for his liberty, you understand you are to set him free?"

"I understand," replied the warden.

The Thinking Machine stood listening, but had nothing to say until this was all ended, then:

"I should like to make three small requests. You may grant them or not, as you wish."

"No special favors, now," warned Mr. Fielding.

"I am asking none," was the stiff response. "I would like to have some tooth powder— buy it yourself to see that it is tooth powder— and I should like to have one five-dollar and two ten-dollar bills."

Dr. Ransome, Mr. Fielding and the warden exchanged astonished glances. They were not surprised at the request for tooth powder, but were at the request for money.

"Is there any man with whom our friend would come in contact that he could bribe with twenty-five dollars?" asked Dr. Ransome of the warden.

"Not for twenty-five hundred dollars," was the positive reply.

"Well, let him have them," said Mr. Fielding. "I think they are harmless enough."

"And what is the third request?" asked Dr. Ransome.

"I should like to have my shoes polished."

Again the astonished glances were exchanged. This last request was the height of absurdity, so they agreed to it. These things all being attended to, The Thinking Machine was led back into the prison from which he had undertaken to escape.

"Here is Cell 13," said the warden, stopping three doors down the steel corridor. "This is where we keep condemned murderers. No one can leave it without my permission; and no one in it can communicate with the outside. I'll stake my

reputation on that. It's only three doors back of my office and I can readily hear any unusual noise."

"Will this cell do, gentlemen?" asked The Thinking Machine. There was a touch of irony in his voice.

"Admirably," was the reply.

The heavy steel door was thrown open, there was a great scurrying and scampering of tiny feet, and The Thinking Machine passed into the gloom of the cell. Then the door was closed and double locked by the warden.

"What is that noise in there?" asked Dr. Ransome, through the bars.

"Rats— dozens of them," replied The Thinking Machine, tersely.

The three men, with final good-nights, were turning away when The Thinking Machine called:

"What time is it exactly, warden?"

"Eleven seventeen," replied the warden.

"Thanks. I will join you gentlemen in your office at half-past eight o'clock one week from to-night," said The Thinking Machine.

"And if you do not?"

"There is no 'if' about it."

CHISHOLM Prison was a great, spreading structure of granite, four stories in all, which stood in the center of acres of open space. It was surrounded by a wall of solid masonry eighteen feet high, and so smoothly finished inside and out as to offer no foothold to a climber, no matter how expert. Atop of this fence, as a further precaution, was a five-foot fence of steel rods, each terminating in a keen point. This fence in itself marked an absolute deadline between freedom and imprisonment, for, even if a man escaped from his cell, it would seem impossible for him to pass the wall.

The yard, which on all sides of the prison building was twenty-five feet wide, that being the distance from the building

to the wall, was by day an exercise ground for those prisoners to whom was granted the boon of occasional semi-liberty. But that was not for those in Cell 13. At all times of the day there were armed guards in the yard, four of them, one patrolling each side of the prison building.

By night the yard was almost as brilliantly lighted as by day. On each of the four sides was a great arc light which rose above the prison wall and gave to the guards a clear sight. The lights, too, brightly illuminated the spiked top of the wall. The wires which fed the arc lights ran up the side of the prison building on insulators and from the top story led out to the poles supporting the arc lights.

All these things were seen and comprehended by The Thinking Machine, who was only enabled to see out his closely barred cell window by standing on his bed. This was on the morning following his incarceration. He gathered, too, that the river lay over there beyond the wall somewhere, because he heard faintly the pulsation of a motor boat and high up in the air saw a river bird. From that same direction came the shouts of boys at play and the occasional crack of a batted ball. He knew then that between the prison wall and the river was an open space, a playground.

Chisholm Prison was regarded as absolutely safe. No man had ever escaped from it. The Thinking Machine, from his perch on the bed, seeing what he saw, could readily understand why. The walls of the cell, though built he judged twenty years before, were perfectly solid, and the window bars of new iron had not a shadow of rust on them. The window itself, even with the bars out, would be a difficult mode of egress because it was small.

Yet, seeing these things, The Thinking Machine was not discouraged. Instead, he thoughtfully squinted at the great arc light— there was bright sunlight now— and traced with his eyes the wire which led from it to the building. That electric wire, he reasoned, must come down the side of the building not a great

distance from his cell. That might be worth knowing.

Cell 13 was on the same floor with the offices of the prison—that is, not in the basement, nor yet upstairs. There were only four steps up to the office floor, therefore the level of the floor must be only three or four feet above the ground. He couldn't see the ground directly beneath his window, but he could see it further out toward the wall. It would be an easy drop from the window. Well and good.

Then The Thinking Machine fell to remembering how he had come to the cell. First, there was the outside guard's booth, a part of the wall. There were two heavily barred gates there, both of steel. At this gate was one man always on guard. He admitted persons to the prison after much clanking of keys and locks, and let them out when ordered to do so. The warden's office was in the prison building, and in order to reach that official from the prison yard one had to pass a gate of solid steel with only a peep-hole in it. Then coming from that inner office to Cell 13, where he was now, one must pass a heavy wooden door and two steel doors into the corridors of the prison; and always there was the double-locked door of Cell 13 to reckon with.

There were then, The Thinking Machine recalled, seven doors to be overcome before one could pass from Cell 13 into the outer world, a free man. But against this was the fact that he was rarely interrupted. A jailer appeared at his cell door at six in the morning with a breakfast of prison fare; he would come again at noon, and again at six in the afternoon. At nine o'clock at night would come the inspection tour. That would be all.

"It's admirably arranged, this prison system," was the mental tribute paid by The Thinking Machine. "I'll have to study it a little when I get out. I had no idea there was such great care exercised in the prisons."

There was nothing, positively nothing, in his cell, except his iron bed, so firmly put together that no man could tear it to pieces save with sledges or a file. He had neither of these. There was not even a chair, or a small table, or a bit of tin or crockery.

Nothing! The jailer stood by when he ate, then took away the wooden spoon and bowl which he had used.

One by one these things sank into the brain of The Thinking Machine. When the last possibility had been considered he began an examination of his cell. From the roof, down the walls on all sides, he examined the stones and the cement between them. He stamped over the floor carefully time after time, but it was cement, perfectly solid. After the examination he sat on the edge of the iron bed and was lost in thought for a long time. For Professor Augustus S. F. X. Van Dusen, The Thinking Machine, had something to think about.

He was disturbed by a rat, which ran across his foot, then scampered away into a dark corner of the cell, frightened at its own daring. After awhile The Thinking Machine, squinting steadily into the darkness of the corner where the rat had gone, was able to make out in the gloom many little beady eyes staring at him. He counted six pair, and there were perhaps others; he didn't see very well.

Then The Thinking Machine, from his seat on the bed, noticed for the first time the bottom of his cell door. There was an opening there of two inches between the steel bar and the floor. Still looking steadily at this opening, The Thinking Machine backed suddenly into the corner where he had seen the beady eyes. There was a great scampering of tiny feet, several squeaks of frightened rodents, and then silence.

None of the rats had gone out the door, yet there were none in the cell. Therefore there must be another way out of the cell, however small. The Thinking Machine, on hands and knees, started a search for this spot, feeling in the darkness with his long, slender fingers.

At last his search was rewarded. He came upon a small opening in the floor, level with the cement. It was perfectly round and somewhat larger than a silver dollar. This was the way the rats had gone. He put his fingers deep into the opening; it seemed to be a disused drainage pipe and was dry and dusty.

Having satisfied himself on this point, he sat on the bed again for an hour, then made another inspection of his surroundings through the small cell window. One of the outside guards stood directly opposite, beside the wall, and happened to be looking at the window of Cell 13 when the head of The Thinking Machine appeared. But the scientist didn't notice the guard.

Noon came and the jailer appeared with the prison dinner of repulsively plain food. At home The Thinking Machine merely ate to live; here he took what was offered without comment. Occasionally he spoke to the jailer who stood outside the door watching him.

"Any improvements made here in the last few years?" he asked.

"Nothing particularly," replied the jailer. "New wall was built four years ago."

"Anything done to the prison proper?"

"Painted the woodwork outside, and I believe about seven years ago a new system of plumbing was put in."

"Ah!" said the prisoner. "How far is the river over there?"

"About three hundred feet. The boys have a baseball ground between the wall and the river."

The Thinking Machine had nothing further to say just then, but when the jailer was ready to go he asked for some water.

"I get very thirsty here," he explained. "Would it be possible for you to leave a little water in a bowl for me?"

"I'll ask the warden," replied the jailer, and he went away. Half an hour later he returned with water in a small earthen bowl.

"The warden says you may keep this bowl," he informed the prisoner. "But you must show it to me when I ask for it. If it is broken, it will be the last."

"Thank you," said The Thinking Machine. "I shan't break it."

The jailer went on about his duties. For just the fraction of a second it seemed that The Thinking Machine wanted to ask a

question, but he didn't.

Two hours later this same jailer, in passing the door of Cell No. 13, heard a noise inside and stopped. The Thinking Machine was down on his hands and knees in a corner of the cell, and from that same corner came several frightened squeaks. The jailer looked on interestedly.

"Ah, I've got you," he heard the prisoner say.

"Got what?" he asked, sharply.

"One of these rats," was the reply. "See?" And between the scientist's long fingers the jailer saw a small gray rat struggling. The prisoner brought it over to the light and looked at it closely. "It's a water rat," he said.

"Ain't you got anything better to do than to catch rats?" asked the jailer.

"It's disgraceful that they should be here at all," was the irritated reply. "Take this one away and kill it. There are dozens more where it came from."

The jailer took the wriggling, squirming rodent and flung it down on the floor violently. It gave one squeak and lay still. Later he reported the incident to the warden, who only smiled.

Still later that afternoon the outside armed guard on Cell 13 side of the prison looked up again at the window and saw the prisoner looking out. He saw a hand raised to the barred window and then something white fluttered to the ground, directly under the window of Cell 13. It was a little roll of linen, evidently of white shirting material, and tied around it was a five-dollar bill. The guard looked up at the window again, but the face had disappeared.

With a grim smile he took the little linen roll and the five-dollar bill to the warden's office. There together they deciphered something which was written on it with a queer sort of ink, frequently blurred. On the outside was this:

"Finder of this please deliver to Dr. Charles Ransome."

"Ah," said the warden, with a chuckle. "Plan of escape number one has gone wrong." Then, as an afterthought: "But

why did he address it to Dr. Ransome?"

"And where did he get the pen and ink to write with?" asked the guard.

The warden looked at the guard and the guard looked at the warden. There was no apparent solution of that mystery. The warden studied the writing carefully, then shook his head.

"Well, let's see what he was going to say to Dr. Ransome," he said at length, still puzzled, and he unrolled the inner piece of linen.

"Well, if that— what— what do you think of that?" he asked, dazed.

The guard took the bit of linen and read this:

"Epa cseot d'net niy awe htto n'si sih. "T."

THE warden spent an hour wondering what sort of a cipher it was, and half an hour wondering why his prisoner should attempt to communicate with Dr. Ransome, who was the cause of him being there. After this the warden devoted some thought to the question of where the prisoner got writing materials., and what sort of writing materials he had. With the idea of illuminating this point, he examined the linen again. It was a torn part of a white shirt and had ragged edges.

Now it was possible to account for the linen, but what the prisoner had used to write with was another matter. The warden knew it would have been impossible for him to have either pen or pencil, and, besides, neither pen nor pencil had been used in this writing. What, then? The warden decided to personally investigate. The Thinking Machine was his prisoner; he had orders to hold his prisoners; if this one sought to escape by sending cipher messages to persons outside, he would stop it, as he would have stopped it in the case of any other prisoner.

The warden went back to Cell 13 and found The Thinking Machine on his hands and knees on the floor, engaged in nothing more alarming than catching rats. The prisoner heard the warden's step and turned to him quickly.

"It's disgraceful," he snapped, "these rats. There are scores of them."

"Other men have been able to stand them," said the warden. "Here is another shirt for you— let me have the one you have on."

"Why?" demanded The Thinking Machine, quickly. His tone was hardly natural, his manner suggested actual perturbation.

"You have attempted to communicate with Dr. Ransome," said the warden severely. "As my prisoner, it is my duty to put a stop to it."

The Thinking Machine was silent for a moment.

"All right," he said, finally. "Do your duty."

The warden smiled grimly. The prisoner arose from the floor and removed the white shirt, putting on instead a striped convict shirt the warden had brought. The warden took the white shirt eagerly, and then there compared the pieces of linen on which was written the cipher with certain torn places in the shirt. The Thinking Machine looked on curiously.

"The guard brought you those, then?" he asked.

"He certainly did," replied the warden triumphantly. "And that ends your first attempt to escape."

The Thinking Machine watched the warden as he, by comparison, established to his own satisfaction that only two pieces of linen had been torn from the white shirt.

"What did you write this with?" demanded the warden.

"I should think it a part of your duty to find out," said The Thinking Machine, irritably.

The warden started to say some harsh things, then restrained himself and made a minute search of the cell and of the prisoner instead. He found absolutely nothing; not even a match or toothpick which might have been used for a pen. The same mystery surrounded the fluid with which the cipher had been written. Although the warden left Cell 13 visibly annoyed, he took the torn shirt in triumph.

"Well, writing notes on a shirt won't get him out, that's

certain," he told himself with some complacency. He put the linen scraps into his desk to await developments. "If that man escapes from that cell I'll— hang it— I'll resign."

On the third day of his incarceration The Thinking Machine openly attempted to bribe his way out. The jailer had brought his dinner and was leaning against the barred door, waiting, when The Thinking Machine began the conversation.

"The drainage pipes of the prison lead to the river, don't they?" he asked .

"Yes," said the jailer.

"I suppose they are very small?"

"Too small to crawl through, if that's what you're thinking about," was the grinning response.

There was silence until The Thinking Machine finished his meal. Then:

"You know I'm not a criminal, don't you?"

"Yes."

"And that I've a perfect right to be freed if I demand it?"

"Yes."

"Well, I came here believing that I could make my escape," said the prisoner, and his squint eyes studied the face of the jailer.

"Would you consider a financial reward for aiding me to escape?"

The jailer, who happened to be an honest man, looked at the slender, weak figure of the prisoner, at the large head with its mass of yellow hair, and was almost sorry.

"I guess prisons like these were not built for the likes of you to get out of," he said, at last.

"But would you consider a proposition to help me get out?" the prisoner insisted, almost beseechingly.

"No," said the jailer, shortly.

"Five hundred dollars," urged The Thinking Machine. "I am not a criminal."

"No," said the jailer.

"A thousand?"

"No," again said the jailer, and he started away hurriedly to escape further temptation. Then he turned back. "If you should give me ten thousand dollars I couldn't get you out. You'd have to pass through seven doors, and I only have the keys to two."

Then he told the warden all about it.

"Plan number two fails," said the warden, smiling grimly. "First a cipher, then bribery."

When the jailer was on his way to Cell 13 at six o'clock, again bearing food to The Thinking Machine, he paused, startled by the unmistakable scrape, scrape of steel against steel. It stopped at the sound of his steps, then craftily the jailer, who was beyond the prisoner's range of vision, resumed his tramping, the sound being apparently that of a man going away from Cell 13. As a matter of fact he was in the same spot.

After a moment there came again the steady scrape, scrape, and the jailer crept cautiously on tiptoes to the door and peered between the bars. The Thinking Machine was standing on the iron bed working at the bars of the little window. He was using a file, judging from the backward and forward swing of his arms.

Cautiously the jailer crept back to the office, summoned the warden in person, and they returned to Cell 13 on tiptoes. The steady scrape was still audible. The warden listened to satisfy himself and then suddenly appeared at the door.

"Well?" he demanded, and there was a smile on his face.

The Thinking Machine glanced back from his perch on the bed and leaped suddenly to the floor, making frantic efforts to hide something. The warden went in, with hand extended.

"Give it up," he said.

"No," said the prisoner, sharply.

"Come, give it up," urged the warden. "I don't want to have to search you again."

"No," repeated the prisoner.

"What was it, a file?" asked the warden.

The Thinking Machine was silent and stood squinting at the

warden with something very nearly approaching disappointment on his face— nearly, but not quite. The warden was almost sympathetic.

"Plan number three fails, eh?" he asked, goodnaturedly.
"Too bad, isn't it?"

The prisoner didn't say.

"Search him," instructed the warden.

The jailer searched the prisoner carefully. At last, artfully concealed in the waist band of the trousers, he found a piece of steel about two inches long, with one side curved like a half moon.

"Ah," said the warden, as he received it from the jailer.
"From your shoe heel," and he smiled pleasantly.

The jailer continued his search and on the other side of the trousers waist band found another piece of steel identical with the first. The edges showed where they had been worn against the bars of the window.

"You couldn't saw a way through those bars with these," said the warden.

"I could have," said The Thinking Machine firmly.

"In six months, perhaps," said the warden, goodnaturedly.

The warden shook his head slowly as he gazed into the slightly flushed face of his prisoner.

"Ready to give it up?" he asked.

"I haven't started yet," was the prompt reply.

Then came another exhaustive search of the cell. Carefully the two men went over it, finally turning out the bed and searching that. Nothing. The warden in person climbed upon the bed and examined the bars of the window where the prisoner had been sawing. When he looked he was amused.

"Just made it a little bright by hard rubbing," he said to the prisoner, who stood looking on with a somewhat crestfallen air. The warden grasped the iron bars in his strong hands and tried to shake them. They were immovable, set firmly in the solid granite. He examined each in turn and found them all

satisfactory. Finally he climbed down from the bed.

"Give it up, professor," he advised.

The Thinking Machine shook his head and the warden and jailer passed on again. As they disappeared down the corridor The Thinking Machine sat on the edge of the bed with his head in his hands.

"He's crazy to try to get out of that cell," commented the jailer.

"Of course he can't get out," said the warden. "But he's clever. I would like to know what he wrote that cipher with."

It was four o'clock next morning when an awful, heart-racking shriek of terror resounded through the great prison. It came from a cell somewhere about the center, and its tone told a tale of horror, agony, terrible fear. The warden heard and with three of his men rushed into the long corridor leading to Cell 13.

AS they ran there came again that awful cry. It died away in a sort of wail. The white faces of prisoners appeared at cell doors upstairs and down, staring out wonderingly, frightened.

"It's that fool in Cell 13," grumbled the warden.

He stopped and stared in as one of the jailers flashed a lantern. "That fool in Cell 13" lay comfortably on his cot, flat on his back with his mouth open, snoring. Even as they looked there came again the piercing cry, from somewhere above. The warden's face blanched a little as he started up the stairs. There on the top floor he found a man in Cell 43, directly above Cell 13, but two floors higher, cowering in a corner of his cell.

"What's the matter?" demanded the warden.

"Thank God you've come," exclaimed the prisoner, and he cast himself against the bars of his cell.

"What is it?" demanded the warden again.

He threw open the door and went in. The prisoner dropped on his knees and clasped the warden about the body. His face was white with terror, his eyes were widely distended, and he was shuddering. His hands, icy cold, clutched at the warden's.

"Take me out of this cell, please take me out," he pleaded.

"What's the matter with you, anyhow?" insisted the warden, impatiently.

"I heard something— something," said the prisoner, and his eyes roved nervously around the cell.

"What did you hear?"

"I— I can't tell you," stammered the prisoner. Then, in a sudden burst of terror: "Take me out of this cell— put me anywhere— but take me out of here."

The warden and the three jailers exchanged glances.

"Who is this fellow? What's he accused of?" asked the warden.

"Joseph Ballard," said one of the jailers. "He's accused of throwing acid in a woman's face. She died from it."

"But they can't prove it," gasped the prisoner. "They can't prove it. Please put me in some other cell."

He was still clinging to the warden, and that official threw his arms off roughly. Then for a time he stood looking at the cowering wretch, who seemed possessed of all the wild, unreasoning terror of a child.

"Look here, Ballard," said the warden, finally, "if you heard anything, I want to know what it was. Now tell me."

"I can't, I can't," was the reply. He was sobbing.

"Where did it come from?"

"I don't know. Everywhere— nowhere. I just heard it."

"What was it— a voice?"

"Please don't make me answer," pleaded the prisoner.

"You must answer," said the warden, sharply.

"It was a voice— but— but it wasn't human," was the sobbing reply.

"Voice, but not human?" repeated the warden, puzzled.

"It sounded muffled and— and far away— and ghostly," explained the man.

"Did it come from inside or outside the prison?"

"It didn't seem to come from anywhere— it was just here,

here, everywhere. I heard it. I heard it."

For an hour the warden tried to get the story, but Ballard had become suddenly obstinate and would say nothing— only pleaded to be placed in another cell, or to have one of the jailers remain near him until daylight. These requests were gruffly refused.

"And see here," said the warden, in conclusion, "if there's any more of this screaming, I'll put you in the padded cell."

Then the warden went his way, a sadly puzzled man. Ballard sat at his cell door until daylight, his face, drawn and white with terror, pressed against the bars, and looked out into the prison with wide, staring eyes.

That day, the fourth since the incarceration of The Thinking Machine, was enlivened considerably by the volunteer prisoner, who spent most of his time at the little window of his cell. He began proceedings by throwing another piece of linen down to the guard, who picked it up dutifully and took it to the warden. On it was written:

"Only three days more."

The warden was in no way surprised at what he read; he understood that The Thinking Machine meant only three days more of his imprisonment, and he regarded the note as a boast. But how was the thing written? Where had The Thinking Machine found this new piece of linen? Where? How? He carefully examined the linen. It was white, of fine texture, shirting material. He took the shirt which he had taken and carefully fitted the two original pieces of the linen to the torn places. This third piece was entirely superfluous; it didn't fit anywhere, and yet it was unmistakably the same goods.

"And where— where does he get anything to write with?" demanded the warden of the world at large.

Still later on the fourth day The Thinking Machine, through the window of his cell, spoke to the armed guard outside.

"What day of the month is it?" he asked.

"The fifteenth," was the answer.

The Thinking Machine made a mental astronomical calculation and satisfied himself that the moon would not rise until after nine o'clock that night. Then he asked another question: "Who attends to those arc lights?"

"Man from the company."

"You have no electricians in the building?"

"No."

"I should think you could save money if you had your own man." "None of my business," replied the guard.

The guard noticed The Thinking Machine at the cell window frequently during that day, but always the face seemed listless and there was a certain wistfulness in the squint eyes behind the glasses. After a while he accepted the presence of the leonine head as a matter of course. He had seen other prisoners do the same thing; it was the longing for the outside world.

That afternoon, just before the day guard was relieved, the head appeared at the window again, and The Thinking Machine's hand held something out between the bars. It fluttered to the ground and the guard picked it up. It was a five-dollar bill.

"That's for you," called the prisoner.

As usual, the guard, took it to the warden. That gentleman looked at it suspiciously; he looked at everything that came from Cell 13 with suspicion.

"He said it was for me," explained the guard.

"It's a sort of a tip, I suppose," said the warden. "I see no particular reason why you shouldn't accept—"

Suddenly he stopped. He had remembered that The Thinking Machine had gone into Cell 13 with one five-dollar bill and two ten-dollar bills; twenty-five dollars in all. Now a five-dollar bill had been tied around the first pieces of linen that came from the cell. The warden still had it, and to convince himself he took it out and looked at it. It was five dollars; yet here was another five

dollars, and The Thinking Machine had only had ten-dollar bills.

"Perhaps somebody changed one of the bills for him," he thought at last, with a sigh of relief.

But then and there he made up his mind. He would search Cell 13 as a cell was never before searched in this world. When a man could write at will, and change money, and do other wholly inexplicable things, there was something radically wrong with his prison. He planned to enter the cell at night— three o'clock would be an excellent time. The Thinking Machine must do all the weird things he did sometime. Night seemed the most reasonable.

Thus it happened that the warden stealthily descended upon Cell 13 that night at three -o'clock. He paused at the door and listened. There was no sound save the steady, regular breathing of the prisoner. The keys unfastened the double locks with scarcely a clank, and the warden entered, locking the door behind him. Suddenly he flashed his dark-lantern in the face of the recumbent figure.

If the warden had planned to startle The Thinking Machine he was mistaken, for that individual merely opened his eyes quietly, reached for his glasses and inquired, in a most matter-of-fact tone:

"Who is it?"

It would be useless to describe the search that the warden made. It was minute. Not one inch of the cell or the bed was overlooked. He found the round hole in the floor, and with a flash of inspiration thrust his thick fingers into it. After a moment of fumbling there he drew up something and looked at it in the light of his lantern.

"Ugh!" he exclaimed.

The thing he had taken out was a rat— a dead rat. His inspiration fled as a mist before the sun. But he continued the search. The Thinking Machine, without a word, arose and kicked the rat out of the cell into the corridor.

The warden climbed on the bed and tried the steel bars in

the tiny window. They were perfectly rigid; every bar of the door was the same.

Then the warden searched the prisoner's clothing, beginning at the shoes. Nothing hidden in them! Then the trousers waist band. Still nothing! Then the pockets of the trousers. From one side he drew out some paper money and examined it.

"Five one-dollar bills," he gasped.

"That's right," said the prisoner.

"But the— you had two tens and a five— what the— how do you do it?"

"That's my business," said the Thinking Machine.

"Did any of my men change this money for you— on your word of honor?"

The Thinking Machine paused just a fraction of a second.

"No," he said.

"Well, do you make it?" asked the warden. He was prepared to believe anything.

"That's my business," again said the prisoner.

The warden glared at the eminent scientist fiercely. He felt— he knew— that this man was making a fool of him, yet he didn't know how. If he were a real prisoner he would get the truth— but, then, perhaps, those inexplicable things which had happened would not have been brought before him so sharply. Neither of the men spoke for a long time, then suddenly the warden turned fiercely and left the cell, slamming the door behind him. He didn't dare to speak, then.

He glanced at the clock. It was ten minutes to four. He had hardly settled himself in bed when again came that heart-breaking shriek through the prison. With a few muttered words, which, while not elegant, were highly expressive, he relighted his lantern and rushed through the prison again to the cell on the upper floor.

Again Ballard was crushing himself against the steel door, shrieking, shrieking at the top of his voice. He stopped only when the warden flashed his lamp in the cell.

"Take me out, take me out," he screamed. "I did it, I did it, I killed her. Take it away."

"Take what away?" asked the warden.

"I threw the acid in her face— I did it— I confess. Take me out of here."

Ballard's condition was pitiable; it was only an act of mercy to let him out into the corridor. There he crouched in a corner, like an animal at bay, and clasped his hands to his ears. It took half an hour to calm him sufficiently for him to speak. Then he told incoherently what had happened. On the night before at four o'clock he had heard a voice— a sepulchral voice, muffled and wailing in tone.

"What did it say?" asked the warden, curiously.

"Acid— acid— acid!" gasped the prisoner. "It accused me. Acid! I threw the acid, and the woman died. Oh!" It was a long, shuddering wail of terror.

"Acid?" echoed the warden, puzzled. The case was beyond him.

"Acid. That's all I heard— that one word, repeated several times. There were other things, too, but I didn't hear them."

"That was last night, eh?" asked the warden. "What happened to-night— what frightened you just now?"

"It was the same thing," gasped the prisoner. "Acid— acid— acid!" He covered his face with his hands and sat shivering. "It was acid I used on her, but I didn't mean to kill her. I just heard the words. It was something accusing me— accusing me." He mumbled, and was silent.

"Did you hear anything else?"

"Yes— but I couldn't understand— only a little bit— just a word or two."

"Well, what was it?"

"I heard 'acid' three times, then I heard a long, moaning sound, then— then— I heard 'No. 8 hat.' I heard that twice."

"No. 8 hat," repeated the warden. "What the devil— No. 8 hat? Accusing voices of conscience have never talked about No.

8 hats, so far as I ever heard."

"He's insane," said one of the jailers, with an air of finality.

"I believe you," said the warden. "He must be. He probably heard something and got frightened. He's trembling now. No. 8 hat! What the—"

WHEN the fifth day of The Thinking Machine's imprisonment rolled around the warden was wearing a hunted look. He was anxious for the end of the thing. He could not help but feel that his distinguished prisoner had been amusing himself. And if this were so, The Thinking Machine had lost none of his sense of humor. For on this fifth day he flung down another linen note to the outside guard, bearing the words: "Only two days more." Also he flung down half a dollar.

Now the warden knew— he knew— that the man in Cell 13 didn't have any half dollars— he couldn't have any half dollars, no more than he could have pen and ink and linen, and yet he did have them. It was a condition, not a theory; that is one reason why the warden was wearing a hunted look.

That ghastly, uncanny thing, too, about "Acid" and "No. 8 hat" clung to him tenaciously. They didn't mean anything, of course, merely the ravings of an insane murderer who had been driven by fear to confess his crime, still there were so many things that "didn't mean anything" happening in the prison now since The Thinking Machine was there.

On the sixth day the warden received a postal stating that Dr. Ransome and Mr. Fielding would be at Chisholm Prison on the following evening, Thursday, and in the event Professor Van Dusen had not yet escaped— and they presumed he had not because they had not heard from him— they would meet him there.

"In the event he had not yet escaped!" The warden smiled grimly. Escaped!

The Thinking Machine enlivened this day for the warden with three notes. They were on the usual linen and bore generally on

the appointment at half-past eight o'clock Thursday night, which appointment the scientist had made at the time of his imprisonment.

On the afternoon of the seventh day the warden passed Cell 13 and glanced in. The Thinking Machine was lying on the iron bed, apparently sleeping lightly. The cell appeared precisely as it always did to a casual glance. The warden would swear that no man was going to leave it between that hour— it was then four o'clock— and half-past eight o'clock that evening.

On his way back past the cell the warden heard the steady breathing again, and coming close to the door looked in. He wouldn't have done so if The Thinking Machine had been looking, but now— well, it was different.

A ray of light came through the high window and fell on the face of the sleeping man. It occurred to the warden for the first time that his prisoner appeared haggard and weary. Just then The Thinking Machine stirred slightly and the warden hurried on up the corridor guiltily. That evening after six o'clock he saw the jailer.

"Everything all right in Cell 13?" he asked.

"Yes, sir," replied the jailer. "He didn't eat much, though."

It was with a feeling of having done his duty that the warden received Dr. Ransome and Mr. Fielding shortly after seven o'clock. He intended to show them the linen notes and lay before them the full story of his woes, which was a long one. But before this came to pass, the guard from the river side of the prison yard entered the office.

"The arc light in my side of the yard won't light," he informed the warden.

"Confound it, that man's a hoodoo," thundered the official.

"Everything has happened since he's been here."

The guard went back to his post in the darkness, and the warden 'phoned to the electric light company.

"This is Chisholm Prison," he said through the 'phone. "Send three or four men down here quick, to fix an arc light."

The reply was evidently satisfactory, for the warden hung up the receiver and passed out into the yard. While Dr. Ransome and Mr. Fielding sat waiting the guard at the outer gate came in with a special delivery letter. Dr. Ransome happened to notice the address, and, when the guard went out, looked at the letter more closely.

"By George!" he exclaimed.

"What is it?" asked Mr. Fielding.

Silently the doctor offered the letter. Mr. Fielding examined it closely.

"Coincidence," he said. "It must be."

It was nearly eight o'clock when the warden returned to his office. The electricians had arrived in a wagon, and were now at work. The warden pressed the buzz-button communicating with the man at the outer gate in the wall.

"How many electricians came in?" he asked, over the short 'phone. "Four? Three workmen in jumpers and overalls and the manager? Frock coat and silk hat? All right. Be certain that only four go out. That's all."

He turned to Dr. Ransome and Mr. Fielding. "We have to be careful here— particularly," and there was broad sarcasm in his tone, "since we have scientists locked up."

The warden picked up the special delivery letter carelessly, and then began to open it.

"When I read this I want to tell you gentlemen something about how— Great Caesar!" he ended, suddenly, as he glanced at the letter. He sat with mouth open, motionless, from astonishment.

"What is it?" asked Mr. Fielding.

"A special delivery from Cell 13," gasped the warden. "An invitation to supper."

"What?" and the two others arose, unanimously.

The warden sat dazed, staring at the letter for a moment, then called sharply to a guard outside in the corridor.

"Run down to Cell 13 and see if that man's in there."

The guard went as directed, while Dr. Ransome and Mr. Fielding examined the letter.

"It's Van Dusen's handwriting; there's no question of that," said Dr. Ransome. "I've seen too much of it."

Just then the buzz on the telephone from the outer gate sounded, and the warden, in a semi-trance, picked up the receiver.

"Hello! Two reporters, eh? Let 'em come in." He turned suddenly to the doctor and Mr. Fielding. "Why, the man can't be out. He must be in his cell."

Just at that moment the guard returned.

"He's still in his cell, sir," he reported. "I saw him. He's lying down."

"There, I told you so," said the warden, and he breathed freely again. "But how did he mail that letter?"

There was a rap on the steel door which led from the jail yard into the warden's office.

"It's the reporters," said the warden. "Let them in," he instructed the guard; then to the two other gentlemen: "Don't say anything about this before them, because I'd never hear the last of it."

The door opened, and the two men from the front gate entered.

"Good-evening, gentlemen," said one. That was Hutchinson Hatch; the warden knew him well.

"Well?" demanded the other, irritably. "I'm here."

That was The Thinking Machine.

He squinted belligerently at the warden, who sat with mouth agape. For the moment that official had nothing to say. Dr. Ransome and Mr. Fielding were amazed, but they didn't know what the warden knew. They were only amazed; he was paralyzed. Hutchinson Hatch, the reporter, took in the scene with greedy eyes.

"How— how— how did you do it?" gasped the warden, finally.

"Come back to the cell," said The Thinking Machine, in the irritated voice which his scientific associates knew so well.

The warden, still in a condition bordering on trance, led the way.

"Flash your light in there," directed The Thinking Machine.

The warden did so. There was nothing unusual in the appearance of the cell, and there— there on the bed lay the figure of The Thinking Machine. Certainly! There was the yellow hair! Again the warden looked at the man beside him and wondered at the strangeness of his own dreams.

With trembling hands he unlocked the cell door and The Thinking Machine passed inside.

"See here," he said.

He kicked at the steel bars in the bottom of the cell door and three of them were pushed out of place. A fourth broke off and rolled away in the corridor.

"And here, too," directed the erstwhile prisoner as he stood on the bed to reach the small window. He swept his hand across the opening and every bar came out.

"What's this in the bed?" demanded the warden, who was slowly recovering.

"A wig," was the reply. "Turn down the cover."

The warden did so. Beneath it lay a large coil of strong rope, thirty feet or more, a dagger, three files, ten feet of electric wire, a thin, powerful pair of steel pliers, a small tack hammer with its handle, and— and a Derringer pistol.

"How did you do it?" demanded the warden.

"You gentlemen have an engagement to supper with me at halfpast nine o'clock," said The Thinking Machine. "Come on, or we shall be late."

"But how did you do it?" insisted the warden.

"Don't ever think you can hold any man who can use his brain," said The Thinking Machine. "Come on; we shall be late."

IT was an impatient supper party in the rooms of Professor

Van Dusen and a somewhat silent one. The guests were Dr. Ransome, Albert Fielding, the warden, and Hutchinson Hatch, reporter. The meal was served to the minute, in accordance with Professor Van Dusen's instructions of one week before; Dr. Ransome found the artichokes delicious. At last the supper was finished and The Thinking Machine turned full on Dr. Ransome and squinted at him fiercely.

"Do you believe it now?" he demanded.

"I do," replied Dr. Ransome.

"Do you admit that it was a fair test?"

"I do."

With the others, particularly the warden, he was waiting anxiously for the explanation.

"Suppose you tell us how—" began Mr. Fielding.

"Yes, tell us how," said the warden.

The Thinking Machine readjusted his glasses, took a couple of preparatory squints at his audience, and began the story. He told it from the beginning logically; and no man ever talked to more interested listeners.

"My agreement was," he began, "to go into a cell, carrying nothing except what was necessary to wear, and to leave that cell within a week. I had never seen Chisholm Prison. When I went into the cell I asked for tooth powder, two ten and one five-dollar bills, and also to have my shoes blacked. Even if these requests had been refused it would not have mattered seriously. But you agreed to them."

"I knew there would be nothing in the cell which you thought I might use to advantage. So when the warden locked the door on me I was apparently helpless, unless I could turn three seemingly innocent things to use. They were things which would have been permitted any prisoner under sentence of death, were they not, warden?"

"Tooth powder and polished shoes, yes, but not money," replied the warden.

"Anything is dangerous in the hands of a man who knows

how to use it," went on The Thinking Machine. "I did nothing that first night but sleep and chase rats." He glared at the warden. "When the matter was broached I knew I could do nothing that night, so suggested next day. You gentlemen thought I wanted time to arrange an escape with outside assistance, but this was not true. I knew I could communicate with whom I pleased, when I pleased."

The warden stared at him a moment, then went on smoking solemnly.

"I was aroused next morning at six o'clock by the jailer with my breakfast," continued the scientist. "He told me dinner was at twelve and supper at six. Between these times, I gathered, I would be pretty much to myself. So immediately after breakfast I examined my outside surroundings from my cell window. One look told me it would be useless to try to scale the wall, even should I decide to leave my cell by the window, for my purpose was to leave not only the cell, but the prison. Of course, I could have gone over the wall, but it would have taken me longer to lay my plans that way. Therefore, for the moment, I dismissed all idea of that.

"From this first observation I knew the river was on that side of the prison, and that there was also a playground there. Subsequently these surmises were verified by a keeper. I knew then one important thing— that anyone might approach the prison wall from that side if necessary without attracting any particular attention. That was well to remember. I remembered it.

"But the outside thing which most attracted my attention was the feed wire to the arc light which ran within a few feet— probably three or four— of my cell window. I knew that would be valuable in the event I found it necessary to cut off that arc light."

"Oh, you shut it off to-night, then?" asked the warden.

"Having learned all I could from that window," resumed The Thinking Machine, without heeding the interruption, "I

considered the idea of escaping through the prison proper. I recalled just how I had come into the cell, which I knew would be the only way. Seven doors lay between me and the outside. So, also for the time being I gave up the idea of escaping that way. And I couldn't go through the solid granite walls of the cell."

The Thinking Machine paused for a moment and Dr. Ransome lighted a new cigar. For several minutes there was silence, then the scientific jail-breaker went on:

"While I was thinking about these things a rat ran across my foot. It suggested a new line of thought. There were at least half a dozen rats in the cell— I could see their beady eyes. Yet I had noticed none come under the cell door. I frightened them purposely and watched the cell door to see if they went out that way. They did not, but they were gone. Obviously they went another way. Another way meant another opening.

"I searched for this opening and found it. It was an old drain pipe, long unused and partly choked with dirt and dust. But this was the way the rats had come. They came from somewhere. Where? Drain pipes usually lead outside prison grounds. This one probably led to the river, or near it. The rats must therefore come from that direction. If they came a part of the way, I reasoned that they came all the way, because it was extremely unlikely that a solid iron or lead pipe would have any hole in it except at the exit.

"When the jailer came with my luncheon he told me two important things, although he didn't know it. One was that a new system of plumbing had been put in the prison seven years before; another that the river was only three hundred feet away. Then I knew positively that the pipe was a part of an old system; I knew, too, that it slanted generally toward the river. But did the pipe end in the water or on land?

"This was the next question to be decided. I decided it by catching several of the rats in the cell. My jailer was surprised to see me engaged in this work. I examined at least a dozen of

them. They were perfectly dry; they had come through the pipe, and, most important of all, they were not house rats, but field rats. The other end of the pipe was on land, then, outside the prison walls. So far, so good.

"Then, I knew that if I worked freely from this point I must attract the warden's attention in another direction. You see, by telling the warden that I had come there to escape you made the test more severe, because I had to trick him by false scents."

The warden looked up with a sad expression in his eyes.

"The first thing was to make him think I was trying to communicate with you, Dr. Ransome. So I wrote a note on a piece of linen I tore from my shirt, addressed it to Dr. Ransome, tied a five-dollar bill around it and threw it out of the window. I knew the guard would take it to the warden, but I rather hoped the warden would send it as addressed. Have you that first linen note, warden?"

The warden produced the cipher.

"What the deuce does it mean, anyhow?" he asked.

"Read it backward, beginning with the 'T' signature and disregard the division into words," instructed The Thinking Machine.

The warden did so.

"T- h- i- s, this," he spelled, studied it a moment, then read it off, grinning:

"This is not the way I intend to escape."

"Well, now what do you think o' that?" he demanded, still grinning.

"I knew that would attract your attention, just as it did," said The Thinking Machine, "and if you really found out what it was, it would be a sort of gentle rebuke."

"What did you write it with?" asked Dr. Ransome, after he had examined the linen and passed it to Mr. Fielding.

"This," said the erstwhile prisoner, and he extended his foot. On it was the shoe he had worn in prison, though the polish was gone—scraped off clean. "The shoe blacking, moistened with

water, was my ink; the metal tip of the shoe lace made a fairly good pen."

The warden looked up and suddenly burst into a laugh, half of relief, half of amusement.

"You're a wonder," he said, admiringly. "Go on."

"That precipitated a search of my cell by the warden, as I had intended," continued The Thinking Machine. "I was anxious to get the warden into the habit of searching my cell, so that finally, constantly finding nothing, he would get disgusted and quit. This at last happened, practically."

The warden blushed.

"He then took my white shirt away and gave me a prison shirt. He was satisfied that those two pieces of the shirt were all that was missing. But while he was searching my cell I had another piece of that same shirt, about nine inches square, rolled into a small ball in my mouth."

"Nine inches off that shirt?" demanded the warden. "Where did it come from?"

"The bosoms of all stiff white shirts are of triple thickness," was the explanation. "I tore out the inside thickness, leaving the bosom only two thicknesses. I knew you wouldn't see it. So much for that."

There was a little pause, and the warden looked from one to another of the men with a sheepish grin.

"Having disposed of the warden for the time being by giving him something else to think about, I took my first serious step toward freedom," said Professor Van Dusen. "I knew, within reason, that the pipe led somewhere to the playground outside; I knew a great many boys played there; I knew that rats came into my cell from out there. Could I communicate with some one outside with these things at hand?"

"First was necessary, I saw, a long and fairly reliable thread, so— but here," he pulled up his trousers legs and showed that the tops of both stockings, of fine, strong lisle, were gone. "I unraveled those— after I got them started it wasn't difficult—

and I had easily a quarter of a mile of thread that I could depend on.

"Then on half of my remaining linen I wrote, laboriously enough I assure you, a letter explaining my situation to this gentleman here," and he indicated Hutchinson Hatch. "I knew he would assist me for the value of the newspaper story. I tied firmly to this linen letter a ten-dollar bill— there is no surer way of attracting the eye of anyone— and wrote on the linen: 'Finder of this deliver to Hutchinson Hatch, Daily American, who will give another ten dollars for the information.'

"The next thing was to get this note outside on that playground where a boy might find it. There were two ways, but I chose the best. I took one of the rats— I became adept in catching them— tied the linen and money firmly to one leg, fastened my lisle thread to another, and turned him loose in the drain pipe. I reasoned that the natural fright of the rodent would make him run until he was outside the pipe and then out on earth he would probably stop to gnaw off the linen and money.

"From the moment the rat disappeared into that dusty pipe I became anxious. I was taking so many chances. The rat might gnaw the string, of which I held one end; other rats might gnaw it; the rat might run out of the pipe and leave the linen and money where they would never be found; a thousand other things might have happened. So began some nervous hours, but the fact that the rat ran on until only a few feet of the string remained in my cell made me think he was outside the pipe. I had carefully instructed Mr. Hatch what to do in case the note reached him. The question was: Would it reach him?

"This done, I could only wait and make other plans in case this one failed. I openly attempted to bribe my jailer, and learned from him that he held the keys to only two of seven doors between me and freedom. Then I did something else to make the warden nervous. I took the steel supports out of the heels of my shoes and made a pretense of sawing the bars of my cell window. The warden raised a pretty row about that. He

developed, too, the habit of shaking the bars of my cell window to see if they were solid. They were— then."

Again the warden grinned. He had ceased being astonished.

"With this one plan I had done all I could and could only wait to see what happened," the scientist went on. "I couldn't know whether my note had been delivered or even found, or whether the rat had gnawed it up. And I didn't dare to draw back through the pipe that one slender thread which connected me with the outside.

"When I went to bed that night I didn't sleep, for fear there would come the slight signal twitch at the thread which was to tell me that Mr. Hatch had received the note. At half-past three o'clock, I judge, I felt this twitch, and no prisoner actually under sentence of death ever welcomed a thing more heartily."

The Thinking Machine stopped and turned to the reporter.

"You'd better explain just what you did," he said.

"The linen note was brought to me by a small boy who had been playing baseball," said Mr. Hatch. "I immediately saw a big story in it, so I gave the boy another ten dollars, and got several spools of silk, some twine, and a roll of light, pliable wire. The professor's note suggested that I have the finder of the note show me just where it was picked up, and told me to make my search from there, beginning at two o'clock in the morning. If I found the other end of the thread I was to twitch it gently three times, then a fourth.

"I began the search with a small bulb electric light. It was an hour and twenty minutes before I found the end of the drain pipe, half hidden in weeds. The pipe was very large there, say twelve inches across. Then I found the end of the lisle thread, twitched it as directed and immediately I got an answering twitch.

"Then I fastened the silk to this and Professor Van Dusen began to pull it into his cell. I nearly had heart disease for fear the string would break. To the end of the silk I fastened the twine, and when that had been pulled in, I tied on the wire. Then

that was drawn into the pipe and we had a substantial line, which rats couldn't gnaw, from the mouth of the drain into the cell."

The Thinking Machine raised his hand and Hatch stopped.

"All this was done in absolute silence," said the scientist.

"But when the wire reached my hand I could have shouted. Then we tried another experiment, which Mr. Hatch was prepared for. I tested the pipe as a speaking tube. Neither of us could hear very clearly, but I dared not speak loud for fear of attracting attention in the prison. At last I made him understand what I wanted immediately. He seemed to have great difficulty in understanding when I asked for nitric acid, and I repeated the word 'acid' several times.

"Then I heard a shriek from a cell above me. I knew instantly that some one had overheard, and when I heard you coming, Mr. Warden, I feigned sleep. If you had entered my cell at that moment that whole plan of escape would have ended there. But you passed on. That was the nearest I ever came to being caught.

"Having established this improvised trolley it is easy to see how I got things in the cell and made them disappear at will. I merely dropped them back into the pipe. You, Mr. Warden, could not have reached the connecting wire with your fingers; they are too large. My fingers, you see, are longer and more slender. In addition I guarded the top of that pipe with a rat—you remember how."

"I remember," said the warden, with a grimace.

"I thought that if any one were tempted to investigate that hole the rat would dampen his ardor. Mr. Hatch could not send me anything useful through the pipe until next night, although he did send me change for ten dollars as a test, so I proceeded with other parts of my plan. Then I evolved the method of escape, which I finally employed.

"In order to carry this out successfully it was necessary for the guard in the yard to get accustomed to seeing me at the cell

window. I arranged this by dropping linen notes to him, boastful in tone, to make the warden believe, if possible, one of his assistants was communicating with the outside for me. I would stand at my window for hours gazing out, so the guard could see, and occasionally I spoke to him. In that way I learned that the prison had no electricians of its own, but was dependent upon the lighting company if anything should go wrong.

"That cleared the way to freedom perfectly. Early in the evening of the last day of my imprisonment, when it was dark, I planned to cut the feed wire which was only a few feet from my window, reaching it with an acid-tipped wire I had. That would make that side of the prison perfectly dark while the electricians were searching for the break. That would also bring Mr. Hatch into the prison yard.

"There was only one more thing to do before I actually began the work of setting myself free. This was to arrange final details with Mr. Hatch through our speaking tube. I did this within half an hour after the warden left my cell on the fourth night of my imprisonment. Mr. Hatch again had serious difficulty in understanding me, and I repeated the word 'acid' to him several times, and later the words: 'Number eight hat' — that's my size— and these were the things which made a prisoner upstairs confess to murder, so one of the jailers told me next day. This prisoner heard our voices, confused of course, through the pipe, which also went to his cell. The cell directly over me was not occupied, hence no one else heard.

"Of course the actual work of cutting the steel bars out of the window and door was comparatively easy with nitric acid, which I got through the pipe in thin bottles, but it took time. Hour after hour on the fifth and sixth and seven days the guard below was looking at me as I worked on the bars of the window with the acid on a piece of wire. I used the tooth powder to prevent the acid spreading. I looked away abstractedly as I worked and each minute the acid cut deeper into the metal. I noticed that the jailers always tried the door by shaking the

upper part, never the lower bars, therefore I cut the lower bars, leaving them hanging in place by thin strips of metal. But that was a bit of dare-deviltry. I could not have gone that way so easily."

The Thinking Machine sat silent for several minutes.

"I think that makes everything clear," he went on. "Whatever points I have not explained were merely to confuse the warden and jailers. These things in my bed I brought in to please Mr. Hatch, who wanted to improve the story. Of course, the wig was necessary in my plan. The special delivery letter I wrote and directed in my cell with Mr. Hatch's fountain pen, then sent it out to him and he mailed it. That's all, I think."

"But your actually leaving the prison grounds and then coming in through the outer gate to my office?" asked the warden.

"Perfectly simple," said the scientist. "I cut the electric light wire with acid, as I said, when the current was off. Therefore when the current was turned on, the arc light didn't light. I knew it would take some time to find out what was the matter and make repairs. When the guard went to report to you the yard was dark. I crept out the window— it was a tight fit, too— replaced the bars by standing on a narrow ledge and remained in a shadow until the force of electricians arrived. Mr. Hatch was one of them.

"When I saw him I spoke and he handed me a cap, a jumper and overalls, which I put on within ten feet of you, Mr. Warden, while you were in the yard. Later Mr. Hatch called me, presumably as a workman, and together we went out the gate to get something out of the wagon. The gate guard let us pass out readily as two workmen who had just passed in. We changed our clothing and reappeared, asking to see you. We saw you. That's all."

There was silence for several minutes. Dr. Ransome was first to speak.

"Wonderful!" he exclaimed. "Perfectly amazing."

"How did Mr. Hatch happen to come with the electricians?" asked Mr. Fielding.

"His father is manager of the company," replied The Thinking Machine.

"But what if there had been no Mr. Hatch outside to help?"

"Every prisoner has one friend outside who would help him escape if he could."

"Suppose— just suppose— there had been no old plumbing system there?" asked the warden, curiously.

"There were two other ways out," said The Thinking Machine, enigmatically.

Ten minutes later the telephone bell rang. It was a request for the warden.

"Light all right, eh?" the warden asked, through the 'phone.

"Good. Wire cut beside Cell 13? Yes, I know. One electrician too many? What's that? Two came out?"

The warden turned to the others with a puzzled expression.

"He only let in four electricians, he has let out two and says there are three left."

"I was the odd one," said The Thinking Machine.

"Oh," said the warden. "I see." Then through the 'phone: "Let the fifth man go. He's all right."

6: The Ralston Bank Burglary

WITH EXPERT fingers Phillip Dunston, receiving teller, verified the last package of one- hundred- dollar bills he had made up— ten thousand dollars in all— and tossed it over on the pile beside him, while he checked off a memorandum. It was correct; there were eighteen packages of bills, containing \$107,231. Then he took the bundles, one by one, and on each placed his initials, "P. D." This was a system of checking in the Ralston National Bank.

It was care in such trivial details, perhaps, that had a great

deal to do with the fact that the Ralston National had advanced from a small beginning to the first rank of those banks which were financial powers. President Quinton Fraser had inaugurated the system under which the Ralston National had so prospered, and now, despite his seventy-four years, he was still its active head. For fifty years he had been in its employ; for thirty-five years of that time he had been its president.

Publicly the aged banker was credited with the possession of a vast fortune, this public estimate being based on large sums he had given to charity. But as a matter of fact the private fortune of the old man, who had no one to share it save his wife, was not large; it was merely a comfortable living sum for an aged couple of simple tastes.

Dunston gathered up the packages of money and took them into the cashier's private office, where he dumped them on the great flat-top desk at which that official, Randolph West, sat figuring. The cashier thrust the sheet of paper on which he had been working into his pocket and took the memorandum which Dunston offered.

"All right?" he asked.

"It tallies perfectly," Dunston replied.

"Thanks. You may go now."

It was an hour after closing time. Dunston was just pulling on his coat when he saw West come out of his private office with the money to put it away in the big steel safe which stood between depositors and thieves. The cashier paused a moment to allow the janitor, Harris, to sweep the space in front of the safe. It was the late afternoon scrubbing and sweeping.

"Hurry up," the cashier complained, impatiently.

Harris hurried, and West placed the money in the safe. There were eighteen packages.

"All right, sir?" Dunston inquired.

"Yes."

West was disposing of the last bundle when Miss Clarke— Louise Clarke— private secretary to President Fraser, came out

of his office with a long envelope in her hand. Dunston glanced at her and she smiled at him.

"Please, Mr. West," she said to the cashier, "Mr. Fraser told me before he went to put these papers in the safe. I had almost forgotten."

She glanced into the open safe and her pretty blue eyes opened wide. Mr. West took the envelope, stowed it away with the money without a word, the girl looking on interestedly, and then swung the heavy door closed. She turned away with a quick, reassuring smile at Dunston, and disappeared inside the private office.

West had shot the bolts of the safe into place and had taken hold of the combination dial to throw it on, when the street door opened and President Fraser entered hurriedly.

"Just a moment, West," he called. "Did Miss Clarke give you an envelope to go in there?"

"Yes. I just put it in."

"One moment," and the aged president came through a gate which Dunston held open and went to the safe. The cashier pulled the steel door open, unlocked the money compartment where the envelope had been placed, and the president took it out.

West turned and spoke to Dunston, leaving the president looking over the contents of the envelope. When the cashier turned back to the safe the president was just taking his hand away from his inside coat pocket.

"It's all right, West," he instructed. "Lock it up."

Again the heavy door closed, the bolts were shot and the combination dial turned. President Fraser stood looking on curiously; it just happened that he had never witnessed this operation before.

"How much have you got in there to-night?" he asked.

"One hundred and twenty-nine thousand," replied the cashier. "And all the securities, of course."

"Hum," mused the president. "That would be a good haul for

some one— if they could get it, eh, West?” and he chuckled dryly.

“Excellent,” returned West, smilingly. “But they can’t.”

Miss Clarke, dressed for the street, her handsome face almost concealed by a veil which was intended to protect her pink cheeks from boisterous winds, was standing in the door of the president’s office.

“Oh, Miss Clarke, before you go, would you write just a short note for me?” asked the president.

“Certainly,” she responded, and she returned to the private office. Mr. Fraser followed her.

West and Dunston stood outside the bank railing, Dunston waiting for Miss Clarke. Every evening he walked over to the subway with her. His opinion of her was an open secret. West was waiting for the janitor to finish sweeping.

“Hurry up, Harris,” he said again.

“Yes, sir,” came the reply, and the janitor applied the broom more vigorously. “Just a little bit more. I’ve finished inside.”

Dunston glanced through the railing. The floor was spick and span and the hardwood glistened cleanly. Various bits of paper came down the corridor before Harris’s broom. The janitor swept it all up into a dustpan just as Miss Clarke came out of the president’s room. With Dunston she walked up the street. As they were going they saw Cashier West come out the front door, with his handkerchief in his hand, and then walk away rapidly.

“Mr. Fraser is doing some figuring,” Miss Clarke explained to Dunston. “He said he might be there for another hour.”

“You are beautiful,” replied Dunston, irrelevantly.

THESE, THEN, were the happenings in detail in the Ralston National Bank from 4:15 o’clock on the afternoon of November 11. That night the bank was robbed. The great steel safe which was considered impregnable was blown and \$129,000 was missing.

The night watchman of the bank, William Haney, was found

senseless, bound and gagged, inside the bank. His revolver lay beside him with all the cartridges out. He had been beaten into insensibility; at the hospital it was stated that there was only a bare chance of his recovery.

The locks, hinges and bolts of the steel safe had been smashed by some powerful explosive, possibly nitro-glycerine. The tiny dial of the time-lock showed that the explosion came at 2:39; the remainder of the lock was blown to pieces.

Thus was fixed definitely the moment at which the robbery occurred. It was shown that the policeman on the beat had been four blocks away. It was perfectly possible that no one heard the explosion, because the bank was situated in a part of the city wholly given over to business and deserted at night.

The burglars had entered the building through a window of the cashier's private office, in the full glare of an electric light. The window sash here had been found unfastened and the protecting steel bars, outside from top to bottom, seemed to have been dragged from their sockets in the solid granite. The granite crumbled away, as if it had been chalk.

Only one possible clew was found. This was a white linen handkerchief, picked up in front of the blown safe. It must have been dropped there at the time of the burglary, because Dunston distinctly recalled it was not there before he left the bank. He would have noticed it while the janitor was sweeping.

This handkerchief was the property of Cashier West. The cashier did not deny it, but could offer no explanation of how it came there. Miss Clarke and Dunston both said that they had seen him leave the bank with a handkerchief in his hand.

PRESIDENT Fraser reached the bank at ten o'clock and was informed of the robbery. He retired to his office, and there he sat, apparently stunned into inactivity by the blow, his head bowed on his arms. Miss Clarke, at her typewriter, frequently glanced at the aged figure with an expression of pity on her face. Her eyes seemed weary, too. Outside, through the closed door,

they could hear the detectives.

From time to time employees of the bank and detectives entered the office to ask questions. The banker answered as if dazed; then the board of directors met and voted to personally make good the loss sustained. There was no uneasiness among depositors, because they knew the resources of the bank were practically unlimited.

Cashier West was not arrested. The directors wouldn't listen to such a thing; he had been cashier for eighteen years, and they trusted him implicitly. Yet he could offer no possible explanation of how his handkerchief had come there. He asserted stoutly that he had not been in the bank from the moment Miss Clarke and Dunston saw him leave it.

After investigation the police placed the burglary to the credit of certain expert cracksmen, identity unknown. A general alarm, which meant a rounding up of all suspicious persons, was sent out, and this drag-net was expected to bring important facts to light. Detective Mallory said so, and the bank officials placed great reliance on his word.

Thus the situation at the luncheon hour. Then Miss Clarke, who, wholly unnoticed, had been waiting all morning at her typewriter, arose and went over to Fraser.

"If you don't need me now," she said, "I'll run out to luncheon."

"Certainly, certainly," he responded, with a slight start. He had apparently forgotten her existence.

She stood silently looking at him for a moment.

"I'm awfully sorry," she said, at last, and her lips trembled slightly.

"Thanks," said the banker, and he smiled faintly. "It's a shock, the worst I ever had."

Miss Clarke passed out with quiet tread, pausing for a moment in the outer office to stare curiously at the shattered steel safe. The banker arose with sudden determination and called to West, who entered immediately.

"I know a man who can throw some light on this thing," said Fraser, positively. "I think I'll ask him to come over and take a look. It might aid the police, anyway. You may know him? Professor Van Dusen."

"Never heard of him," said West, tersely, "but I'll welcome anybody who can solve it. My position is uncomfortable."

President Fraser called Professor Van Dusen—The Thinking Machine—and talked for a moment through the 'phone. Then he turned back to West.

"He'll come," he said, with an air of relief. "I was able to do him a favor once by putting an invention on the market."

Within an hour The Thinking Machine, accompanied by Hutchinson Hatch, reporter, appeared. President Fraser knew the scientist well, but on West the strange figure made a startling, almost uncanny, impression. Every known fact was placed before The Thinking Machine. He listened without comment, then arose and wandered aimlessly about the offices. The employees were amused by his manner; Hatch was a silent looker-on.

"Where was the handkerchief found?" demanded The Thinking Machine, at last.

"Here," replied West, and he indicated the exact spot.

"Any draught through the office— ever?"

"None. We have a patent ventilating system which prevents that."

The Thinking Machine squinted for several minutes at the window which had been unfastened— the window in the cashier's private room— with the steel bars guarding it, now torn out of their sockets, and at the chalklike softness of the granite about the sockets. After awhile he turned to the president and cashier.

"Where is the handkerchief?"

"In my desk," Fraser replied. "The police thought it of no consequence, save, perhaps— perhaps—," and he looked at West.

"Except that it might implicate me," said West, hotly.

"Tut, tut, tut," said Fraser, reprovingly. "No one thinks for a —"

"Well, well, the handkerchief?" interrupted The Thinking Machine, in annoyance.

"Come into my office," suggested the president.

The Thinking Machine started in, saw a woman— Miss Clarke, who had returned from luncheon— and stopped. There was one thing on earth he was afraid of— a woman.

"Bring it out here," he requested.

President Fraser brought it and placed it in the slender hands of the scientist, who examined it closely by a window, turning it over and over. At last he sniffed at it. There was the faint, clinging odor of violet perfume. Then abruptly, irrelevantly, he turned to Fraser.

"How many women employed in the bank?" he asked.

"Three," was the reply; "Miss Clarke, who is my secretary, and two general stenographers in the outer office."

"How many men?"

"Fourteen, including myself."

If the president and Cashier West had been surprised at the actions of The Thinking Machine up to this point, now they were amazed. He thrust the handkerchief at Hatch, took his own handkerchief, briskly scrubbed his hands with it, and also passed that to Hatch.

"Keep those," he commanded.

He sniffed at his hands, then walked into the outer office, straight toward the desk of one of the young women stenographers. He leaned over her, and asked one question:

"What system of shorthand do you write?"

"Pitman," was the astonished reply.

The scientist sniffed. Yes, it was unmistakably a sniff. He left her suddenly and went to the other stenographer. Precisely the same thing happened; standing close to her he asked one question, and at her answer sniffed. Miss Clarke passed through

the outer office to mail a letter. She, too, had to answer the question as the scientist squinted into her eyes, and sniffed.

"Ah," he said, at her answer.

Then from one to another of the employees of the bank he went, asking each a few questions. By this time a murmur of amusement was running through the office. Finally The Thinking Machine approached the cage in which sat Dunston, the receiving teller. The young man was bent over his work, absorbed.

"How long have e you been employed here?" asked the scientist, suddenly.

Dunston started and glanced around quickly.

"Five years," he responded.

"It must be hot work," said The Thinking Machine. "You're perspiring."

"Am I?" inquired the young man, smilingly.

He drew a crumpled handkerchief from his hip pocket, shook it out, and wiped his forehead.

"Ah!" exclaimed The Thinking Machine, suddenly.

He had caught the faint, subtle perfume of violets— an odor identical with that on the handkerchief found in front of the safe.

THE THINKING MACHINE led the way back to the private office of the cashier, with President Fraser, Cashier West and Hatch following.

"Is it possible for anyone to overhear us here?" he asked.

"No," replied the president. "The directors meet here."

"Could anyone outside hear that, for instance?" and with a sudden sweep of his hand he upset a heavy chair.

"I don't know," was the astonished reply. "Why?"

The Thinking Machine went quickly to the door, opened it softly and peered out. Then he closed the door again.

"I suppose I may speak with absolute frankness?" he inquired.

"Certainly," responded the old banker, almost startled.
"Certainly."

"You have presented an abstract problem," The Thinking Machine went on, "and I presume you want a solution of it, no matter where it hits?"

"Certainly," the president again assured him, but his tone expressed a grave, haunting fear.

"In that case," and The Thinking Machine turned to the reporter, "Mr. Hatch, I want you to ascertain several things for me. First, I want to know if Miss Clarke uses or has ever used violet perfume—if so, when she ceased using it."

"Yes," said the reporter. The bank officials exchanged wondering looks.

"Also, Mr. Hatch," and the scientist squinted with his strange eyes straight into the face of the cashier, "go to the home of Mr. West, here, see for yourself his laundry mark, and ascertain beyond any question if he has ever, or any member of his family has ever, used violet perfume."

The cashier flushed suddenly.

"I can answer that," he said, hotly. "No."

"I knew you would say that," said The Thinking Machine, curtly. "Please don't interrupt. Do as I say, Mr. Hatch."

Accustomed as he was to the peculiar methods of this man, Hatch saw faintly the purpose of the inquiries.

"And the receiving teller?" he asked.

"I know about him," was the reply.

Hatch left the room, closing the door behind him. He heard the bolt shot in the lock as he started away.

"I think it only fair to say here, Professor Van Dusen," explained the president, "that we understand thoroughly that it would have been impossible for Mr. West to have had anything to do with or know—"

"Nothing is impossible," interrupted The Thinking Machine.

"But I won't—" began West, angrily.

"Just a moment, please," said The Thinking Machine. "No

one has accused you of anything. What I am doing may explain to your satisfaction just how your handkerchief came here and bring about the very thing I suppose you want— exoneration.”

The cashier sank back into a chair; President Fraser looked from one to the other. Where there had been worry on his face there was now only wonderment.

“Your handkerchief was found in this office, apparently having been dropped by the persons who blew the safe,” and the long, slender fingers of The Thinking Machine were placed tip to tip as he talked. “It was not there the night before. The janitor who swept says so; Dunston, who happened to look, says so; Miss Clarke and Dunston both say they saw you with a handkerchief as you left the bank. Therefore, that handkerchief reached that spot after you left and before the robbery was discovered.”

The cashier nodded.

“You say you don’t use perfume; that no one in your family uses it. If Mr. Hatch verifies this, it will help to exonerate you. But some person who handled that handkerchief after it left your possession and before it appeared here did use perfume. Now who was that person? Who would have had an opportunity?

“We may safely dismiss the possibility that you lost the handkerchief, that it fell into the hands of burglars, that those burglars used perfume, that they brought it to your bank— your own bank, mind you!— and left it. The series of coincidences necessary to bring that about would not have occurred once in a million times.”

The Thinking Machine sat silent for several minutes, squinting steadily at the ceiling.

“If it had been lost anywhere, in the laundry, say, the same rule of coincidence I have just applied would almost eliminate it. Therefore, because of an opportunity to get that handkerchief, we will assume— there is— there must be— some one employed in this bank who had some connection with or

actually participated in the burglary.”

The Thinking Machine spoke with perfect quiet, but the effect was electrical. The aged president staggered to his feet and stood staring at him dully; again the flush of crimson came into the face of the cashier.

“Some one,” The Thinking Machine went on, evenly, “who either found the handkerchief and unwittingly lost it at the time of the burglary, or else stole it and deliberately left it. As I said, Mr. West seems eliminated. Had he been one of the robbers, he would not wittingly have left his handkerchief; we will still assume that he does not use perfume, therefore personally did not drop the handkerchief where it was found.”

“Impossible! I can’t believe it, and of my employees—” began Mr. Fraser.

“Please don’t keep saying things are impossible,” snapped The Thinking Machine. “It irritates me exceedingly. It all comes to the one vital question: Who in the bank uses perfume?”

“I don’t know,” said the two officials.

“I do,” said The Thinking Machine. “There are two— only two, Dunston, your receiving teller, and Miss Clarke.”

“But they—”

“Dunston uses a violet perfume not *like* that on the handkerchief, but *identical* with it,” The Thinking Machine went on. “Miss Clarke uses a strong rose perfume.”

“But those two persons, above all others in the bank, I trust implicitly,” said Mr. Fraser, earnestly. “And, besides, they wouldn’t know how to blow a safe. The police tell me this was the work of experts.”

“Have you, Mr. Fraser, attempted to raise, or have you raised lately, any large sum of money?” asked the scientist, suddenly.

“Well, yes,” said the banker, “I have. For a week past I have tried to raise ninety thousand dollars on my personal account.”

“And you, Mr. West?”

The face of the cashier flushed slightly— it might have been

at the tone of the question— and there was the least pause.

“No,” he answered finally.

“Very well,” and the scientist arose, rubbing his hands; “now we’ll search your employees.”

“What?” exclaimed both men. Then Mr. Fraser added: “That would be the height of absurdity; it would never do. Besides, any person who robbed the bank would not carry proofs of the robbery, or even any of the money about with them— to the bank, above all places.”

“The bank would be the safest place for it,” retorted The Thinking Machine. “It is perfectly possible that a thief in your employ would carry some of the money; indeed, it is doubtful if he would dare do anything else with it. He could see you would have no possible reason for suspecting anyone here— unless it is Mr. West.”

There was a pause. “I’ll do the searching, except the three ladies, of course,” he added, blushing. “With them each combination of two can search the other one.”

Mr. Fraser and Mr. West conversed in low tones for several minutes.

“If the employees will consent I am willing,” Mr. Fraser explained, at last; “although I see no use of it.”

“They will agree,” said The Thinking Machine. “Please call them all into this office.”

Among some confusion and wonderment the three women and fourteen men of the bank were gathered in the cashier’s office, the outer doors being locked. The Thinking Machine addressed them with characteristic terseness.

“In the investigation of the burglary of last night,” he explained, “it has been deemed necessary to search all employees of this bank.” A murmur of surprise ran around the room. “Those who are innocent will agree readily, of course; will all agree?”

There were whispered consultations on all sides. Dunston flushed angrily; Miss Clarke, standing near Mr. Fraser, paled

slightly. Dunston looked at her and then spoke.

"And the ladies?" he asked.

"They, too," explained the scientist. "They may searched one another—in the other room, of course."

"I for one will not submit to such a proceeding," Dunston declared, bluntly, "not because I fear it, but because it is an insult."

Simultaneously it impressed itself on the bank officials and The Thinking Machine that the one person in the bank who used a perfume identical with that on the handkerchief was the first to object to a search. The cashier and president exchanged startled glances.

"Nor will I," came in the voice of a woman.

The Thinking Machine turned and glanced at her. It was Miss Willis, one of the outside stenographers; Miss Clarke and the other woman were pale, but neither had spoken.

"And the others?" asked The Thinking Machine.

Generally there was acquiescence, and as the men came forward the scientist searched them, perfunctorily, it seemed. Nothing! At last there remained three men, Dunston, West and Fraser. Dunston came forward, compelled to do so by the attitude of his fellows. The three women stood together. The Thinking Machine spoke to them as he searched Dunston.

"If the ladies will retire to the next room they may proceed with their search," he suggested. "If any money is found, bring it to me— nothing else."

"I will not, I will not, I will not," screamed Miss Willis, suddenly. "It's an outrage."

Miss Clarke, deathly white and half fainting, threw up her hands and sank without a sound into the arms of President Fraser. There she burst into tears.

"It is an outrage," she sobbed. She clung to President Fraser, her arms flung upward and her face buried on his bosom. He was soothing her with fatherly words, and stroked her hair awkwardly. The Thinking Machine finished the search of

Dunston. Nothing! Then Miss Clarke roused herself and dried her eyes.

"Of course I will have to agree," she said, with a flash of anger in her eyes.

Miss Willis was weeping, but, like Dunston, she was compelled to yield, and the three women went into an adjoining room. There was a tense silence until they reappeared. Each shook her head. The Thinking Machine nearly looked disappointed.

"Dear me!" he exclaimed. "Now, Mr. Fraser." He started toward the president, then paused to pick up a scarf pin.

"This is yours," he said. "I saw it fall," and he made as if to search the aged man.

"Well, do you really think it necessary in my case?" asked the president, in consternation, as he drew back, nervously. "I— I am the president, you know."

"The others were searched in your presence, I will search you in their presence," said The Thinking Machine, tartly.

"But— but—" the president stammered.

"Are you afraid?" the scientist demanded.

"Why, of course not," was the hurried answer; "but it seems so—so unusual."

"I think it best," said The Thinking Machine, and before the banker could draw away his slender fingers were in the inside breast pocket, whence they instantly drew out a bundle of money— one hundred \$100 bills— ten thousand dollars— with the initials of the receiving teller, "P. D."— "o. k.—R. W."

"Great God!" exclaimed Mr. Fraser, ashen white.

"Dear me, dear me!" said The Thinking Machine again. He sniffed curiously at the bundle of bank notes, as a hound might sniff at a trail.

PRESIDENT FRASER was removed to his home in a dangerous condition. His advanced age did not withstand the shock. Now alternately he raved and muttered incoherently, and the old eyes were wide, staring fearfully always. There was a consultation between The Thinking Machine and West after the removal of President Fraser, and the result was another hurried meeting of the board of directors. At that meeting West was placed, temporarily, in command. The police, of course, had been informed of the matter, but no arrest was probable.

Immediately after The Thinking Machine left the bank Hatch appeared and inquired for him. From the bank he went to the home of the scientist. There Professor Van Dusen was bending over a retort, busy with some problem.

"Well?" he demanded, as he glanced up.

"West told the truth," began Hatch. "Neither he nor any member of his family uses perfume; he has few outside acquaintances, is regular in his habits, but is a man of considerable wealth, it appears."

"What is his salary at the bank?" asked The Thinking Machine.

"Fifteen thousand a year," said the reporter. "But he must have a large fortune. He lives like a millionaire."

"He couldn't do that on fifteen thousand dollars a year," mused the scientist. "Did he inherit any money?"

"No," was the reply. "He started as a clerk in the bank and has made himself what he is."

"That means speculation," said The Thinking Machine. "You can't save a fortune from a salary, even fifteen thousand dollars a year. Now, Mr. Hatch, find out for me all about his business connections. His source of income particularly I would like to know. Also whether or not he has recently sought to borrow or has received a large sum of money; if he got it and what he did with it. He says he has not sought such a sum. Perhaps he told the truth."

"Yes, and about Miss Clarke—"

"Yes; what about her?" asked The Thinking Machine.

"She occupies a little room in a boarding-house for women in an excellent district," the reporter explained. "She has no friends who call there, at any rate. Occasionally, however, she goes out at night and remains late."

"The perfume?" asked the scientist.

"She uses a perfume, the housekeeper tells me, but she doesn't recall just what kind it is— so many of the young women in the house use it. So I went to her room and looked. There was no perfume there. Her room was considerably disarranged, which seemed to astonish the housekeeper, who declared that she had carefully arranged it about nine o'clock. It was two when I was there."

"How was it disarranged?" asked the scientist.

"The couch cover was jerked awry and the pillows tumbled down, for one thing," said the reporter. "I didn't notice any further."

The Thinking Machine relapsed into silence.

"What happened at the bank?" inquired Hatch.

Briefly the scientist related the facts leading up to the search, the search itself and its startling result. The reporter whistled.

"Do you think Fraser had anything to do with it?"

"Run out and find out those other things about West," said The Thinking Machine, evasively. "Come back here to-night. It doesn't matter what time."

"But who do you think committed the crime?" insisted the newspaper man.

"I may be able to tell you when you return."

For the time being The Thinking Machine seemed to forget the bank robbery, being busy in his tiny laboratory. He was aroused from his labors by the ringing of the telephone bell.

"Hello," he called. "Yes, Van Dusen. No, I can't come down to the bank now. What is it? Oh, it has disappeared? When? Too bad! How's Mr. Fraser? Still unconscious? Too bad! I'll see you

to-morrow."

The scientist was still engrossed in some delicate chemical work just after eight o'clock that evening when Martha, his housekeeper and maid of all work, entered.

"Professor," she said, "there's a lady to see you."

"Name?" he asked, without turning.

"She didn't give it, sir."

"There in a moment."

He finished the test he had under way, then left the little laboratory and went into the hall leading to the sitting-room, where unprivileged callers awaited his pleasure. He sniffed a little as he stepped into the hall. At the door of the sitting-room he paused and peered inside. A woman arose and came toward him. It was Miss Clarke.

"Good-evening," he said. "I knew you'd come."

Miss Clarke looked a little surprised, but made no comment.

"I came to give you some information," she said, and her voice was subdued. "I am heartbroken at the awful things which have come out concerning— concerning Mr. Fraser. I have been closely associated with him for several months, and I won't believe that he could have had anything to do with this affair, although I know positively that he was as in need of a large sum of money— ninety thousand dollars— because his personal fortune was in danger. Some error in titles to an estate, he told me."

"Yes, yes," said The Thinking Machine.

"Whether he was able to raise this money I don't know," she went on. "I only hope he did without having to— to do that— to have any—"

"To rob his bank," said the scientist, tartly. "Miss Clarke, is young Dunston in love with you?"

The girl's face changed color at the sudden question.

"I don't see—" she began.

"You may not see," said The Thinking Machine, "but I can have him arrested for robbery and convict him."

The girl gazed at him with wide, terror-stricken eyes, and gasped.

"No, no, no," she said, hurriedly. "He could have had nothing to do with that at all."

"Is he in love with you?" again came the question.

There was a pause.

"I've had reason to believe so," she said, finally, "though—"

"And you?"

"The girl's face was flaming now, and, squinting into her eyes, the scientist read the answer.

"I understand," he commented, tersely. "Are you going to be married?"

"I could— could never marry him," she gasped suddenly.

"No, no," emphatically. "We are not, ever."

She slowly recovered from her confusion, while the scientist continued to squint at her curiously.

"I believe you said you had some information for me?" he asked.

"Y— yes," she faltered. Then more calmly: "Yes. I came to tell you that the package of ten thousand dollars which you took from Mr. Fraser's pocket has again disappeared."

"Yes," said the other, without astonishment.

"It was presumed at the bank that he had taken it home with him, having regained possession of it in some way, but a careful search has failed to reveal it."

"Yes, and what else?"

The girl took a long breath and gazed steadily into the eyes of the scientist, with determination in her own.

"I have come, too, to tell you," she said, "the name of the man who robbed the bank."

IF MISS Clarke had expected that The Thinking Machine would show either astonishment or enthusiasm, she must have been disappointed, for he neither altered his position nor looked at her. Instead, he was gazing thoughtfully away with lackluster

eyes.

"Well?" he asked. "I suppose it's a story. Begin at the beginning."

With a certain well-bred air of timidity, the girl began the story; and occasionally as she talked there was a little tremor of the lips.

"I have been a stenographer and typewriter for seven years," she said, "and in that time I have held only four positions. The first was in a law office in New York, where I was left an orphan to earn my own living; the second was with a manufacturing concern, also in New York. I left there three years ago to accept the position of private secretary to William T. Rankin, president of the — National Bank, at Hartford, Connecticut. I came from there to Boston and later went to work at the Ralston Bank, as private secretary to Mr. Fraser. I left the bank in Hartford because of the failure of that concern, following a bank robbery."

The Thinking Machine glanced at her suddenly.

"You may remember from the newspapers—" she began again.

"I never read the newspapers," he said.

"Well, anyway," and there was a shade of impatience at the interruption, "there was a bank burglary there similar to this. Only seventy thousand dollars was stolen, but it was a small institution and the theft precipitated a run which caused a collapse after I had been in that position for only six months."

"How long have you been with the Ralston National?"

"Nine months," was the reply.

"Had you saved any money while working in your other positions?"

"Well, the salary was small— I couldn't have saved much."

"How did you live those two years from the time you left the Hartford Bank until you accepted this position?"

The girl stammered a little.

"I received assistance from friends," she said, finally.

"Go on."

"That bank in Hartford," she continued, with a little gleam of resentment in her eyes, "had a safe similar to the one at the Ralston National, though not so large. It was blown in identically the same way as this one was blown."

"Oh, I see," said the scientist. "Some one was arrested for this, and you want to give me the name of that man?"

"Yes," said the girl. "A professional burglar, William Dineen, was arrested for that robbery and confessed. Later he escaped. After his arrest he boasted of his ability to blow any style of safe. He used an invention of his own for the borings to place the charges. I noticed that safe and I noticed this one. There is a striking similarity in the two."

The Thinking Machine stared at her.

"Why do you tell me?" he asked.

"Because I understood you were making the investigation for the bank," she responded, unhesitatingly, "and I dreaded the notoriety of telling the police."

"If this William Dineen is at large you believe he did this?"

"I am almost positive."

"Thank you," said The Thinking Machine.

Miss Clarke went away, and late that night Hatch appeared. He looked weary and sank into a chair gratefully, but there was satisfaction in his eye. For an hour or more he talked. At last The Thinking Machine was satisfied, nearly.

"One thing more," he said, in conclusion. "Notify the police to look out for William Dineen, professional bank burglar, and his pals, whose names you can get from the newspapers in connection with a bank robbery in Hartford. They are wanted in connection with this case."

The reporter nodded.

"When Mr. Fraser recovers I intend to hold a little party here," the scientist continued. "It will be a surprise party."

It was two days later, and the police were apparently seeking some tangible point from which they could proceed, when The

Thinking Machine received word that there had been a change for the better in Mr. Fraser's condition. Immediately he sent for Detective Mallory, with whom he held a long conversation. The detective went away tugging at his heavy mustache and smiling. With three other men he disappeared from police haunts that afternoon on a special mission.

That night the little "party" was held in the apartments of The Thinking Machine. President Fraser was first to arrive. He was pale and weak, but there was a fever of impatience in his manner. Then came West, Dunston, Miss Clarke, Miss Willis and Charles Burton, a clerk whose engagement to the pretty Miss Willis had been recently announced.

The party gathered, each staring at the other curiously, with questions in their eyes, until The Thinking Machine entered, rubbing his fingers together briskly. Behind him came Hatch, bearing a shabby gripsack. The reporter's face showed excitement despite his rigid efforts to repress it. There were some preliminaries, and then the scientist began.

"To come to the matter quickly," he said, in preface, "we will take it for granted that no employee of the Ralston Bank is a professional burglar. But the person who was responsible for that burglary, who shared the money stolen, who planned it and actually assisted in its execution is in this room— now."

Instantly there was consternation, but it found no expression in words, only in the faces of those present.

"Further, I may inform you," went on the scientist, "that no one will be permitted to leave this room until I finish."

"Permitted?" demanded Dunston. "We are not prisoners."

"You will be if I give the word," was the response, and Dunston sat back, dazed. He glanced uneasily at the faces of the others; they glanced uneasily at him.

"The actual facts in the robbery you know," went on The Thinking Machine. "You know that the safe was blown, that a large sum of money was stolen, that Mr. West's handkerchief was found near the safe. Now, I'll tell you what I have learned.

We will begin with President Fraser.

"Against Mr. Fraser is more direct evidence than against anyone else, because in his pocket was found one of the stolen bundles of money, containing ten thousand dollars. Mr. Fraser needed ninety thousand dollars previous to the robbery."

"But—" began the old man, with deathlike face.

"Never mind," said the scientist. "Next, Miss Willis." Curious eyes were turned on her, and she, too, grew suddenly white. "Against her is less direct evidence than against anyone else. Miss Willis positively declined to permit a search of her person until she was as compelled to do so by the fact that the other two permitted it. The fact that nothing was found has no bearing on the subject. She did refuse.

"Then Charles Burton," the inexorable voice went on, calmly, as if in mere discussion of a problem of mathematics. "Burton is engaged to Miss Willis. He is ambitious. He recently lost twenty thousand dollars in stock speculation— all he had. He needed more money in order to give this girl, who refused to be searched, a comfortable home.

"Next Miss Clarke, secretary to Mr. Fraser. Originally she came under consideration through the fact that she used perfume, and that Mr. West's handkerchief carried a faint odor of perfume. Now it is a fact that for years Miss Clarke used violet perfume, then on the day following the robbery suddenly began to use strong rose perfume, which smothers a violet odor. Miss Clarke, you will remember, fainted at the time of the search. I may add that a short while ago she was employed in a bank which was robbed in the identical manner of this one."

Miss Clarke sat apparently calm, and even faintly smiling, but her face was white. The Thinking Machine squinted at her a moment, then turned suddenly to Cashier West.

"Here is the man," he said, "whose handkerchief was found, but he does not use perfume, has never used it. He is the man who would have had best opportunity to leave unfastened the window in his private office by which the thieves entered the

bank; he is the man who would have had the best opportunity to apply a certain chemical solution to the granite sockets of the steel bars, weakening the granite so they could be pulled out; he is the man who misrepresented facts to me. He told me he did not have and had not tried to raise any especially large sum of money. Yet on the day following the robbery he deposited one hundred and twenty-five thousand dollars in cash in a bank in Chicago. The stolen sum was one hundred and twenty- nine thousand dollars. That man, there."

All eyes were now turned on the cashier. He seemed choking, started to speak, then dropped back into his chair.

"And last, Dunston," resumed The Thinking Machine, and he pointed dramatically at the receiving teller. "He had equal opportunity with Mr. West to know of the amount of money in the bank; he refused first to be searched, and you witnessed his act a moment ago. To this man now there clings the identical odor of violet perfume which was on the handkerchief— not a perfume like it, but the identical odor."

There was silence, dumfounded silence, for a long time. No one dared to look at his neighbor now; the reporter felt the tension. At last The Thinking Machine spoke again.

"As I have said, the person who planned and participated in the burglary is now in this room. If that person will stand forth and confess it will mean a vast difference in the length of the term in prison."

Again silence. At last there came a knock at the door, and Martha thrust her head in.

"Two gentlemen and four cops are here," she announced.

"There are the accomplices of the guilty person, the men who actually blew that safe," declared the scientist, dramatically. "Again, will the guilty person confess?"

No one stirred.

THERE WAS tense silence for a moment. Dunston was the first to speak.

"This is all a bluff," he said. "I think, Mr. Fraser, there are some explanations and apologies due to all of us, particularly to Miss Clarke and Miss Willis," he added, as an afterthought. "It is humiliating, and no good has been done. I had intended asking Miss Clarke to be my wife, and now I assert my right to speak for her. I demand an apology."

Carried away by his own anger and by the pleading face of Miss Clarke and the pain there, the young man turned fiercely on The Thinking Machine. Bewilderment was on the faces of the two banking officials.

"You feel that an explanation is due?" asked The Thinking Machine, meekly.

"Yes," thundered the young man.

"You shall have it," was the quiet answer, and the stooped figure of the scientist moved across the room to the door. He said something to some one outside and returned.

"Again I'll give you a chance for a confession," he said. "It will shorten your prison term." He was speaking to no one in particular; yet to them all. "The two men who blew the safe are now about to enter this room. After they appear it will be too late."

Startled glances were exchanged, but no one stirred. Then came a knock at the door. Silently The Thinking Machine looked about with a question in his eyes. Still silence, and he threw open the door. Three policemen in uniform and Detective Mallory entered, bringing two prisoners.

"These are the men who blew the safe," The Thinking Machine explained, indicating the prisoners. "Does anyone here recognize them?"

Apparently no one did, for none spoke.

"Do you recognize any person in this room?" he asked of the prisoners.

One of them laughed shortly and said something aside to the other, who smiled. The Thinking Machine was nettled and when he spoke again there was a touch of sarcasm in his voice.

"It may enlighten at least one of you in this room," he said, "to tell you that these two men are Frank Seranno and Gustave Meyer, Mr. Meyer being a pupil and former associate of the notorious bank burglar, William Dineen. You may lock them up now," he said to Detective Mallory. "They will confess later."

"Confess!" exclaimed one of them. Both laughed.

The prisoners were led out and Detective Mallory returned to lave in the font of analytical wisdom, although he would not have expressed it in those words. Then The Thinking Machine began at the beginning and told his story.

"I undertook to throw some light on this affair a few hours after its occurrence, at the request of President Fraser, who had once been able to do me a very great favor," he explained. "I went to the bank— you all saw me there— looked over the premises, saw how the thieves had entered the building, looked at the safe and at the spot where the handkerchief was found. To my mind it was demonstrated clearly that the handkerchief appeared there at the time of the burglary. I inquired if there was any draught through the office, seeking in that way to find if the handkerchief might have been lost at some other place in the bank, overlooked by the sweeper and blown to the spot where it was found. There was no draught.

"Next I asked for the handkerchief. Mr. Fraser asked me into his office to look at it. I saw a woman— Miss Clarke it was— in there and declined to go. Instead, I examined the handkerchief outside. I don't know that my purpose there can be made clear to you. It was a possibility that there would be perfume on the handkerchief, and the woman in the office might use perfume. I didn't want to confuse the odors. Miss Clarke was not in the bank when I arrived; she had gone to luncheon.

"Instantly I got the handkerchief I noticed the odor of perfume— violet perfume. Perfume is used by a great many women, by very few men. I asked how many women were employed in the bank. There were three. I handed the scented handkerchief to Mr. Hatch, removed all odor of the clinging

perfume from my hands with my own handkerchief and also handed that to Mr. Hatch, so as to completely rid myself of the odor.

“Then I started through the bank and spoke to every person in it, standing close to them so that I might catch the odor if they used it. Miss Clarke was the first person who I found used it—but the perfume she used was a strong rose odor. Then I went on until I came to Mr. Dunston. The identical odor of the handkerchief he revealed to me by drawing out his own handkerchief while I talked to him.”

Dunston looked a little startled, but said nothing; instead he glanced at Miss Clarke, who sat listening, interestedly. He could not read the expression on her face.

“This much done,” continued The Thinking Machine, “we retired to Cashier West’s office. There I knew the burglars had entered; there I saw a powerful chemical solution had been applied to the granite around the sockets of the protecting steel bars to soften the stone. Its direct effect is to make it of chalklike consistency. I was also curious to know if any noise made in that room would attract attention in the outer office, so I upset a heavy chair, then looked outside. No one moved or looked back; therefore no one heard.

“Here I explained to President Fraser and to Mr. West why I connected some one in the bank with the burglary. It was because of the scent on the handkerchief. It would be tedious to repeat the detailed explanation I had to give them. I sent Mr. Hatch to find out, first, if Miss Clarke here had ever used violet perfume instead of rose; also to find out if any members of Mr. West’s family used any perfume, particularly violet. I knew that Mr. Dunston used it.

“Then I asked Mr. Fraser if he had sought to raise any large sum of money. He told me the truth. But Mr. West did not tell me the truth in answer to a question along the same lines. Now I know why. It was because as cashier of the bank he was not supposed to operate in stocks, yet he has made a fortune at it.

He didn't want Fraser to know this, and willfully misrepresented the facts.

"Then came the search. I expected to find just what was found, money, but considerably more of it. Miss Willis objected, Mr. Dunston objected and Miss Clarke fainted in the arms of Mr. Fraser. I read the motives of each aright. Dunston objected because he is an egotistical young man and, being young, is foolish. He considered it an insult. Miss Willis objected also through a feeling of pride."

The Thinking Machine paused for a moment, locked his fingers behind his head and leaned far back in his chair.

"Shall I tell what happened next?" he asked, "or will you tell it?"

Everyone in the room knew it was a question to the guilty person. Which? Whom? There came no answer, and after a moment The Thinking Machine resumed, quietly, very quietly.

"Miss Clarke fainted in Mr. Fraser's arms. While leaning against him, and while he stroked her hair and tried to soothe her, she took from the bosom of her loose shirtwaist a bundle of money, ten thousand dollars, and slipped it into the inside pocket of Mr. Fraser's coat."

There was deathlike silence.

"It's a lie!" screamed the girl, and she rose to her feet with anger-distorted face. "It's a lie!"

Dunston arose suddenly and went to her. With his arm about her he turned defiantly to The Thinking Machine, who had not moved or altered his position in the slightest. Dunston said nothing, because there seemed to be nothing to say.

"Into the inside pocket of Mr. Fraser's coat," The Thinking Machine repeated. "When she removed her arms his scarf pin clung to the lace on one of her sleeves. That I saw. That pin could not have caught on her sleeve where it did if her hand had not been to the coat pocket. Having passed this sum of money—her pitiful share of the theft— she agreed to the search."

"It's a lie!" shrieked the girl again. And her every tone and

every gesture said it was the truth. Dunston gazed into her eyes with horror in his own and his arm fell limply. Still he said nothing.

"Of course nothing was found," the quiet voice went on. "When I discovered the bank notes in Mr. Fraser's pocket I smelled of them— seeking the odor, this time not of violet perfume, but of rose perfume. I found it."

Suddenly the girl whose face had shown only anger and defiance leaned over with her head in her hands and wept bitterly. It was a confession. Dunston stood beside her, helplessly; finally his hand was slowly extended and he stroked her hair.

"Go on, please," he said to Professor Van Dusen, meekly. His suffering was no less than hers.

"These facts were important, but not conclusive," said The Thinking Machine, "so next, with Mr. Hatch's aid here, I ascertained other things about Miss Clarke. I found out that when she went out to luncheon that day she purchased some powerful rose perfume; that, contrary to custom, she went home; that she used it liberally in her room; and that she destroyed a large bottle of violet perfume which you, Mr. Dunston, had given her. I ascertained also that her room was disarranged, particularly the couch. I assume from this that when she went to the office in the morning she did not have the money about her; that she left it hidden in the couch; that through fear of its discovery she rushed back home to get it; that she put it inside her shirtwaist, and there she had it when the search was made. Am I right, Miss Clarke?"

The girl nodded her head and looked up with piteous, tear-stained face.

"That night Miss Clarke called on me. She came ostensibly to tell me that the package of money, ten thousand dollars, had disappeared again. I knew that previously by telephone, and I knew, too, that she had that money then about her. She has it now. Will you give it up?"

Without a word the girl drew out the bundle of money, ten thousand dollars. Detective Mallory took it, held it, amazed for an instant, then passed it to The Thinking Machine, who sniffed at it.

“An odor of strong rose perfume,” he said. Then: “Miss Clarke also told me that she had worked in a bank which had been robbed under circumstances identical with this by one William Dineen, and expressed the belief that he had something to do with this. Mr. Hatch ascertained that two of Dineen’s pals were living in Cambridge. He found their rooms and searched them, later giving the address to the police.

“Now, why did Miss Clarke tell me that? I considered it in all points. She told me either to aid honestly in the effort to catch the thief, or to divert suspicion in another direction. Knowing as much as I did then, I reasoned it was to divert suspicion from you, Mr. Dunston, and from herself possibly. Dineen is in prison, and was there three months before this robbery; I believed she knew that. His pals are the two men in the other room; they are the men who aided Dineen in the robbery of the Hartford bank, with Miss Clarke’s assistance; they are the men who robbed the Ralston National with her assistance. She herself indicated her profit from the Hartford robbery to me by a remark she made indicating that she had not found it necessary to work for two years from the time she left the Hartford bank until she became Mr. Fraser’s secretary.”

There was a pause. Miss Clarke sat sobbing, while Dunston stood near her studying the toe of his shoe. After awhile the girl became more calm.

“Miss Clarke, would you like to explain anything?” asked The Thinking Machine. His voice was gentle, even deferential.

“Nothing,” she said, “except admit it all— all. I have nothing to conceal. I went to the bank, as I went to the bank in Hartford, for the purpose of robbery, with the assistance of those men in the next room. We have worked together for years. I planned this robbery; I had the opportunity, and availed myself of it, to

put a solution on the sockets of the steel bars of the window in Mr. West's room, which would gradually destroy the granite and make it possible to pull out the bars. This took weeks, but I could reach that room safely from Mr. Fraser's.

"I had the opportunity to leave the window unfastened and did so. I dressed in men's clothing and accompanied those two men to the bank. We crept in the window, after pulling the bars out. The men attacked the night watchman and bound him. The handkerchief of Mr. West's I happened to pick up in the office one afternoon a month ago and took it home. There it got the odor of perfume from being in a bureau with my things. On the night we went to the bank I needed something to put about my neck and used it. In the bank I dropped it. We had arranged all details at night, when I met them."

She stopped and looked at Dunston, a long, lingering look, that sent the blood to his face. It was not an appeal; it was nothing save the woman love in her, mingled with desperation.

"I intended to leave the bank in a little while," she went on. "Not immediately, because I was afraid that would attract attention, but after a few weeks. And then, too, I wanted to get forever out of sight of this man," and she indicated Dunston.

"Why?" he asked.

"Because I loved you as no woman ever loved a man before," she said, "and I was not worthy. There was another reason, too— I am married already. This man, Gustave Meyer, is my husband."

She paused and fumbled nervously at the veil fastening at her throat. Silence lay over the room; The Thinking Machine reached behind him and picked up the shabby-looking gripsack which had passed unnoticed.

"Are there any more questions?" the girl asked, at last.

"I think not," said The Thinking Machine.

"And, Mr. Dunston, you will give me credit for some good, won't you—some good in that I loved you?" she pleaded.

"My God!" he exclaimed in a sudden burst of feeling.

"Look out!" shouted The Thinking Machine.

He had seen the girl's hand fly to her hat, saw it drawn suddenly away, saw something slender flash at her breast. But it was too late. She had driven a heavy hat pin straight through her breast, piercing the heart. She died in the arms of the man she loved, with his tears on her face.

Detective Mallory appeared before the two prisoners in an adjoining room.

"Miss Clarke has confessed," he said.

"Well, the little devil!" exclaimed Meyer. "I knew some day she would throw us. I'll kill her!"

"It isn't necessary," remarked Mallory.

IN THE ROOM where the girl lay The Thinking Machine pushed with his foot the shabby-looking grip toward President Fraser and West.

"There's the money," he said.

"Where— how did you get it?"

"Ask Mr. Hatch."

"Professor Van Dusen told me to search the rooms of those men in there, find the shabbiest looking bag or receptacle that was securely locked, and bring it to him. I— I did so. I found it under the bed, but I didn't know what was in it until he opened it."

7. The Scarlet Thread

THE Thinking Machine— Professor Augustus S. F. X. Van Dusen, Ph. D, LL. D., F. R. S., M. D., etc., scientist and logician— listened intently and without comment to a weird, seemingly inexplicable story. Hutchinson Hatch, reporter, was telling it. The bowed figure of the savant lay at ease in a large chair. The enormous head with its bushy yellow hair was thrown back, the thin, white fingers were pressed tip to tip and the blue eyes,

narrowed to mere slits, squinted aggressively upward. The scientist was in a receptive mood.

"From the beginning, every fact you know," he had requested.

"It's all out in the Back Bay," the reporter explained. "There is a big apartment house there, a fashionable establishment, in a side street, just off Commonwealth Avenue. It is five stories in all, and is cut up into small suites, of two and three rooms with a bath. These suites are handsomely, even luxuriously furnished, and are occupied by people who can afford to pay big rents. Generally these are young unmarried men, although in several cases they are husband and wife. It is a house of every modern improvement, elevator service, hall boys, liveried door men, spacious corridors and all that. It has both the gas and electric systems of lighting. Tenants are at liberty to use either or both.

"A young broker, Weldon Henley, occupies one of the handsomest of these suites, being on the second floor, in front. He has met with considerable success in the Street. He is a bachelor and lives there alone. There is no personal servant. He dabbles in photography as a hobby, and is said to be remarkably expert.

"Recently there was a report that he was to be married this Winter to a beautiful Virginia girl who has been visiting Boston from time to time, a Miss Lipscomb— Charlotte Lipscomb, of Richmond. Henley has never denied or affirmed this rumor, although he has been asked about it often. Miss Lipscomb is impossible of access even when she visits Boston. Now she is in Virginia, I understand, but will return to Boston later in the season."

The reporter paused, lighted a cigarette and leaned forward in his chair, gazing steadily into the inscrutable eyes of the scientist.

"When Henley took the suite he requested that all the electric lighting apparatus be removed from his apartments," he went on. "He had taken a long lease of the place, and this was

done. Therefore he uses only gas for lighting purposes, and he usually keeps one of his gas jets burning low all night."

"Bad, bad for his health," commented the scientist.

"Now comes the mystery of the affair," the reporter went on. "It was five weeks or so ago Henley retired as usual— about midnight. He locked his door on the inside— he is positive of that— and awoke about four o'clock in the morning nearly asphyxiated by gas. He was barely able to get up and open the window to let in the fresh air. The gas jet he had left burning was out, and the suite was full of gas."

"Accident, possibly," said The Thinking Machine. "A draught through the apartments; a slight diminution of gas pressure; a hundred possibilities."

"So it was presumed," said the reporter. "Of course it would have been impossible for—"

"Nothing is impossible," said the other, tartly. "Don't say that. It annoys me exceedingly."

"Well, then, it seems highly improbable that the door had been opened or that anyone came into the room and did this deliberately," the newspaper man went on, with a slight smile. "So Henley said nothing about this; attributed it to accident. The next night he lighted his gas as usual, but he left it burning a little brighter. The same thing happened again."

"Ah," and The Thinking Machine changed his position a little. "The second time."

"And again he awoke just in time to save himself," said Hatch. "Still he attributed the affair to accident, and determined to avoid a recurrence of the affair by doing away with the gas at night. Then he got a small night lamp and used this for a week or more."

"Why does he have a light at all?" asked the scientist, testily.

"I can hardly answer that," replied Hatch. "I may say, however, that he is of a very nervous temperament, and gets up frequently during the night. He reads occasionally when he can't sleep. In addition to that he has slept with a light going all his

life; it's a habit."

"Go on."

"One night he looked for the night lamp, but it had disappeared— at least he couldn't find it— so he lighted the gas again. The fact of the gas having twice before gone out had been dismissed as a serious possibility. Next morning at five o'clock a bell boy, passing through the hall, smelled gas and made a quick investigation. He decided it came from Henley's place, and rapped on the door. There was no answer. It ultimately developed that it was necessary to smash in the door. There on the bed they found Henley unconscious with the gas pouring into the room from the jet which he had left lighted. He was revived in the air, but for several hours was deathly sick."

"Why was the door smashed in?" asked The Thinking Machine. "Why not unlocked?"

"It was done because Henley had firmly barred it," Hatch explained. "He had become suspicious, I suppose, and after the second time he always barred his door and fastened every window before he went to sleep. There may have been a fear that some one used a key to enter."

"Well?" asked the scientist. "After that?"

"Three weeks or so elapsed, bringing the affair down to this morning," Hatch went on. "Then the same thing happened a little differently. For instance, after the third time the gas went out Henley decided to find out for himself what caused it, and so expressed himself to a few friends who knew of the mystery. Then, night after night, he lighted the gas as usual and kept watch. It was never disturbed during all that time, burning steadily all night. What sleep he got was in daytime."

"Last night Henley lay awake for a time; then, exhausted and tired, fell asleep. This morning early he awoke; the room was filled with gas again. In some way my city editor heard of it and asked me to look into the mystery."

That was all. The two men were silent for a long time, and finally The Thinking Machine turned to the reporter.

"Does anyone else in the house keep gas going all night?" he asked.

"I don't know," was the reply. "Most of them, I know, use electricity."

"Nobody else has been overcome as he has been?"

"No. Plumbers have minutely examined the lighting system all over the house and found nothing wrong."

"Does the gas in the house all come through the same meter?"

"Yes, so the manager told me. I supposed it possible that some one shut it off there on these nights long enough to extinguish the lights all over the house, then turned it on again. That is, presuming that it was done purposely. Do you think it was an attempt to kill Henley?"

"It might be," was the reply. "Find out for me just who in the house uses gas; also if anyone else leaves a light burning all night; also what opportunity anyone would have to get at the meter, and then something about Henley's love affair with Miss Lipscomb. Is there anyone else? If so, who? Where does he live? When you find out these things come back here."

THAT AFTERNOON at one o'clock Hatch returned to the apartments of The Thinking Machine, with excitement plainly apparent on his face.

"Well?" asked the scientist.

"A French girl, Louise Regnier, employed as a maid by Mrs. Standing in the house, was found dead in her room on the third floor to-day at noon," Hatch explained quickly. "It looks like suicide."

"How?" asked The Thinking Machine.

"The people who employed her— husband and wife— have been away for a couple of days," Hatch rushed on. "She was in the suite alone. This noon she had not appeared, there was an odor of gas and the door was broken in. Then she was found dead."

"With the gas turned on?"

"With the gas turned on. She was asphyxiated."

"Dear me, dear me," exclaimed the scientist. He arose and took up his hat. "Let's go and see what this is all about."

WHEN Professor Van Dusen and Hatch arrived at the apartment house they had been preceded by the Medical Examiner and the police. Detective Mallory, whom both knew, was moving about in the apartment where the girl had been found dead. The body had been removed and a telegram sent to her employers in New York.

"Too late," said Mallory, as they entered.

"What was it, Mr. Mallory?" asked the scientist.

"Suicide," was the reply. "No question of it. It happened in this room," and he led the way into the third room of the suite. "The maid, Miss Regnier, occupied this, and was here alone last night. Mr. and Mrs. Standing, her employers, have gone to New York for a few days. She was left alone, and killed herself."

Without further questioning The Thinking Machine went over to the bed, from which the girl's body had been taken, and, stooping beside it, picked up a book. It was a novel by "The Duchess." He examined this critically, then, standing on a chair, he examined the gas jet. This done, he stepped down and went to the window of the little room. Finally The Thinking Machine turned to the detective.

"Just how much was the gas turned on?" he asked.

"Turned on full," was the reply.

"Were both the doors of the room locked?"

"Both, yes."

"Any cotton, or cloth, or anything of the sort stuffed in the cracks of the window?"

"No. It's a tight-fitting window, anyway. Are you trying to make a mystery out of this?"

"Cracks in the doors stuffed?" The Thinking Machine went on.

"No." There was a smile about the detective's lips.

The Thinking Machine, on his knees, examined the bottom of one of the doors, that which led into the hall. The lock of this door had been broken when employees burst into the room. Having satisfied himself here and at the bottom of the other door, which connected with the bedroom adjoining, The Thinking Machine again climbed on a chair and examined the doors at the top.

"Both transoms closed, I suppose?" he asked.

"Yes," was the reply. "You can't make anything but suicide out of it," explained the detective. "The Medical Examiner has given that as his opinion— and everything I find indicates it."

"All right," broke in The Thinking Machine abruptly. "Don't let us keep you."

After awhile Detective Mallory went away. Hatch and the scientist went down to the office floor, where they saw the manager. He seemed to be greatly distressed, but was willing to do anything he could in the matter.

"Is your night engineer perfectly trustworthy?" asked The Thinking Machine.

"Perfectly," was the reply. "One of the best and most reliable men I ever met. Alert and wide-awake."

"Can I see him a moment? The night man, I mean?"

"Certainly," was the reply. "He's downstairs. He sleeps there. He's probably up by this time. He sleeps usually till one o'clock in the daytime, being up all night."

"Do you supply gas for your tenants?"

"Both gas and electricity are included in the rent of the suites. Tenants may use one or both."

"And the gas all comes through one meter?"

"Yes, one meter. It's just off the engine room."

"I suppose there's no way of telling just who in the house uses gas?"

"No. Some do and some don't. I don't know."

This was what Hatch had told the scientist. Now together

they went to the basement, and there met the night engineer, Charles Burlingame, a tall, powerful, clean-cut man, of alert manner and positive speech. He gazed with a little amusement at the slender, almost childish figure of The Thinking Machine and the grotesquely large head.

"You are in the engine room or near it all night every night?" began The Thinking Machine.

"I haven't missed a night in four years," was the reply.

"Anybody ever come here to see you at night?"

"Never. It's against the rules."

"The manager or a hall boy?"

"Never."

"In the last two months?" The Thinking Machine persisted.

"Not in the last two years," was the positive reply. "I go on duty every night at seven o'clock, and I am on duty until seven in the morning. I don't believe I've seen anybody in the basement here with me between those hours for a year at least."

The Thinking Machine was squinting steadily into the eyes of the engineer, and for a time both were silent. Hatch moved about the scrupulously clean engine room and nodded to the day engineer, who sat leaning back against the wall. Directly in front of him was the steam gauge.

"Have you a fireman?" was The Thinking Machine's next question.

"No. I fire myself," said the night man. "Here's the coal," and he indicated a bin within half a dozen feet of the mouth of the boiler.

"I don't suppose you ever had occasion to handle the gas meter?" insisted The Thinking Machine.

"Never touched it in my life," said the other. "I don't know anything about meters, anyway."

"And you never drop off to sleep at night for a few minutes when you get lonely? Doze, I mean?"

The engineer grinned good-naturedly.

"Never had any desire to, and besides I wouldn't have the

chance," he explained. "There's a time check here,"— and he indicated it. "I have to punch that every half hour all night to prove that I have been awake."

"Dear me, dear me," exclaimed The Thinking Machine, irritably. He went over and examined the time check— a revolving paper disk with hours marked on it, made to move by the action of a clock, the face of which showed in the middle.

"Besides there's the steam gauge to watch," went on the engineer. "No engineer would dare go to sleep. There might be an explosion."

"Do you know Mr. Weldon Henley?" suddenly asked The Thinking Machine.

"Who?" asked Burlingame.

"Weldon Henley?"

"No-o," was the slow response. "Never heard of him. Who is he?"

"One of the tenants, on the second floor, I think."

"Lord, I don't know any of the tenants. What about him?"

"When does the inspector come here to read the meter?"

"I never saw him. I presume in daytime, eh Bill?" and he turned to the day engineer.

"Always in the daytime— usually about noon," said Bill from his corner.

"Any other entrance to the basement except this way— and you could see anyone coming here this way I suppose?"

"Sure I could see 'em. There's no other entrance to the cellar except the coal hole in the sidewalk in front."

"Two big electric lights in front of the building, aren't there?"

"Yes. They go all night."

A slightly puzzled expression crept into the eyes of The Thinking Machine. Hatch knew from the persistency of the questions that he was not satisfied; yet he was not able to fathom or to understand all the queries. In some way they had to do with the possibility of some one having access to the meter.

"Where do you usually sit at night here?" was the next question.

"Over there where Bill's sitting. I always sit there."

The Thinking Machine crossed the room to Bill, a typical, grimy-handed man of his class.

"May I sit there a moment?" he asked.

Bill arose lazily, and The Thinking Machine sank down into the chair. From this point he could see plainly through the opening into the basement proper— there was no door— the gas meter of enormous proportions through which all the gas in the house passed. An electric light in the door made it bright as daylight. The Thinking Machine noted these things, arose, nodded his thanks to the two men and, still with the puzzled expression on his face, led the way upstairs. There the manager was still in his office.

"I presume you examine and know that the time check in the engineer's room is properly punched every half-hour during the night?" he asked.

"Yes. I examine the dial every day— have them here, in fact, each with the date on it."

"May I see them?"

Now the manager was puzzled. He produced the cards, one for each day, and for half an hour The Thinking Machine studied them minutely. At the end of that time, when he arose and Hatch looked at him inquiringly, he saw still the perplexed expression.

After urgent solicitation, the manager admitted them to the apartments of Weldon Henley. Mr. Henley himself had gone to his office in State Street. Here The Thinking Machine did several things which aroused the curiosity of the manager, one of which was to minutely study the gas jets. Then The Thinking Machine opened one of the front windows and glanced out into the street. Below fifteen feet was the sidewalk; above was the solid front of the building, broken only by a flagpole which, properly roped, extended from the hall window of the next floor above

out over the sidewalk a distance of twelve feet or so.

"Ever use that flagpole?" he asked the manager.

"Rarely," said the manager. "On holidays sometimes—Fourth of July and such times. We have a big flag for it."

From the apartments The Thinking Machine led the way to the hall, up the stairs and to the flagpole. Leaning out of this window, he looked down toward the window of the apartments he had just left. Then he inspected the rope of the flagpole, drawing it through his slender hands slowly and carefully. At last he picked off a slender thread of scarlet and examined it.

"Ah," he exclaimed. Then to Hatch: "Let's go, Mr. Hatch. Thank you," this last to the manager, who had been a puzzled witness.

Once on the street, side by side with The Thinking Machine, Hatch was bursting with questions, but he didn't ask them. He knew it would be useless. At last The Thinking Machine broke the silence.

"That girl, Miss Regnier, *was* murdered," he said suddenly, positively. "There have been four attempts to murder Henley."

"How?" asked Hatch, startled.

"By a scheme so simple that neither you nor I nor the police have ever heard of it being employed," was the astonishing reply. "It is perfectly horrible in its simplicity."

"What was it?" Hatch insisted, eagerly.

"It would be futile to discuss that now," was the rejoinder. "There has been murder. We know how. Now the question is—who? What person would have a motive to kill Henley?"

THERE was a pause as they walked on.

"Where are we going?" asked Hatch finally.

"Come up to my place and let's consider this matter a bit further," replied The Thinking Machine.

Not another word was spoken by either until half an hour later, in the small laboratory. For a long time the scientist was thoughtful—deeply thoughtful. Once he took down a volume

from a shelf and Hatch glanced at the title. It was "*Gases: Their Properties*." After awhile he returned this to the shelf and took down another, on which the reporter caught the title, "Anatomy."

"Now, Mr. Hatch," said The Thinking Machine in his perpetually crabbed voice, "we have a most remarkable riddle. It gains this remarkable aspect from its very simplicity. It is not, however, necessary to go into that now. I will make it clear to you when we know the motives.

"As a general rule, the greatest crimes never come to light because the greatest criminals, their perpetrators, are too clever to be caught. Here we have what I might call a great crime committed with a subtle simplicity that is wholly disarming, and a greater crime even than this was planned. This was to murder Weldon Henley. The first thing for you to do is to see Mr. Henley and warn him of his danger. Asphyxiation will not be attempted again, but there is the possibility of poison, a pistol shot, a knife, anything almost. As a matter of fact, he is in great peril.

"Superficially, the death of Miss Regnier, the maid, looks to be suicide. Instead it is the fruition of a plan which has been tried time and again against Henley. There is a possibility that Miss Regnier was not an intentional victim of the plot, but the fact remains that she was murdered. Why? Find the motive for the plot to murder Mr. Henley and you will know why."

The Thinking Machine reached over to the shelf, took a book, looked at it a moment, then went on:

"The first question to determine positively is: Who hated Weldon Henley sufficiently to desire his death? You say he is a successful man in the Street. Therefore there is a possibility that some enemy there is at the bottom of the affair, yet it seems hardly probable. If by his operations Mr. Henley ever happened to wreck another man's fortune find this man and find out all about him. He may be the man. There will be innumerable questions arising from this line of inquiry to a man of your resources. Leave none of them unanswered.

"On the other hand there is Henley's love affair. Had he a rival who might desire his death? Had he any rival? If so, find out all about him. He may be the man who planned all this. Here, too, there will be questions arising which demand answers. Answer then— all of them— fully and clearly before you see me again.

"Was Henley ever a party to a liason of any kind? Find that out, too. A vengeful woman or a discarded sweetheart of a vengeful woman, you know, will go to any extreme. The rumor of his engagement to Miss— Miss—"

"Miss Lipscomb," Hatch supplied.

"The rumor of his engagement to Miss Lipscomb might have caused a woman whom he had once been interested in or who was once interested in him to attempt his life. The subtler murders— that is, the ones which are most attractive as problems— are nearly always the work of a cunning woman. I know nothing about women myself," he hastened to explain; "But Lombroso has taken that attitude. Therefore, see if there is a woman."

Most of these points Hatch had previously seen— seen with the unerring eye of a clever newspaper reporter— yet there were several which had not occurred to him. He nodded his understanding.

"Now the center of the affair, of course," The Thinking Machine continued, "is the apartment house where Henley lives. The person who attempted his life either lives there or has ready access to the place, and frequently spends the night there. This is a vital question for you to answer. I am leaving all this to you because you know better how to do these things than I do. That's all, I think. When these things are all learned come back to me."

The Thinking Machine arose as if the interview were at an end, and Hatch also arose, reluctantly. An idea was beginning to dawn in his mind.

"Does there occur to you that there is any connection

whatever between Henley and Miss Regnier?" he asked.

"It is possible," was the reply. "I had thought of that. If there is a connection it is not apparent yet."

"Then how— how was it she— she was killed, or killed herself, whichever may be true, and—"

"The attempt to kill Henley killed her. That's all I can say now."

"That all?" asked Hatch, after a pause.

"No. Warn Mr. Henley immediately that he is in grave danger. Remember the person who has planned this will probably go to any extreme. I don't know Mr. Henley, of course, but from the fact that he always had a light at night I gather that he is a timid sort of man— not necessarily a coward, but a man lacking in stamina— therefore, one who might better disappear for a week or so until the mystery is cleared up. Above all, impress upon him the importance of the warning."

The Thinking Machine opened his pocketbook and took from it the scarlet thread which he had picked from the rope of the flagpole.

"Here, I believe, is the real clew to the problem," he explained to Hatch. "What does it seem to be?"

Hatch examined it closely.

"I should say a strand from a Turkish bath robe," was his final judgement.

"Possibly. Ask some cloth expert what he makes of it, then if it sounds promising look into it. Find out if by any possibility it can be any part of any garment worn by any person in the apartment house."

"But it's so slight—" Hatch began.

"I know," the other interrupted, tartly. "It's slight, but I believe it is a part of the wearing apparel of the person, man or woman, who has four times attempted to kill Mr. Henley and who did kill the girl. Therefore, it is important."

Hatch looked at him quickly.

"Well, how— in what manner— did it come where you

found it?"

"Simple enough," said the scientist. "It is a wonder that there were not more pieces of it— that's all."

Perplexed by his instructions. But confident of results, Hatch left The Thinking Machine. What possible connection could this tiny bit of scarlet thread, found on a flagpole, have with one shutting off the gas in Henley's rooms? How did anyone go into Henley's rooms to shut off the gas? How was it Miss Regnier was dead? What was the manner of her death?

A cloth expert in a great department store turned his knowledge on the tiny bit of scarlet for the illumination of Hatch, but he could go no further than to say that it seemed to be part of a Turkish bath robe.

"Man or woman's?" asked Hatch.

"The material from which bath robes are made is the same for both men and women," was the reply. "I can say nothing else. Of course there's not enough of it to even guess at the pattern of the robe."

Then Hatch went to the financial district and was ushered into the office of Weldon Henley, a slender, handsome man of thirty-two or three years, pallid of face and nervous in manner. He still showed the effect of the gas poisoning, and there was even a trace of a furtive fear— fear of something, he himself didn't know what— in his actions.

Henley talked freely to the newspaper man of certain things, but of other things he was resentfully reticent. He admitted his engagement to Miss Lipscomb, and finally even admitted that Miss Lipscomb's hand had been sought by another man, Regnault Cabell, formerly of Virginia.

"Could you give me his address?" asked Hatch.

"He lives in the same apartment house with me— two floors above," was the reply.

Hatch was startled; startled more than he would have cared to admit.

"Are you on friendly terms with him?" he asked.

"Certainly," said Henley. "I won't say anything further about this matter. It would be unwise for obvious reasons."

"I suppose you consider that this turning on of the gas was an attempt on your life?"

"I can't suppose anything else."

Hatch studied the pallid face closely as he asked the next question.

"Do you know Miss Regnier was found dead to-day?"

"Dead?" exclaimed the other, and he arose. "Who— what— who is she?"

It seemed a distinct effort for him to regain control of himself.

The reporter detailed then the circumstances of the finding of the girl's body, and the broker listened without comment. From that time forward all the reporter's questions were either parried or else met with a flat refusal to answer. Finally Hatch repeated to him the warning which he had from The Thinking Machine, and feeling that he had accomplished little, went away.

At eight o'clock that night— a night of complete darkness— Henley was found unconscious, lying in a little used walk in the Common. There was a bullet hole through his left shoulder, and he was bleeding profusely. He was removed to the hospital, where he regained consciousness for just a moment.

"Who shot you?" he was asked.

"None of your business," he replied, and lapsed into unconsciousness.

ENTIRELY unaware of this latest attempt on the life of the broker, Hutchinson Hatch steadily pursued his investigations. They finally led him to an intimate friend of Regnault Cabell. The young Southerner had apartments on the fourth floor of the big house off Commonwealth Avenue, directly over those Henley occupied, but two flights higher up. This friend was a figure in the social set of the Back Bay. He talked to Hatch freely of

Cabell.

"He's a good fellow," he explained, "one of the best I ever met, and comes of one of the best families Virginia ever had— a true F. F. V. He's pretty quick tempered and all that, but an excellent chap, and everywhere he has gone here he has made friends."

"He used to be in love with Miss Lipscomb of Virginia, didn't he?" asked Hatch, casually.

"Used to be?" the other repeated with a laugh. "He *is* in love with her. But recently he understood that she was engaged to Weldon Henley, a broker— you may have heard of him?— and that, I suppose, has dampened his ardor considerably. As a matter of fact, Cabell took the thing to heart. He used to know Miss Lipscomb in Virginia— she comes from another famous family there— and he seemed to think he had a prior claim on her."

Hatch heard all these things as any man might listen to gossip, but each additional fact was sinking into his mind, and each additional fact led his suspicions on deeper into the channel they had chosen.

"Cabell is pretty well to do," his informant went on, "not rich as we count riches in the North, but pretty well to do, and I believe he came to Boston because Miss Lipscomb spent so much of her time here. She is a beautiful young woman of twenty-two and extremely popular in the social world everywhere, particularly in Boston. Then there was the additional fact that Henley was here."

"No chance at all for Cabell?" Hatch suggested.

"Not the slightest," was the reply. "Yet despite the heartbreak he had, he was the first to congratulate Henley on winning her love. And he meant it, too."

"What's his attitude toward Henley now?" asked Hatch. His voice was calm, but there was an underlying tense note imperceptible to the other.

"They meet and speak and move in the same set. There's no

love lost on either side, I don't suppose, but there is no trace of any ill feeling."

"Cabell doesn't happen to be a vindictive sort of man?"

"Vindictive?" and the other laughed. "No. He's like a big boy, forgiving, and all that; hot-tempered, though. I could imagine him in a fit of anger making a personal matter of it with Henley, but I don't think he ever did."

The mind of the newspaper man was rapidly focusing on one point; the rush of thoughts, questions and doubts silenced him for a moment. Then:

"How long has Cabell been in Boston?"

"Seven or eight months— that is, he has had apartments here for that long— but he has made several visits South. I suppose it's South. He has a trick of dropping out of sight occasionally. I understand that he intends to go South for good very soon. If I'm not mistaken, he is trying now to rent his suite."

Hatch looked suddenly at his informant; an idea of seeing Cabell and having a legitimate excuse for talking to him had occurred to him.

"I'm looking for a suite," he volunteered at last. "I wonder if you would give me a card of introduction to him? We might get together on it."

Thus it happened that half an hour later, about ten minutes past nine o'clock, Hatch was on his way to the big apartment house. In the office he saw the manager.

"Heard the news?" asked the manager.

"No," Hatch replied. "What is it?"

"Somebody's shot Mr. Henley as he was passing through the Common early to-night."

Hatch whistled in amazement.

"Is he dead?"

"No, but he is unconscious. The hospital doctors say it is a nasty wound, but not necessarily dangerous."

"Who shot him? Do they know?"

"He knows, but he won't say."

Amazed and alarmed by this latest development, an accurate fulfillment of The Thinking Machine's prophecy, Hatch stood thoughtful for a moment, then recovering his composure a little asked for Cabell.

"I don't think there's much chance of seeing him," said the manager. "He's going away on the midnight train— going South, to Virginia."

"Going away to-night?" Hatch gasped.

"Yes; it seems to have been rather a sudden determination. He was talking to me here half an hour or so ago, and said something about going away. While he was here the telephone boy told me that Henley had been shot; they had 'phoned from the hospital to inform us. Then Cabell seemed greatly agitated. He said he was going away to-night, if he could catch the midnight train, and now he's packing."

"I suppose the shooting of Henley upset him considerably?" the reporter suggested.

"Yes, I guess it did," was the reply. "They moved in the same set and belonged to the same clubs."

The manager sent Hatch's card of introduction to Cabell's apartments. Hatch went up and was ushered into a suite identical with that of Henley's in every respect save in minor details of furnishings. Cabell stood in the middle of the floor, with his personal belongings scattered about the room; his valet, evidently a Frenchman, was busily engaged in packing.

Cabell's greeting was perfunctorily cordial; he seemed agitated. His face was flushed and from time to time he ran his fingers through his long, brown hair. He stared at Hatch in a preoccupied fashion, then they fell into conversation about the rent of the apartments.

"I'll take almost anything reasonable," Cabell said hurriedly. "You see, I am going away to-night, rather more suddenly than I had intended, and I am anxious to get the lease off my hands. I pay two hundred dollars a month for these just as they are."

"May I look them over?" asked Hatch.

He passed from the front room into the next. Here, on a bed, was piled a huge lot of clothing, and the valet, with deft fingers, was brushing and folding, preparatory to packing. Cabell was directly behind him.

"Quite comfortable, you see," he explained. "There's room enough if you are alone. Are you?"

"Oh, yes," Hatch replied.

"This other room here," Cabell explained, "is not in very tidy shape now. I have been out of the city for several weeks, and— What's the matter?" he demanded suddenly.

Hatch had turned quickly at the words and stared at him, then recovered himself with a start.

"I beg your pardon," he stammered. "I rather thought I saw you in town here a week or so ago— of course I didn't know you — and I was wondering if I could have been mistaken."

"Must have been," said the other easily. "During the time I was away a Miss —, a friend of my sister's, occupied the suite. I'm afraid some of her things are here. She hasn't sent for them as yet. She occupied this room, I think; when I came back a few days ago she took another place and all her things haven't been removed."

"I see," remarked Hatch, casually. "I don't suppose there's any chance of her returning here unexpectedly if I should happen to take her apartments?"

"Not the slightest. She knows I am back, and thinks I am to remain. She was to send for these things."

Hatch gazed about the room ostentatiously. Across a trunk lay a Turkish bath robe with a scarlet stripe in it. He was anxious to get hold of it, to examine it closely. But he didn't dare to, then. Together they returned to the front room.

"I rather like the place," he said, after a pause, "but the price is—"

"Just a moment," Cabell interrupted. "Jean, before you finish packing that suit case be sure to put my bath robe in it. It's in the far room."

Then one question was settled for Hatch. After a moment the valet returned with the bath robe, which had been in the far room. It was Cabell's bath robe. As Jean passed the reporter an end of the robe caught on a corner of the trunk, and, stopping, the reporter unfastened it. A tiny strand of thread clung to the metal; Hatch detached it and stood idly twirling it in his fingers.

"As I was saying," he resumed, "I rather like the place, but the price is too much. Suppose you leave it in the hands of the manager of the house—"

"I had intended doing that," the Southerner interrupted.

"Well, I'll see him about it later," Hatch added.

With a cordial, albeit pre-occupied, handshake, Cabell ushered him out. Hatch went down in the elevator with a feeling of elation; a feeling that he had accomplished something. The manager was waiting to get into the lift.

"Do you happen to remember the name of the young lady who occupied Mr. Cabell's suite while he was away?" he asked.

"Miss Austin," said the manager, "but she's not young. She was about forty-five years old, I should judge."

"Did Mr. Cabell have his servant Jean with him?"

"Oh, no," said the manager. "The valet gave up the suite to Miss Austin entirely, and until Mr. Cabell returned occupied a room in the quarters we have for our own employees."

"Was Miss Austin ailing in any way?" asked Hatch. "I saw a large number of medicine bottles upstairs."

"I don't know what was the matter with her," replied the manager, with a little puzzled frown. "She certainly was not a woman of sound mental balance— that is, she was eccentric, and all that. I think rather it was an act of charity for Mr. Cabell to let her have the suite in his absence. Certainly we didn't want her."

Hatch passed out and burst in eagerly upon The Thinking Machine in his laboratory.

"Here," he said, and triumphantly he extended the tiny scarlet strand which he had received from The Thinking

Machine, and the other of the identical color which came from Cabell's bath robe. "Is that the same?"

The Thinking Machine placed them under the microscope and examined them immediately. Later he submitted them to a chemical test.

"It is the same," he said, finally.

"Then the mystery is solved," said Hatch, conclusively.

THE Thinking Machine stared steadily into the eager, exultant eyes of the newspaper man until Hatch at last began to fear that he had been precipitate. After awhile, under close scrutiny, the reporter began to feel convinced that he had made a mistake— he didn't quite see where, but it must be there, and the exultant manner passed. The voice of The Thinking Machine was like a cold shower.

"Remember, Mr. Hatch," he said, critically, "that unless every possible question has been considered one cannot boast of a solution. Is there any possible question lingering yet in your mind?"

The reporter silently considered that for a moment, then:

"Well, I have the main facts, anyway. There may be one or two minor questions left, but the principal ones are answered."

"Then tell me, to the minutest detail, what you have learned, what has happened."

Professor Van Dusen sank back in his old, familiar pose in the large arm chair and Hatch related what he had learned and what he surmised. He related, too, the peculiar circumstances surrounding the wounding of Henley, and right on down to the beginning and end of the interview with Cabell in the latter's apartments. The Thinking Machine was silent for a time, then there came a host of questions.

"Do you know where the woman— Miss Austin— is now?" was the first.

"No," Hatch had to admit.

"Or her precise mental condition?"

"No."

"Or her exact relationship to Cabell?"

"No."

"Do you know, then, what the valet, Jean, knows of the affair?"

"No, not that," said the reporter, and his face flushed under the close questioning. "He was out of the suite every night."

"Therefore might have been the very one who turned on the gas," the other put in testily.

"So far as I can learn, nobody could have gone into that room and turned on the gas," said the reporter, somewhat aggressively. "Henley barred the doors and windows and kept watch, night after night."

"Yet the moment he was exhausted and fell asleep the gas was turned on to kill him," said The Thinking Machine; "thus we see that *he* was watched more closely than he watched."

"I see what you mean now," said Hatch, after a long pause.

"I should like to know what Henley and Cabell and the valet knew of the girl who was found dead," The Thinking Machine suggested. "Further, I should like to know if there was a good-sized mirror— not one set in a bureau or dresser— either in Henley's room or the apartments where the girl was found. Find out this for me and— never mind. I'll go with you."

The scientist left the room. When he returned he wore his coat and hat. Hatch arose mechanically to follow. For a block or more they walked along, neither speaking. The Thinking Machine was the first to break the silence:

"You believe Cabell is the man who attempted to kill Henley?"

"Frankly, yes," replied the newspaper man.

"Why?"

"Because he had the motive— disappointed love."

"How?"

"I don't know," Hatch confessed. "The doors of the Henley suite were closed. I don't see how anybody passed them."

"And the girl? Who killed her? How? Why?"

Disconsolately Hatch shook his head as he walked on. The Thinking Machine interpreted his silence aright.

"Don't jump at conclusions," he advised sharply. "You were confident Cabell was to blame for this— and he might have been, I don't know yet— but you can suggest nothing to show how he did it. I have told you before that imagination is half of logic."

At last the lights of the big apartment house where Henley lived came in sight. Hatch shrugged his shoulders. He had grave doubts— based on what he knew— whether The Thinking Machine would be able to see Cabell. It was nearly eleven o'clock and Cabell was to leave for the South at midnight.

"Is Mr. Cabell here?" asked the scientist of the elevator boy.

"Yes, just about to go, though. He won't see anyone."

"Hand him this note," instructed The Thinking Machine, and he scribbled something on a piece of paper. "He'll see us."

The boy took the paper and the elevator shot up to the fourth floor. After awhile he returned.

"He'll see you," he said.

"Is he unpacking?"

"After he read your note twice he told his valet to unpack," the boy replied.

"Ah, I thought so," said The Thinking Machine.

With Hatch, mystified and puzzled, following, The Thinking Machine entered the elevator to step out a second or so later on the fourth floor. As they left the car they saw the door of Cabell's apartment standing open; Cabell was in the door. Hatch traced a glimmer of anxiety in the eyes of the young man.

"Professor Van Dusen?" Cabell inquired.

"Yes," said the scientist. "It was of the utmost importance that I should see you, otherwise I should not have come at this time of night."

With a wave of his hand Cabell passed that detail.

"I was anxious to get away at midnight," he explained, "but,

of course, now I shan't go, in view of your note. I have ordered my valet to unpack my things, at least until to-morrow."

The reporter and the scientist passed into the luxuriously furnished apartments. Jean, the valet, was bending over a suit case as they entered, removing some things he had been carefully placing there. He didn't look back or pay the least attention to the visitors.

"This is your valet?" asked The Thinking Machine.

"Yes," said the young man.

"French, isn't he?"

"Yes."

"Speak English at all?"

"Very badly," said Cabell. "I use French when I talk to him."

"Does he know that you are accused of murder?" asked The Thinking Machine, in a quiet, conversational tone.

The effect of the remark on Cabell was startling. He staggered back a step or so as if he had been struck in the face, and a crimson flush overspread his brow. Jean, the valet, straightened up suddenly and looked around. There was a queer expression, too, in his eyes; an expression which Hatch could not fathom.

"Murder?" gasped Cabell, at last.

"Yes, he speaks English all right," remarked The Thinking Machine. "Now, Mr. Cabell, will you please tell me just who Miss Austin is, and where she is, and her mental condition? Believe me, it may save you a great deal of trouble. What I said in the note is not exaggerated."

The young man turned suddenly and began to pace back and forth across the room. After a few minutes he paused before The Thinking Machine, who stood impatiently waiting for an answer.

"I'll tell you, yes," said Cabell, firmly. "Miss Austin is a middle-aged woman whom my sister befriended several times—was, in fact, my sister's governess when she was a child. Of late years she has not been wholly right mentally, and has suffered a

great deal of privation. I had about concluded arrangements to put her in a private sanitarium. I permitted her to remain in these rooms in my absence, South. I did not take Jean— he lived in the quarters of the other employees of the place, and gave the apartment entirely to Miss Austin. It was simply an act of charity."

"What was the cause of your sudden determination to go South to-night?" asked the scientist.

"I won't answer that question," was the sullen reply.

There was a long, tense silence. Jean, the valet, came and went several times.

"How long has Miss Austin known Mr. Henley?"

"Presumably since she has been in these apartments," was the reply.

"Are you sure *you* are not Miss Austin?" demanded the scientist.

The question was almost staggering, not only to Cabell, but to Hatch. Suddenly, with flaming face, the young Southerner leaped forward as if to strike down The Thinking Machine.

"That won't do any good," said the scientist, coldly. "Are you sure you are not Miss Austin?" he repeated.

"Certainly I am not Miss Austin," responded Cabell, fiercely.

"Have you a mirror in these apartments about twelve inches by twelve inches?" asked The Thinking Machine, irrelevantly.

"I— I don't know," stammered the young man. "I— have we, Jean?"

"*Oui*," replied the valet.

"Yes," snapped The Thinking Machine. "Talk English, please. May I see it?"

The valet, without a word but with a sullen glance at the questioner, turned and left the room. He returned after a moment with the mirror. The Thinking Machine carefully examined the frame, top and bottom and on both sides. At last he looked up; again the valet was bending over a suit case.

"Do you use gas in these apartments?" the scientist asked

suddenly.

"No," was the bewildered response. "What is all this, anyway?"

Without answering, The Thinking Machine drew a chair up under the chandelier where the gas and electric fixtures were and began to finger the gas tips. After awhile he climbed down and passed into the next room, with Hatch and Cabell, both hopelessly mystified, following. There the scientist went through the same process of fingering the gas jets. Finally, one of the gas tips came out in his hand.

"Ah," he exclaimed, suddenly, and Hatch knew the note of triumph in it. The jet from which the tip came was just on a level with his shoulder, set between a dressing table and a window. He leaned over and squinted at the gas pipe closely. Then he returned to the room where the valet was.

"Now, Jean," he began, in an even, calm voice, "please tell me if you did or did not kill Miss Regnier purposely?"

"I don't know what you mean," said the servant sullenly, angrily, as he turned on the scientist.

"You speak very good English now," was The Thinking Machine's terse comment. "Mr. Hatch, lock the door and use this 'phone to call the police."

Hatch turned to do as he was bid and saw a flash of steel in young Cabell's hand, which was drawn suddenly from a hip pocket. It was a revolver. The weapon glittered in the light, and Hatch flung himself forward. There was a sharp report, and a bullet was buried in the floor.

THEN came a fierce, hard fight for possession of the revolver. It ended with the weapon in Hatch's hand, and both he and Cabell blowing from the effort they had expended. Jean, the valet, had turned at the sound of the shot and started toward the door leading into the hall. The Thinking Machine had stepped in front of him, and now stood there with his back to the door. Physically he would have been a child in the hands of

the valet, yet there was a look in his eyes which stopped him.

"Now, Mr. Hatch," said the scientist quietly, a touch of irony in his voice, "hand me the revolver, then 'phone for Detective Mallory to come here immediately. Tell him we have a murderer — and if he can't come at once get some other detective whom you know."

"Murderer!" gasped Cabell.

Uncontrollable rage was blazing in the eyes of the valet, and he made as if to throw The Thinking Machine aside, despite the revolver, when Hatch was at the telephone. As Jean started forward, however, Cabell stopped him with a quick, stern gesture. Suddenly the young Southerner turned on The Thinking Machine; but it was with a question.

"What does it all mean?" he asked, bewildered.

"It means that that man there," and The Thinking Machine indicated the valet by a nod of his head, "is a murderer— that he killed Louise Regnier; that he shot Welden Henley on Boston Common, and that, with the aid of Miss Regnier, he had four times previously attempted to kill Mr. Henley. Is he coming, Mr. Hatch?"

"Yes," was the reply. "He says he'll be here directly."

"Do you deny it?" demanded The Thinking Machine of the valet.

"I've done nothing," said the valet sullenly. "I'm going out of here."

Like an infuriated animal he rushed forward. Hatch and Cabell seized him and bore him to the floor. There, after a frantic struggle, he was bound and the other three men sat down to wait for Detective Mallory. Cabell sank back in his chair with a perplexed frown on his face. From time to time he glanced at Jean. The flush of anger which had been on the valet's face was gone now; instead there was the pallor of fear.

"Won't you tell us?" pleaded Cabell impatiently.

"When Detective Mallory comes and takes his prisoner," said The Thinking Machine.

Ten minutes later they heard a quick step in the hall outside and Hatch opened the door. Detective Mallory entered and looked from one to another inquiringly.

"That's your prisoner, Mr. Mallory," said the scientist, coldly. "I charge him with the murder of Miss Regnier, whom you were so confident committed suicide; I charge him with five attempts on the life of Weldon Henley, four times by gas poisoning, in which Miss Regnier was his accomplice, and once by shooting. He is the man who shot Mr. Henley."

The Thinking Machine arose and walked over to the prostate man, handing the revolver to Hatch. He glared down at Jean fiercely.

"Will you tell how you did it or shall I?" he demanded.

His answer was a sullen, defiant glare. He turned and picked up the square mirror which the valet had produced previously.

"That's where the screw was, isn't it?" he asked, as he indicated a small hole in the frame of the mirror. Jean stared at it and his head sank forward hopelessly. "And this is the bath robe you wore, isn't it?" he demanded again, and from the suit case he pulled out the garment with the scarlet stripe.

"I guess you got me all right," was the sullen reply.

"It might be better for you if you told the story then?" suggested The Thinking Machine.

"You know so much about it, tell it yourself."

"Very well," was the calm rejoinder. "I will. If I make any mistake you will correct me."

For a long time no one spoke. The Thinking Machine had dropped back into a chair and was staring through his thick glasses at the ceiling; his finger tips were pressed tightly together. At last he began:

"There are certain trivial gaps which only the imagination can supply until the matter is gone into more fully. I should have supplied these myself, but the arrest of this man, Jean, was precipitated by the attempted hurried departure of Mr. Cabell for the South to-night, and I did not have time to go into the

case to the fullest extent.

"Thus, we begin with the fact that there were several clever attempts made to murder Mr. Henley. This was by putting out the gas which he habitually left burning in his room. It happened four times in all; thus proving that it was an attempt to kill him. If it had been only once it might have been accident, even twice it might have been accident, but the same accident does not happen four times at the same time of night.

"Mr. Henley finally grew to regard the strange extinguishing of the gas as an effort to kill him, and carefully locked and barred his door and windows each night. He believed that some one came into his apartments and put out the light, leaving the gas flow. This, of course, was not true. Yet the gas was put out. How? My first idea, a natural one, was that it was turned off for an instant at the meter, when the light would go out, then turned on again. This, I convinced myself, was not true. Therefore still the question— how?

"It is a fact— I don't know how widely known it is— but it is a fact that every gas light in this house might be extinguished at the same time from this room without leaving it. How? Simply by removing that gas jet tip and blowing into the gas pipe. It would not leave a jet in the building burning. It is due to the fact that the lung power is greater than the pressure of the gas in the pipes, and forces it out.

"Thus we have the method employed to extinguish the light in Mr. Henley's rooms, and all the barred and locked doors and windows would not stop it. At the same time it threatened the life of every other person in the house— that is, every other person who used gas. It was probably for this reason that the attempt was always made late at night, I should say three or four o'clock. That's when it was done, isn't it?" he asked suddenly of the valet.

Staring at The Thinking Machine in open-mouthed astonishment the valet nodded his acquiescence before he was fully aware of it.

"Yes, that's right," The Thinking Machine resumed complacently. "This was easily found out— comparatively. The next question was how was a watch kept on Mr. Henley? It would have done no good to extinguish the gas before he was asleep, or to have turned it on when he was not in his rooms. It might have led to a speedy discovery of just how the thing was done.

"There's a spring lock on the door of Mr. Henley's apartment. Therefore it would have been impossible for anyone to peep through the keyhole. There are no cracks through which one might see. How was this watch kept? How was the plotter to satisfy himself positively of the time when Mr. Henley was asleep? How was it that the gas was put out at no time of the score or more nights Mr. Henley himself kept watch? Obviously he was watched through a window.

"No one could climb out on the window ledge and look into Mr. Henley's apartments. No one could see into that apartment from the street— that is, could see whether Mr. Henley was asleep or even in bed. They could see the light. Watch was kept with the aid offered by the flagpole, supplemented with a mirror— this mirror. A screw was driven into the frame— it has been removed now— it was swung on the flagpole rope and pulled out to the end of the pole, facing the building. To a man standing in the hall window of the third floor it offered precisely the angle necessary to reflect the interior of Mr. Henley's suite, possibly even showed him in bed through a narrow opening in the curtain. There is no shade on the windows of that suite; heavy curtains instead. Is that right?"

Again the prisoner was surprised into a mute acquiescence.

"I saw the possibility of these things, and I saw, too, that at three or four o'clock in the morning it would be perfectly possible for a person to move about the upper halls of this house without being seen. If he wore a heavy bath robe, with a hood, say, no one would recognize him even if he were seen, and besides the garb would not cause suspicion. This bath robe

has a hood.

"Now, in working the mirror back and forth on the flagpole at night a tiny scarlet thread was pulled out of the robe and clung to the rope. I found this thread; later Mr. Hatch found an identical thread in these apartments. Both came from that bath robe. Plain logic shows that the person who blew down the gas pipes worked the mirror trick; the person who worked the mirror trick left the thread; the thread comes back to the bath robe— that bath robe there," he pointed dramatically. "Thus the person who desired Henley's death was in these apartments, or had easy access to them."

He paused for a moment and there was a tense silence. A great light was coming to Hatch, slowly but surely. The brain that had followed all this was unlimited in possibilities.

"Even before we traced the origin of the crime to this room," went on the scientist, quietly now, "attention had been attracted here, particularly to you, Mr. Cabell. It was through the love affair, of which Miss Lipscomb was the center. Mr. Hatch learned that you and Henley had been rivals for her hand. It was that, even before this scarlet thread was found, which indicated that you might have some knowledge of the affair, directly or indirectly.

"You are not a malicious or revengeful man, Mr. Cabell. But you are hot-tempered— extremely so. You demonstrated that just now, when, angry and not understanding, but feeling that your honor was at stake, you shot a hole in the floor."

"What?" asked Detective Mallory.

"A little accident," explained The Thinking Machine quickly. "Not being a malicious or revengeful man, you are not the man to deliberately go ahead and make elaborate plans for the murder of Henley. In a moment of passion you might have killed him— but never deliberately as the result of premeditation. Besides you were out of town. Who was then in these apartments? Who had access to these apartments? Who might have used your bath robe? Your valet, possibly Miss Austin.

Which? Now, let's see how we reached this conclusion which led to the valet.

"Miss Regnier was found dead. It was not suicide. How did I know? Because she had been reading with the gas light at its full. If she had been reading by the gas light, how was it then that it went out and suffocated her before she could arise and shut it off? Obviously she must have fallen asleep over her book and left the light burning.

"If she was in this plot to kill Henley, why did she light the jet in her room? There might have been some defect in the electric bulb in her room which she had just discovered. Therefore she lighted the gas, intending to extinguish it— turn it off entirely— later. But she fell asleep. Therefore when the valet here blew into the pipe, intending to kill Mr. Henley, he unwittingly killed the woman he loved— Miss Regnier. It was perfectly possible, meanwhile, that she did not know of the attempt to be made that particular night, although she had participated in the others, knowing that Henley had night after night sat up to watch the light in his rooms.

"The facts, as I knew them, showed no connection between Miss Regnier and this man at that time— nor any connection between Miss Regnier and Henley. It might have been that the person who blew the gas out of the pipe from these rooms knew nothing whatever of Miss Regnier, just as he didn't know who else he might have killed in the building.

"But I had her death and the manner of it. I had eliminated you, Mr. Cabell. Therefore there remained Miss Austin and the valet. Miss Austin was eccentric— insane, if you will. Would she have any motive for killing Henley? I could imagine none. Love? Probably not. Money? They had nothing in common on that ground. What? Nothing that I could see. Therefore, for the moment, I passed Miss Austin by, after asking you, Mr. Cabell, if you were Miss Austin.

"What remained? The valet. Motive? Several possible ones, one or two probable. He is French, or says he is. Miss Regnier is

French. Therefore I had arrived at the conclusion that they knew each other as people of the same nationality will in a house of this sort. And remember, I had passed by Mr. Cabell and Miss Austin, so the valet was the only one left; he could use the bath robe.

"Well, the motive. Frankly that was the only difficult point in the entire problem— difficult because there were so many possibilities. And each possibility that suggested itself suggested also a woman. Jealousy? There must be a woman. Hate? Probably a woman. Attempted extortion? With the aid of a woman. No other motive which would lead to so elaborate a plot of murder would come forward. Who was the woman? Miss Regnier.

"Did Miss Regnier know Henley? Mr. Hatch had reason to believe he knew her because of his actions when informed of her death. Knew her how? People of such relatively different planes of life can know each other— or do know each other— only on one plane. Henley is a typical young man, fast, I dare say, and liberal. Perhaps, then, there had been a liason. When I saw this possibility I had my motives— all of them— jealousy, hate and possibly attempted extortion as well.

"What was more possible than Mr. Henley and Miss Regnier had been acquainted? All liasons are secret ones. Suppose she had been cast off because of the engagement to a young woman of Henley's own level? Suppose she had confided in the valet here? Do you see? Motives enough for any crime, however diabolical. The attempts on Henley's life possibly followed an attempted extortion of money. The shot which wounded Henley was fired by this man, Jean. Why? Because the woman who had cause to hate Henley was dead. Then the man? He was alive and vindictive. Henley knew who shot him, and knew why, but he'll never say it publicly. He can't afford to. It would ruin him. I think probably that's all. Do you want to add anything?" he asked the valet.

"No," was the fierce reply. "I'm sorry I didn't kill him, that's

all. It was all about as you said, though God knows how you found it out," he added, desperately.

"Are you a Frenchman?"

"I was born in New York, but lived in France for eleven years. I first knew Louise there."

Silence fell upon the little group. Then Hatch asked a question:

"You told me, Professor, that there would be no other attempt to kill Henley by extinguishing the gas. How did you know that?"

"Because one person— the wrong person— had been killed that way," was the reply. "For this reason it was hardly likely that another attempt of that sort would be made. You had no intention of killing Louise Regnier, had you, Jean?"

"No, God help me, no."

"It was all done in these apartments," The Thinking Machine added, turning to Cabell, "at the gas jet from which I took the tip. It had been only loosely replaced and the metal was tarnished where the lips had dampened it."

"It must take great lung power to do a thing like that," remarked Detective Mallory.

"You would be amazed to know how easily it is done," said the scientist. "Try it some time."

The Thinking Machine arose and picked up his hat; Hatch did the same. Then the reporter turned to Cabell.

"Would you mind telling me why you were so anxious to get away to-night?" he asked.

"Well, no," Cabell explained, and there was a rush of red to his face. "It's because I received a telegram from Virginia— Miss Lipscomb, in fact. Some of Henley's past had come to her knowledge and the telegram told me that the engagement was broken. On top of this came the information that Henley had been shot and— I was considerably agitated."

The Thinking Machine and Hatch were walking along the street.

"What did you write in the note you sent to Cabell that made him start to unpack?" asked the reporter, curiously.

"There are some things that it wouldn't be well for everyone to know," was the enigmatic response. "Perhaps it would be just as well for you to overlook this little omission."

"Of course, of course," replied the reporter, wonderingly.

8. The Problem of the Organ Grinder

HHUTCHINSON HATCH, reporter, was standing in a corner with both hands in his coat pockets. Just three inches to the left of his second waistcoat button was the point of a stiletto, and he glanced at it from time to time in frank uneasiness, then his eyes returned to the flushed, tense face of the girl who held it. She was Italian. Her eyes were splendidly black, and there was a gleam in them that was anything but reassuring. Her scarlet lips were parted slightly, disclosing small, regular, white teeth clenched tightly together. A brilliant multicolored headdress partially confined her hair and rippled down about her shoulders. Her skirt was barely to her ankles.

"I feel like the third act of an Italian comic opera," Hatch thought grimly. Then aloud, "What is all this?"

"You must be silent, *signor!*" warned the young woman in excellent English.

"I am going to be," Hatch explained; "but still I should like to —"

"You must be silent, *signor!*" the girl repeated. "No, don't take your hands from your pockets!"

"But look here!"

The stiletto point was pressed in until he felt it against his flesh. He winced involuntarily, but wisely held his tongue. It was a time to stand perfectly still and wait. He had come to the tenement in the course of his professional duties, and had rapped on this door to inquire in which apartment a certain

family lived. The door had been opened by the young woman—and now this! He didn't understand it; he didn't even make a pretense of conjecturing what it meant. He just kept on standing still.

From outside came the varied noises of a busy city. Inside the gloom grew about him, and gradually the rigid, motionless figure of the girl became a shadowy silhouette. Then an electric arc light outside, which happened to be on a level with a window, spluttered and flashed into brilliance almost blinding him. Through the murk of the room only their motionless figures were visible.

After awhile the reporter heard vaguely a stealthy shuffle of feet as if some one was passing along the hall. Then the door leading from the hall into the next room opened and closed softly. The girl prodded him with the stiletto point to remind him to be silent. It was a needless warning, because now Hatch dimly foresaw some grave and imminent danger to himself in the presence of this third person, whoever it might be. Unconsciously he was concentrating all his forces, mental and physical, for— for something he didn't know what.

The shuffling feet were now in the next room. He heard them moving about as if coming toward the connecting door. Then a hand was laid on the knob, the lock rattled a little, and the door was softly closed. Hatch took a deep breath of relief— whoever this third person might be, he evidently had no business in the room with them just at that moment.

With straining ears and tense nerves the reporter listened, and after awhile came a muffled chatter as of some one talking rapidly and incoherently. Then he heard a man's voice, pleasant neither in tone nor in the expletives used, and several times he heard the chatter— quick, excited, incoherent. At last the man broke out into a string of profanity, objurgations. The chatter rose angrily, and burst finally into a strangling, guttural scream of anguish.

With a chilly creepiness along his spine and nerves strained

to the breaking point, Hatch started forward involuntarily. The stiletto point at his breast stopped him. He glared at the rigid figure of the girl and choked back, with an effort, an outburst of emotion. His utter helplessness overwhelmed him.

"Some one is being killed in there!" he protested desperately between gritting teeth.

"Sh-h!" warned the girl.

From the next room came the shuffling of feet again, then a soft thump thrice repeated, and a faint gurgling cry. Hatch shivered a little; the girl was rigid as marble.

"I guess that fixed you!" Hatch heard a man say.

There was silence for a minute or so. The feet moved stealthily again, and the door leading from the other room into the hall opened and closed. The footsteps moved rapidly along, then apparently precaution was forgotten, for they clattered down the steps and were gone.

Suddenly the girl straightened up. "You will remain here, *signor*," she said, "until I am out of the house? You will raise no alarm for at least five minutes? Believe me, if you do, it will be worse for you; for sometime, somewhere, you will have occasion to regret it! You promise?"

Hatch would not make himself believe that he had the slightest choice in the matter. "I promise, of course," he said.

She bowed a little, half mockingly, flung open the door, and ran out. Hatch heard the swishing of her skirts as she sped down the stairs, then he brought himself together with a huge sigh and a nervous jerking of his limbs.

He strode across the room twice to regain possession of jumping nerves, then paused and lighted a cigarette. What was in the next room? He didn't know. He wanted to know, and yet there was an intangible fear which clung to him and held him back when he started for the door. At last he mastered this absurd weakness, and flung the door open wide, and walked in. At first he saw nothing, and he had expected to see every evidence of a brutal crime. Then in a far corner he noticed what

seemed to be a bundle of rags which had been thrown there carelessly. He strode over boldly and poked it with his foot, stooping to examine it.

What he saw brought an exclamation from him; but it was rather of astonishment than of horror. The thing he had found was the body of a monkey. The rags were the tawdry clothing in which organ grinders attire their apish companions. There was a little cap, a coat, and trousers.

"Well! What in the deuce—" exclaimed the reporter. He dropped on his knees beside the tiny body. There were three stab wounds in it— one in the throat and two in the breast. The body was still warm.

"BUT WHY," protested Hatch, "should anyone, man or woman, murder a monkey?"

Professor Augustus S. F. X. Van Dusen— The Thinking Machine— didn't hazard a conjecture. "Are you sure it was a monkey that was murdered?" he asked instead. "I mean are you sure that only a monkey was murdered?"

"I am sure," he responded emphatically, "that the monkey was killed while I listened, and certainly there was nothing else that I could find or that I heard to indicate anything beyond that."

"Did you search the place?" queried the scientist.

"Yes."

"Find anything?"

"No, nothing."

"Did you happen to notice, Mr. Hatch, if the monkey's clothing had pockets?"

"There were no pockets. I looked for them."

The Thinking Machine lay back in his chair, steadily squinting upward for several minutes, without speaking. Then: "I can comprehend readily why the monkey should have been killed as it was. Any one of half a dozen hypotheses would explain that. But if the monkey didn't have a pocket somewhere in its

clothing, then I don't see so readily why— Oh, of course— must have been bigger than I thought," he mused.

"What?" inquired Hatch.

"Are you sure, Mr. Hatch, that there had been nothing sewn to the clothing of the monkey?" asked The Thinking Machine, without heeding the question— "that nothing had been ripped loose from the clothing?"

"I can't say as to that," the reporter replied.

"Where is the monkey now?"

"Still there in the room, I suppose. I came straight from there to you here. Of course, my being held up that way wasn't of any actual consequence— it was merely incidental, I thought, to the other."

The Thinking Machine nodded. "Yes," he agreed. "I presume that was merely because you happened to arrive at an inopportune moment, and that method was employed to keep you out of the way until whatever was to be done was done."

The Thinking Machine and the reporter went out together. It was a few minutes past nine o'clock when they reached the tenement. It was dirty and illy lighted, and boldly faced a street which was a center of the Italian colony. Hatch led the way in and up the stairs to the room where he had left the monkey. The little body still lay huddled up, inert, as he had left it.

By the light of an electric bulb The Thinking Machine examined it closely. Twice Hatch saw him shake his head. When The Thinking Machine arose from the floor his face was inscrutable. He led Hatch around that room and the next and through a third which connected, and then they went out.

"It is an extraordinary case, Mr. Hatch," he explained as they went on. "There are now three explanations of the affair, either one of which would fit in with every fact that we know. But instead of helping us, these three possibilities make it necessary for us to know more. Two of them must be removed— the remainder will be correct as surely as two and two make four, not sometimes but all the time."

Hatch waited patiently.

"The real problem here," the scientist continued after a moment, "is the identity of the person who owned the monkey. When we get that, we get a starting point."

"That would not seem difficult," Hatch suggested. "It is extremely improbable that anyone knows of the affair except the persons who were responsible for it, perhaps the owner of the monkey and ourselves. An advertisement in the newspapers would bring the owner quickly enough."

"There is always the possibility, Mr. Hatch, that the owner is the man who killed the monkey," replied the scientist. "In that event the advertisement would do no good; and there is a question if it would be advisable to let those persons who are responsible for the animal's death know that the matter is being investigated. This is presuming, of course, that some one besides the owner killed it. It will be just as well to let the young woman who held you prisoner believe that the affair is at an end. Any other course just now might indirectly endanger the life of some one who has not yet appeared in the case."

"I am going home now, Mr. Hatch," concluded the scientist, "and it is possible that within two or three hours I may devise a plan by which we can find the monkey's owner. If so, I shall communicate with you."

"You can reach me at police headquarters until about midnight," replied the reporter. "I am going up there on another affair."

It was about a quarter past eleven o'clock that night when Hatch scurried away to a telephone and eagerly cried to The Thinking Machine, "I know the man who owned the monkey!"

Ten minutes later he was in the scientist's little reception room. "The man who owned the monkey," he said, "is named Giacomo Bardetto. He is an organ grinder. He was found unconscious in an area way at the other end of the city to-night at ten o'clock. He had been struck down from behind, his organ smashed, his pockets rifled, and no one knows how long he had

been unconscious when found. He is now in a hospital, still unconscious. The police know nothing whatever about the monkey incident; but I surmise that the dead monkey was Bardetto's. You might have noticed that a short chain was attached to the monkey's clothing? The other end of that chain is fastened to the hand organ."

"How was Bardetto identified?" asked The Thinking Machine.

"By his organ grinder's license, which was fastened to the inside of a flap on the instrument."

"His home?"

"Here is the address," and the reporter produced a card on which he had jotted down the street and number.

The Thinking Machine studied the card for a moment, then glanced at his watch. It was five minutes of midnight.

"Detective Mallory sent a man there to notify his family of Bardetto's condition," Hatch went on to explain. "But it seems that he has no family or relatives. Mallory, of course, has nothing to lead him to think that the case is anything more than ordinary assault and robbery."

"Let's go see what the case really is, Mr. Hatch," said the scientist. "I know in a general way what it is, of course; but it possesses many singular features."

Half an hour later they stood in the room where Bardetto lived. This too was in a tenement and poorly furnished. It seemed to be a combination of bed room, living room, dining room, and kitchen. The Thinking Machine began a minute search of the room. Bureau drawers were pulled out, the bed denuded, articles of furniture moved, and even the oil stove turned upside down. Hatch stood looking on without the slightest idea of the object of the search.

"What are you looking for?" he asked at last.

"I don't know," The Thinking Machine confessed frankly.

"The ultimate purpose is to find out why the monkey was killed. I have an idea that there is something here that will answer the

question.”

And the search continued. Every conceivable point seemed to have been gone over; and Hatch was marveling at the thoroughness of it, when The Thinking Machine dropped on his knees on the floor and wriggled along, minutely inspecting the baseboard at every joint. One of these sounded unlike the others when he rapped it, and he began work at it. Finally the board responded to the prying of a knife and fell out. The Thinking Machine took one look.

“Dear me! Dear me!” he exclaimed in a tone which nearly indicated astonishment.

He plunged both hands into the narrow aperture and tumbled out on the floor package after package of money—crackling, rustling bills— unfolded and with the sheen of newness still on them. There was money and money! Hatch stared with bulging eyes.

“Now I know why the monkey was killed,” remarked The Thinking Machine conclusively. “This is what I was looking for, but I didn’t know it.”

“Great Scott! Whose is it? How much is there? Where did it come from?”

Hatch flung the questions at the diminutive scientist still crouching on the floor. The Thinking Machine glanced at him in petulant reproof at an excitement which the reporter’s voice betrayed.

“Whose is it?” he repeated. “Bardetto’s. How much is there? I should say from fifty to seventy-five thousand dollars. It’s all in two and five dollar bills. Where did it come from? I should say that it came from the—”

The door behind them squeaked a little as it swung on its hinges. Hatch turned quickly. It was the girl. For an instant they stood motionless, staring at each other in mutual astonishment. The Thinking Machine didn’t even glance around.

“Put that woman under arrest, Mr. Hatch,” he commanded irritably, “and close the door! She has no revolver, but look out

for a knife.”

Hatch pushed the door to with his foot. “Now, *signorina*,” he remarked grimly, “I shall have to ask you to remain silent.”

The girl was evidently not one of the screaming kind, but her right hand disappeared into the folds of her dress as she faced him boldly. It was a sinister movement. Hatch smiled a little, and his own right hand went back to his hip. Perhaps he smiled because he had never been guilty of carrying a revolver in all his life.

“Don’t do that, *signorina*!” he advised pleasantly. “Don’t make any mistake with that knife! I have never drawn a revolver on a woman, and I don’t want to now; but believe me, you must take out the knife and drop it. You must, I say!” and his right hand moved forward the fraction of a foot threateningly.

Staring straight into his eyes without a tremor in her own, the girl produced the stiletto, and it clattered on the floor. Hatch kicked it beyond her reach. The Thinking Machine finally arose from his place on the floor.

“Mr. Hatch,” he commanded sharply, “take the young woman over in the far corner there and let her sit down. Just so surely as she makes any noise, however slight, it will cost one of us, perhaps even both of us, our lives. Remember that and act accordingly. Don’t hesitate an instant because she happens to be a woman. I shall be able alone to take care of whoever else may happen to enter.”

The tone was one which was utterly strange to the reporter, coming as it did from this crabbed, irritable little scientist whom he had known so long. It was chilling by reason of its very gravity, and for the first time in his life Hatch felt that his companion considered a situation imminently dangerous. All of which convinced him that if he had ever obeyed orders now was the time. The girl’s face was white, but there was a slight, mocking smile wavering about her lips.

The Thinking Machine turned the gas half down, then went over and sat near the door. Silently they waited, five, ten, fifteen

minutes; then they heard a quick, muffled tread moving along the hall toward the door.

"If she moves or makes the slightest sound, shoot!" directed The Thinking Machine in a low voice.

He arose and faced the door. Some one fumbled at the lock, and the door swung inward. The figure of a man appeared.

"Hands up!" commanded The Thinking Machine abruptly, and he thrust a glittering something beneath the intruder's nose. The man's hand went up. The Thinking Machine leaned forward suddenly and deftly abstracted a revolver from the stranger's right hand pocket. He gave a sigh of infinite relief as he straightened up, holding the captured revolver in hand.

"It's all right, Mr. Hatch," he said to the reporter, who had scarce dared remove his eyes from his prisoner. Then to the man and woman, "It may interest you to know that neither of us had a weapon of either sort until I got this revolver. I stopped you," he told the man, "with a clinical thermometer, and Mr. Hatch captured you," he told the woman, "at the point, we may say, of his pipe case."

THEY WERE all at police headquarters— The Thinking Machine, Hatch, and the two prisoners. Piled up on Detective Mallory's desk were the packages of bills which the scientist had discovered. They were counterfeit, all of two and five dollar denominations, and excellent in texture, engraving, and printing. But the numbers were at fault; all the twos were the same, and all the fives were the same.

For the enlightenment of Detective Mallory, The Thinking Machine and Hatch repeated in detail those incidents leading up to the capture of the man and the woman.

"There is really little to explain," said the scientist at the end; "although the problem, while it lasted, was one of the most complex and intricate I have ever met. We may dismiss Mr. Hatch's first adventure as of no consequence. It just happened that he went to the house on a different matter, and fortunately

was dragged into this affair. Now, I have no doubt that the prisoners here will give us the location of the counterfeiter's plant?"

He glanced at the man and woman. They looked at each other, but remained silent.

"I have never met a counterfeiter yet who would give up the hiding place of his plates," remarked Detective Mallory.

"But these are not counterfeiters, Mr. Mallory," said The Thinking Machine; "they are merely thieves. Bardetto, the man who was found unconscious, who owned the monkey, is one of the counterfeiters. Let me explain briefly how every fact considered clears up the problem. First, the inevitable logic of the affair shows us that these two prisoners learned in some manner unknown that Bardetto was either a principal or an agent for some big counterfeiting scheme; for we can't believe that they thought this was real money. But instead of reporting the matter to the police they resolved to benefit by it themselves. How? By stealing the bills from Bardetto, this to be followed, perhaps, by immediate flight to Italy. They are both Italians, and you may know that a clever American counterfeit abroad is almost as good as the genuine; and for that matter these bills would pass in circulation readily here.

"Granting, then, that they did know of Bardetto's part in the scheme, we can readily imagine that they learned that Bardetto had a quantity of the money in his possession; so the robbery was planned. The man here did the work, and was to meet the woman in the vacant rooms of the tenement where Mr. Hatch saw her.

"Well, Bardetto was attacked and his pockets rifled. Evidently our prisoner did not find what he sought, and yet he knew that the money had passed into Bardetto's possession, and perhaps too that he had had no opportunity of getting rid of it. Was it in the organ? He smashed it to see. It wasn't. Then, the monkey: was the money concealed about the animal's clothing? That was the next question in the robber's mind.

"Half a dozen reasons, such as some one approaching, would have prevented this man making a search there; so he broke the monkey's chain and took the little brute along with him. In the vacant apartments the man did not meet the woman— we know why— perhaps presumed that she did not come, and so went on with his search. It is extremely probable that the monkey struggled and fought in the hands of a stranger, so the man stabbed it. He had no use for it, anyway. Now, as a matter of fact," and the scientist turned to the man whom he had personally taken prisoner, "you took a pouch or pocket from beneath the monkey's clothing, didn't you?"

The prisoner stared at him an instant, then nodded.

"So he got that counterfeit money which he knew had been in Bardetto's possession," continued The Thinking Machine. "It was not a great deal— not so much as he had anticipated, we'll say— then he and the woman planned to search Bardetto's room for more, knowing he was in the hospital. Perhaps the woman went ahead to reconnoiter. I didn't see her enter, but knew it was a woman because her skirts swished, and told Mr. Hatch to lose no time in arresting her.

"The minute I found the money I knew the solution of the affair— the solution that must be correct. Up to that time I had imagined a dozen other things— jewels, letters, papers of some sort. That is why I told Mr. Hatch I didn't know what I was searching for." There was a pause. "I think, perhaps, that explanation covers it all."

"I still don't see why Hatch should have been held up," remarked Detective Mallory.

"It might have been merely excess of caution," was the reply, "or the woman might have admitted him first under a misapprehension as to his identity, and was afraid to let him go. It was almost dark in the hall."

"But why should Bardetto entrust the money to the monkey?" Hatch inquired curiously. "It seems to me that it would have been safer for him to carry it himself."

“On the contrary,” was the reply. “A man in his position is always expecting arrest. If the money had been found on him, it would have convicted him; if it had been found in his organ, and that should have fallen into other hands and been identified, it would have convicted him. But if the money was on the monkey, which couldn’t talk, and he felt himself in danger, it would have been easy to free it, and perhaps it could easily have succeeded in making its escape.”

The two prisoners willingly informed Detective Mallory of the whereabouts of the counterfeiter’s plant— were apparently even anxious to inform him— and he in person led the raid on it. Plates for the bills were seized, and five expert workers placed under arrest.

From the time Hutchinson Hatch was held up in the vacant room until seven prisoners were in their cells at police headquarters less than twelve hours had elapsed.

9. The Problem of the Perfect Alibi

PATROLMAN Gillis was standing idly on a corner, within the light-radius of a street lamp debating some purely personal questions when he heard the steady clack, clack, clack of footsteps a block or more away. He glanced up and dimly he saw a man approaching. As he came nearer the policeman noticed that the man’s right hand was pressed to his face.

“Good evening, officer,” said the stranger nervously. “Can you tell me where I can find a dentist?”

“Toothache?” inquired the policeman.

“Yes, and it’s nearly killing me,” was the reply. “If I don’t get it pulled I’ll— I’ll go crazy.”

The policeman grinned sympathetically.

“Had it myself— I know what it is,” he said. “You passed one dentist down in the other block, but there’s another just across the street here,” and he indicated a row of brown-stone

residences. "Dr. Paul Sitgreaves. He'll charge you good and plenty."

"Thank you," said the other.

He crossed the street and the policeman gazed after him until he mounted the steps and pulled the bell. After a few minutes the door opened, the stranger entered the house and Patrolman Gillis walked on.

"Dr. Sitgreaves here?" inquired the stranger of a servant who answered the bell.

"Yes."

"Please ask him if he can draw a tooth for me. I'm in a perfect agony, and—"

"The doctor rarely gets up to attend to such cases," interrupted the servant.

"Here," said the stranger and he pressed a bill in the servant's hand. "Wake him for me, won't you? Tell him it's urgent."

The servant looked at the bill, then opened the door and led the patient into the reception room.

Five minutes later, Dr. Sitgreaves, gaping ostentatiously, entered and nodded to his caller.

"I hated to trouble you, doctor," explained the stranger, "but I haven't slept a wink all night."

He glanced around the room until his eye fell upon a clock. Dr. Sitgreaves glanced in that direction. The hands of the clock pointed to 1:53.

"Phew!" said Dr. Sitgreaves. "Nearly two o'clock. I must have slept hard. I didn't think I'd been asleep more than an hour." He paused to gape again and stretch himself. "Which tooth is it?" he asked.

"A molar, here," said the stranger, and he opened his mouth.

Dr. Sitgreaves gazed officially into his innermost depths and fingered the hideous instruments of torture.

"That tooth's too good to lose," he said after an examination. "There's only a small cavity in it."

"I don't know what's the matter with it," replied the other impatiently, "except that it hurts. My nerves are fairly jumping."

Dr. Sitgreaves was professionally serious as he noted the drawn face, the nervous twitching of hands and the unusual pallor of his client.

"They are," he said finally. "There's no doubt of that. But it isn't the tooth. It's neuralgia."

"Well, pull it anyway," pleaded the stranger. "It always comes in that tooth, and I've got to get rid of it some time."

"It wouldn't be wise," remonstrated the dentist. "A filling will save it. Here," and he turned and stirred an effervescent powder in a glass. "Take this and see if it doesn't straighten you out."

The stranger took the glass and gulped down the foaming liquid.

"Now sit right there for five minutes or so," instructed the dentist. "If it doesn't quiet you and you insist on having the tooth pulled, of course— —"

He sat down and glanced again at the clock after which he looked at his watch and replaced it in a pocket of his pajamas. His visitor was sitting, too, controlling himself only with an obvious effort.

"This is real neuralgia weather," observed the dentist at last, idly. "Misty and damp."

"I suppose so," was the reply. "This began to hurt about twelve o'clock, just as I went to bed, and finally it got so bad that I couldn't stand it. Then I got up and dressed and came out for a walk. I kept on, thinking that it would get better but it didn't and a policeman sent me here."

There was a pause of several minutes.

"Feel any better?" inquired the dentist, at last.

"No," was the reply. "I think you'd better take it out."

"Just as you say!"

The offending tooth was drawn, the stranger paid him with a sigh of relief, and after a minute or so started out. At the door he turned back.

"What time is it now, please?" he asked.

"Seventeen minutes past two," replied the dentist.

"Thanks," said the stranger. "I'll just have time to catch a car back home."

"Good night," said the dentist.

"Good night."

SKULKING along through the dense gloom, impalpably a part of the murky mist which pressed down between tall board fences on each side, moved the figure of a man. Occasionally he shot a glance behind him, but the general direction of his gaze was to his left, where a fence cut off the small back-yards of an imposing row of brown-stone residences. At last he stopped and tried a gate. It opened noiselessly and he disappeared inside. A pause. A man came out of the gate, closed it carefully and walked on through the alley toward an arc-light which spread a generous glare at the intersection of a street.

NEXT MORNING at eight o'clock, Paul Randolph De Forrest, a young man of some social prominence, was found murdered in the sitting room of his suite in the big Avon apartment house. He had been dead for several hours. He sat beside his desk, and death left him sprawled upon it face downward. The weapon was one of several curious daggers which had been used ornamentally on the walls of his apartments. The blade missed the heart only a quarter of an inch or so; death must have come within a couple of minutes.

Detective Mallory went to the apartments, accompanied by the Medical Examiner. Together they lifted the dead man. Beneath his body, on the desk, lay a sheet of paper on which were scrawled a few words; a pencil was clutched tightly in his right hand. The detective glanced then stared at the paper; it startled him. In the scrawly, trembling, incoherent handwriting of the dying man were these disjointed sentences and words:

Murdered... Franklin Chase... quarrel... stabbed me... am dying... God help me... clock striking 2... good-bye.

The detective's jaws snapped as he read. Here was crime, motive and time. After a sharp scrutiny of the apartments, he went down the single flight of stairs to the office floor to make some inquiries. An elevator man, Moran, was the first person questioned. He had been on duty the night before. Did he know Mr. Franklin Chase? Yes. Had Mr. Franklin Chase called to see Mr. De Forrest on the night before? Yes.

"What time was he here?"

"About half past eleven, I should say. He and Mr. De Forrest came in together from the theatre."

"When did Mr. Chase go away?"

"I don't know, sir. I didn't see him."

"It might have been somewhere near two o'clock?"

"I don't know, sir," replied Moran again, "I'll— I'll tell you all I know about it. I was on duty all night. Just before two o'clock a telegram was 'phoned for a Mr. Thomas on the third floor. I took it and wrote on it the time that I received it. It was then just six minutes before two o'clock. I walked up from this floor to the third— two flights— to give the message to Mr. Thomas. As I passed Mr. De Forrest's door, I heard loud voices, two people evidently quarrelling. I paid no attention then but went on. I was at Mr. Thomas's door possibly five or six minutes. When I came down I heard nothing further and thought no more of it."

"You fix the time of passing Mr. De Forrest's door first at, say, five minutes of two?" asked the detective.

"Within a minute of that time, yes, sir."

"And again about two or a minute or so after?"

"Yes."

"Ah," exclaimed the detective. "That fits in exactly with the other and establishes beyond question the moment of the murder." He was thinking of the words "clock striking 2" written by the dying man. "Did you recognize the voices?"

“No, sir, I could not. They were not very clear.”

That was the substance of Moran’s story. Detective Mallory then called at the telegraph office and indisputable records there showed that they had telephoned a message for Mr. Thomas at precisely six minutes of two. Detective Mallory was satisfied.

Within an hour Franklin Chase was under arrest. Detective Mallory found him sound asleep in his room in a boarding house less than a block away from the Avon. He seemed somewhat astonished when informed of his arrest for murder, but was quite calm.

“It’s some sort of a mistake,” he protested.

“I don’t make mistakes,” said the detective. He had a short memory.

Further police investigation piled up the evidence against the prisoner. For instance, minute blood stains were found on his hands, and a drop or so on the clothing he had worn the night before; and it was established by three fellow lodgers— young men who had come in late and stopped at his room— that he was not in his boarding house at two o’clock the night before.

That afternoon Chase was arraigned for a preliminary hearing. Detective Mallory stated the case and his statement was corroborated by necessary witnesses. First he established the authenticity of the dying man’s writing. Then he proved that Chase had been with De Forrest at half past eleven o’clock; that there had been a quarrel— or argument— in De Forrest’s room just before two o’clock; and finally, with a dramatic flourish, he swore to the blood stains on the prisoner’s hands and clothing.

The august Court stared at the prisoner and took up his pen to sign the necessary commitment.

“May I say something before we go any further?” asked Mr. Chase.

The Court mumbled some warning about anything the prisoner might say being used against him.

“I understand,” said the accused, and he nodded, “but I will

show that there has been a mistake— a serious mistake. I admit that the writing was Mr. De Forrest's; that I was with him at half past eleven o'clock and that the stains on my hands and clothing were blood stains."

The Court stared.

"I've known Mr. De Forrest for several years," the prisoner went on quietly. "I met him at the theatre last night and walked home with him. We reached the Avon about half past eleven o'clock and I went to his room but I remained only ten or fifteen minutes. Then I went home. It was about five minutes of twelve when I reached my room. I went to bed and remained in bed until one o'clock, when for a reason which will appear, I arose, dressed and went out, say about ten minutes past one. I returned to my room a few minutes past three."

Detective Mallory smiled sardonically.

"When I was arrested this morning I sent notes to three persons," the prisoner went on steadily. "Two of these happen to be city officials, one the City Engineer. Will he please come forward?"

There was a little stir in the room and the Court scratched one ear gravely. City Engineer Malcolm appeared inquiringly.

"This is Mr. Malcolm?" asked the prisoner. "Yes? Here is a map of the city issued by your office. I would like to ask please the approximate distance between this point—" and he indicated on the map the location of the Avon— "and this." He touched another point far removed.

The City Engineer studied the map carefully.

"At least two and a half miles," he explained.

"You would make that statement on oath?"

"Yes, I've surveyed it myself."

"Thank you," said the prisoner, courteously, and he turned to face the crowd in the rear. "Is Policeman No. 1122 in Court?— I don't know his name?"

Again there was a stir, and Policeman Gillis came forward.

"Do you remember me?" inquired the prisoner.

"Sure," was the reply.

"Where did you see me last night?"

"At this corner," and Gillis put his finger down on the map at the second point the prisoner had indicated.

The Court leaned forward eagerly to peer at the map; Detective Mallory tugged violently at his moustache. Into the prisoner's manner there came tense anxiety.

"Do you know what time you saw me there?" he asked.

Policeman Gillis was thoughtful a moment.

"No," he replied at last. "I heard a clock strike just after I saw you but I didn't notice."

The prisoner's face went deathly white for an instant, then he recovered himself with an effort.

"You didn't count the strokes?" he asked.

"No, I wasn't paying any attention to it."

The colour rushed back into Chase's face and he was silent a moment. Then:

"It was two o'clock you heard strike?" It was hardly a question, rather a statement.

"I don't know," said Gillis. "It might have been. Probably was."

"What did I say to you?"

"You asked me where you could find a dentist, and I directed you to Dr. Sitgreaves across the street."

"You saw me enter Dr. Sitgreaves' house?"

"Yes."

The accused glanced up at the Court and that eminent jurist proceeded to look solemn.

"Dr. Sitgreaves, please?" called the prisoner.

The dentist appeared, exchanging nods with the prisoner.

"You remember me, doctor?"

"Yes."

"May I ask you to tell the Court where you live? Show us on this map please."

Dr. Sitgreaves put his finger down at the spot which had

been pointed out by the prisoner and by Policeman Gillis, two and a half miles from the Avon.

"I live three doors from this corner," explained the dentist.

"You pulled a tooth for me last night?" went on the prisoner.

"Yes."

"Here?" and the prisoner opened his mouth.

The dentist gazed down him.

"Yes," he replied.

"You may remember, doctor," went on the prisoner, quietly, "that you had occasion to notice the clock just after I called at your house. Do you remember what time it was?"

"A few minutes before two— seven or eight minutes, I think."

Detective Mallory and the Court exchanged bewildered glances.

"You looked at your watch, too. Was that exactly with the clock?"

"Yes, within a minute."

"And what time did I leave your office?" the prisoner asked.

"Seventeen minutes past two— I happen to remember," was the reply.

The prisoner glanced dreamily around the room twice, his eyes met Detective Mallory's. He stared straight into that official for an instant then turned back to the dentist.

"When you drew the tooth there was blood of course. It is possible that I got the stains on my fingers and clothing?"

"Yes, certainly."

The prisoner turned to the Court and surprised a puzzled expression on that official countenance.

"Is anything else necessary?" he inquired courteously. "It has been established that the moment of the crime was two o'clock; I have shown by three witnesses— two of them city officials— that I was two and a half miles away in less than half an hour; I couldn't have gone on a car in less than fifteen minutes— hardly that."

There was a long silence as the Court considered the matter. Finally he delivered himself, briefly.

"It resolves itself into a question of the accuracy of the clocks," he said. "The accuracy of the clock at the Avon is attested by the known accuracy of the clock in the telegraph office, while it seems established that Dr. Sitgreaves' clock was also accurate, because it was with his watch. Of course there is no question of veracity of witnesses— it is merely a question of the clock in Dr. Sitgreaves' office. If that is shown to be absolutely correct we must accept the alibi."

The prisoner turned to the elevator man from the Avon.

"What sort of a clock was that you mentioned?"

"An electric clock, regulated from Washington Observatory," was the reply.

"And the clock at the telegraph office, Mr. Mallory?"

"An electric clock, regulated from Washington Observatory."

"And yours, Dr. Sitgreaves?"

"An electric clock, regulated from Washington Observatory."

The prisoner remained in his cell until seven o'clock that evening while experts tested the three clocks. They were accurate to the second; and it was explained that there could have been no variation of either without this variation showing in the delicate testing apparatus. Therefore it came to pass that Franklin Chase was released on his own recognizance, while Detective Mallory wandered off into the sacred precincts of his private office to hold his head in his hands and think.

Hutchinson Hatch, reporter, had followed the intricacies of the mystery from the discovery of De Forrest's body, through the preliminary hearing, up to and including the expert examination of the clocks, which immediately preceded the release of Franklin Chase. When this point was reached his mental condition was not unlike that of Detective Mallory— he was groping hopelessly, blindly in the mazes of the problem.

It was then that he called to see Professor Augustus S. F. X. Van Dusen— The Thinking Machine. That distinguished

gentleman listened to a recital of the known facts with petulant, drooping mouth and the everlasting squint in his blue eyes. As the reporter talked on, corrugations appeared in the logician's expansive brow, and these gave way in turn to a net-work of wrinkles. At the end The Thinking Machine sat twiddling his long fingers and staring upward.

"This is one of the most remarkable cases that has come to my attention," he said at last, "because it possesses the unusual quality of being perfect in each way— that is the evidence against Mr. Chase is perfect and the alibi he offers is perfect. But we know instantly that if Mr. Chase killed Mr. De Forrest there *was* something the matter with the clocks despite expert opinion.

"We *know* that as certainly as we know that two and two make four, not *some* times but *all* the time, because our reason tells us that Mr. Chase was not in two places at once at two o'clock. Therefore we must assume either one of two things— that something was the matter with the clocks— and if there was we must assume that Mr. Chase was responsible for it— or that Mr. Chase had nothing whatever to do with Mr. De Forrest's death, at least personally."

The last word aroused Hatch to a new and sudden interest. It suggested a line of thought which had not yet occurred to him.

"Now," continued the scientist, "if we can find one flaw in Mr. Chase's story we will have achieved the privilege of temporarily setting aside his defence and starting over. If, on the contrary, he told the full and exact truth and our investigation proves that he did, it instantly clears him. Now just what have you done, please?"

"I talked to Dr. Sitgreaves," replied Hatch. "He did not know Chase— never saw him until he pulled the tooth, and then didn't know his name. But he told me really more than appeared in court, for instance, that his watch had been regulated only a few days ago, that it had been accurate since, and that he knew it was accurate next day because he kept an important

engagement. That being accurate the clock must be accurate, because they were together almost to the second.

"I also talked to every other person whose name appears in the case. I questioned them as to all sorts of possibilities, and the result was that I was compelled to accept the alibi— not that I'm unwilling to of course, but it seems peculiar that De Forrest should have written the name as he was dying."

"You talked to the young men who went into Mr. Chase's room at two o'clock?" inquired The Thinking Machine casually.

"Yes."

"Did you ask either of them the condition of Mr. Chase's bed when they went in?"

"Yes," replied the reporter. "I see what you mean. They agreed that it was tumbled as if someone had been in it."

The Thinking Machine raised his eyebrows slightly.

"Suppose, Mr. Hatch, that you had a violent toothache," he asked after a moment, still casually, "and were looking for relief, would you stop to notice the number of a policeman who told you where there was a dentist's office?"

Hatch considered it calmly, as he stared into the inscrutable face of the scientist.

"Oh, I see," he said at last. "No, I hardly think so, and yet I might."

Later Hatch and The Thinking Machine, by permission of Detective Mallory, made an exhaustive search of De Forrest's apartments in the Avon, seeking some clue. When the Thinking Machine went down the single flight of stairs to the office he seemed deeply perplexed.

"Where is your clock?" he inquired of the elevator man.

"In the inside office, opposite the telephone booth," was the reply.

The scientist went in and taking a stool, clambered up and squinted fiercely into the very face of the timepiece. He said "Ah!" once, non-committally, then clambered down.

"It would not be possible for anyone here to see a person

pass through the hall," he mused. "Now," and he picked up a telephone book, "just a word with Dr. Sitgreaves."

He asked the dentist only two questions and their nature caused Hatch to smile. The first was:

"You have a pocket in the shirt of your pajamas?"

"Yes," came the wondering reply.

"And when you are called at night you pick up your watch and put it in that pocket?"

"Yes."

"Thanks. Good-bye."

Then The Thinking Machine turned to Hatch.

"We are safe in believing," he said, "that Mr. De Forrest was not killed by a thief, because his valuables were undisturbed, therefore we must believe that the person who killed him was an acquaintance. It would be unfair to act hastily, so I shall ask you to devote three or four days to getting this man's history in detail; see his friends and enemies, find out all about him, his life, his circumstances, his love affairs— all those things."

Hatch nodded; he was accustomed to receiving large orders from The Thinking Machine.

"If you uncover nothing in that line to suggest another line of investigation I will give you the name of the person who killed him and an arrest will follow. The murderer will not run away. The solution of the affair is quite clear, unless—" he emphasized the word— "unless some unknown fact gives it another turn."

Hatch was forced to be content with that and for the specified four days laboured arduously and vainly. Then he returned to The Thinking Machine and summed up results briefly in one word: "Nothing."

The Thinking Machine went out and was gone two hours. When he returned he went straight to the 'phone and called Detective Mallory. The detective appeared after a few minutes.

"Have one of your men go at once and arrest Mr. Chase," The Thinking Machine instructed. "You might explain to him that there is new evidence— an eye witness if you like. But don't

mention my name or this place to him. Anyway bring him here and I'll show you the flaw in the perfect alibi he set up!"

Detective Mallory started to ask questions.

"It comes down simply to this," interrupted The Thinking Machine impatiently. "Somebody killed Mr. De Forrest and that being true it must be that that somebody can be found. Please, when Mr. Chase comes here do not interrupt me, and introduce me to him as an important new witness."

An hour later Franklin Chase entered with Detective Mallory. He was somewhat pale and nervous and in his eyes lay a shadow of apprehension. Over it all was the gloss of ostentatious nonchalance and self control. There were introductions. Chase started visibly at actual reference to the "important new witness."

"An eye witness," added The Thinking Machine.

Positive fright came into Chase's manner and he quailed under the steady scrutiny of the narrow blue eyes. The Thinking Machine dropped back into his chair and pressed his long, white fingers tip to tip.

"If you'll just follow me a moment, Mr. Chase," he suggested at last. "You know Dr. Sitgreaves, of course? Yes. Well, it just happens that I have a room a block or so away from his house around the corner. These are Mr. Hatch's apartments." He stated it so convincingly that there was no possibility of doubt. "Now my room faces straight up an alley which runs directly back of Dr. Sitgreaves's house. There is an electric light at the corner."

Chase started to say something, gulped, then was silent.

"I was in my room the night of Mr. De Forrest's murder," went on the scientist, "and was up moving about because I, too, had a toothache. It just happened that I glanced out my front window." His tone had been courteous in the extreme; now it hardened perceptibly. "I saw you, Mr. Chase, come along the street, stop at the alley, glance around and then go into the alley. *I saw your face clearly* under the electric light, and that

was at *twenty minutes to three o'clock*. Detective Mallory has just learned of this fact and I have signified my willingness to go on the witness stand and swear to it."

The accused man was deathly white now; his face was working strangely, but still he was silent. It was only by a supreme effort that he restrained himself.

"I saw you open a gate and go into the back yard of Dr. Sitgreaves's house," resumed The Thinking Machine. "Five minutes or so later you came out and walked on to the cross street, where you disappeared. Naturally I wondered what it meant. It was still in my mind about half past three o'clock, possibly later, when I saw you enter the alley again, disappear in the same yard, then come out and go away."

"I— I was not— not there," said Chase weakly. "You were— were mistaken."

"When we know," continued The Thinking Machine steadily, "that you entered that house *before* you entered by the front door, we *know* that you tampered with Dr. Sitgreaves's watch and clock, and when we know that you tampered with those we know that you murdered Mr. De Forrest as his dying note stated. Do you see it?"

Chase arose suddenly and paced feverishly back and forth across the room; Detective Mallory discreetly moved his chair in front of the door. Chase saw and understood.

"I know how you tampered with the clock so as not to interfere with its action or cause any variation at the testing apparatus. You were too superbly clever to stop it, or interfere with the circuit. Therefore I see that you simply took out the pin which held on the hands and moved them backward one hour. It was then actually a quarter of three— you made it a quarter of two. You showed your daring by invading the dentist's sleeping room. You found his watch on a table beside his bed, set that with the clock, then went out, spoke to Policeman Gillis whose number you noted and rang the front door bell. After you left by the front door you allowed time for the household to get quiet

again, then re-entered from the rear and reset the watch and clock. Thus your alibi was perfect. You took desperate chances and you knew it, but it was necessary."

The Thinking Machine stopped and squinted up into the pallid face. Chase made a hopeless gesture with his hands and sat down, burying his face.

"It was clever, Mr. Chase," said the scientist finally. "It is the only murder case I know where the criminal made no mistake. You probably killed Mr. De Forrest in a fit of anger, left there while the elevator boy was upstairs, then saw the necessity of protecting yourself and devised this alibi at the cost of one tooth. Your only real danger was when you made Patrolman Gillis your witness, taking the desperate chance that he did not know or would not remember just when you spoke to him."

Again there was silence. Finally Chase looked up with haggard face.

"How did you know all this?" he asked.

"Because under the exact circumstances, nothing else *could* have happened," replied the scientist. "The simplest rules of logic proved conclusively that this did happen." He straightened up in the chair. "By the way," he asked, "what was the motive of the murder?"

"Don't you know?" asked Chase, quickly.

"No."

"Then you never will," declared Chase, grimly.

When Chase had gone with the detective, Hatch lingered with The Thinking Machine.

"It's perfectly astonishing," he said. "How did you get at it anyway?"

"I visited the neighbourhood, saw how it could have been done, learned through your investigation that no one else appeared in the case, then, knowing that this must have happened, tricked Mr. Chase into believing I was an eye witness to the incident in the alley. That was the only way to make him confess. Of course there was no one else in it."

One of the singular points in the Chase murder trial was that while the prisoner was convicted of murder on his own statement no inkling of a motive ever appeared.

10. The Problem of the Private Compartment

LEANING forward in his seat, the driver lashed his horses into a gallop. The carriage had barely halted at the railroad station, when a woman leaped out. She was closely veiled; but her slender figure revealed the fact that she was little more than a girl. She paused just long enough to hand the driver a bill, then hurried to a train.

When the conductor passed through the cars he found the slender young woman sitting in one of the day coaches. She paid her fare in cash through to Albany, and made inquiry about accommodations in the sleeping car. He volunteered to arrange the matter for her; and so it came to pass that half an hour after she had boarded the train she was ushered into the more exclusive rear car.

"We have only one upper berth," the conductor there apologized.

"Oh, well, it doesn't really matter," she remarked listlessly, and was shown to a seat.

Then for the first time she raised her veil. Her pretty face was still flushed from the excitement of catching the train; but a haunting, furtive fear mingled with a shade of sorrow in the shadowy, dark eyes, and the red lips expressed a sullen defiance. For a long time she sat moodily thoughtful, staring out of the window; then the growing dusk obliterated the flying landscape, and the porter came through to light the lamps.

After awhile the door of the drawing room compartment at one end of the car opened, and a young woman glanced out. It might have been idle curiosity which caused her to scrutinize the lounging passengers; but her eyes paused, with a flash of

recognition, on the crisp, brown hair of the slender young woman just half a dozen seats ahead, and she went forward.

"Why, Julia!" she exclaimed. "I hadn't the faintest idea you were on the train!"

First there came an embarrassed surprise into the face of the slender young woman; but it was instantly followed by an expression of relief.

"Oh, Mary! How you startled me!"

There was a little interchange of greetings, which ended by Miss Mary Langham leading Miss Julia Farrar back into the snug little drawing room. They had been classmates at Vassar, these two, and there were a thousand things to talk about; yet in the manner of each was a certain restraint, a vague, indefinable reserve. As a breaking point of a sudden silence which fell between them, Miss Farrar mentioned the upper berth that she had been given.

"Well, don't worry about that a moment, my dear," urged Miss Langham cheerfully. "I have this whole big compartment, and there are two lower berths. You shall take one, and I'll take the other." There was silence for a moment. "But, my dear girl, where are you going?"

"I'm going to Albany— now," was the reply.

"Right on the eve of your—"

"I'm not going to marry Mr. Devore!" interrupted Miss Farrar with quick passion.

Miss Langham lifted her arched brows in astonishment.

"Why, Julia, you amaze me!" she exclaimed.

"I'm running away from him now," she went on.

Miss Langham stared at her blankly for an instant. Defiance flamed in Miss Farrar's face; there were tense little lines about the mouth, and the lips were pressed sternly together. But at last some glimmer of comprehension seemed to reach Miss Langham, and with it came an expression which might almost have been of relief. With a quick movement she seized Miss Farrar's hand.

"I think I understand, dear," she said sympathetically at last. "Under all circumstances, I don't know that I can blame you either. Mr. Devore must know that you don't love him."

"Well, if he doesn't, it isn't because I haven't told him so, goodness knows!" replied Miss Farrar.

Miss Langham laughed lightly, and her eyes reflected some strange, new born light, a glimmer of satisfaction.

"Poor fellow!" she mused. "And he is so devoted!"

"I don't want his devotion!" blazed Miss Farrar. "The mere sight of him is intolerable to me. It's all just like— like I was being sold to him. It's perfectly hideous, and I won't— I won't— I won't!"

Defiance melted into tears of anger and mortification, and Miss Farrar lay against Miss Langham's shoulder while her slender figure was shaken by a storm of sobs. Miss Langham stroked the crisp, brown hair back from the white temples, and continued to stare dreamily out of the window.

"Even my father and mother and brother conspired with him against me," Miss Farrar sobbed after a time. "They insisted on the marriage from the first, merely because Mr. Devore happens to be wealthy. I don't know why I ever agreed, unless it was just desperation. I detest the man, and yet the members of my own family, knowing that, could only think of the brilliant match, the money, and social position which marriage would bring."

"Tomorrow it was to have been," mused Miss Langham vacantly.

"Yes, tomorrow. For weeks and weeks it has been a nightmare to me, and last night, somehow, I seemed to go all to pieces. The sight of the wedding gown made me perfectly furious. All today I thought of it, and thought of it, until my head seemed bursting. Then late this afternoon I could stand it no longer; so I— I ran away. I suppose it's horrid of me, and I know my father and mother will never forgive me for the scandal it will cause; but I don't care. They've made me almost hate them. I'm going to my aunt's in Albany and remain there for a few

days. Of course, my father will be furious, and will try to force me to return; but she's a dear loyal soul and won't let them take me away. Then I shall decide about the future."

"I can't imagine a worse fate than marriage with a man whom you don't love," said Miss Langham after a pause. "I don't blame you at all. But remember, my dear, in giving up your family you will have to look out for yourself— perhaps earn your own living?"

"I don't care," continued Miss Farrar passionately. "I have fifty or sixty dollars now, and before that is gone surely I can get a place as teacher, or governess, or something. I will do something."

"And I have no doubt that everything will come right," Miss Langham assured her. She raised the tear stained face between her hands and printed a kiss on each damp cheek. "And now, my dear, you need repose. Lie down and rest for awhile."

With the obedience of a child Miss Farrar lay across the berth, and after awhile, with Miss Langham's hand clasped between her own, closed her red, swollen eyes in sleep.

It was perhaps half an hour later that Miss Langham pressed her call button beside the door. A porter appeared.

"What is the next stop?" she inquired.

"East Newlands," was the reply.

"Can I send a telegram from there?"

"Yes, ma'am."

Miss Langham gently detached her fingers from the clinging clasp of the sleeping girl, and scribbled a telegram on a blank which the porter offered. It was addressed to J. Charles Wingate, in a small city, just beyond Albany, and said:

Have changed my mind. This is irrevocable. M.

WHEN the train pulled into Albany the following morning Miss Julia Farrar was found dead in her berth, fully dressed, except for her hat. A thirty-two caliber bullet had entered her

body just below the left shoulder. Miss Langham herself gave the alarm. When physicians came they agreed that Miss Farrar had been dead for at least two hours.

Professor Augustus S. F. X. Van Dusen— The Thinking Machine— absorbed, digested, and assimilated all the known facts in the problem of the private compartment. Instantly that singular, penetrating brain beneath the mop of tangled, straw yellow hair was alive with questions.

“Who is Miss Langham?” was the first query.

“She is the daughter of Daniel Eustace Langham, president of a national bank in his home city,” replied Hutchinson Hatch, reporter. “She and Miss Farrar were classmates in Vassar, and met by accident on the train.”

“Do you know they met by accident?”

“It seems to have been by accident,” the reporter amended. “As a matter of fact, Miss Langham was on the train first— in fact, had engaged the drawing room compartment a couple of days ahead.”

“Does she know— Miss Langham, I mean— know Devore?”

“Very well indeed,” responded the reporter. “A couple of years ago he was rather assiduous in his attentions to her. That was before Devore met Miss Farrar.”

The Thinking Machine turned suddenly in his chair and squinted into the eyes of the newspaper man. Faint corrugations in the dome-like brow were swept away.

“Oh!” he exclaimed. “An old love affair! How did it come to be broken off?”

“I imagine it was Devore who broke it off,” replied Hatch. “When he met Miss Farrar it resulted in a quick transfer of attentions. As a matter of fact, he doesn’t seem to be a very pleasant sort of person, anyway— spoiled son and sole heir of a man worth millions. You know what that means.”

“And where was Miss Langham going at the time of the tragedy?” inquired the scientist.

“To visit some friends just beyond Albany.”

For a long time The Thinking Machine was silent, while Hatch turned over those vague impressions which the scientist's manner and words had created.

"That seems to simplify the matter somewhat," mused The Thinking Machine at last.

"You don't mean," blurted Hatch quickly— "you don't mean that Miss Langham could have had anything to do with Miss Farrar's death?"

"Why not?" demanded The Thinking Machine coldly.

"But her social position, her wealth, everything, would seem to remove her beyond the range of suspicion," Hatch protested.

The Thinking Machine regarded him with frank disapproval.

"Two and two always make four, Mr. Hatch," he said shortly.

"We have here a motive for the crime— jealousy— and practically exclusive opportunity. Social position and wealth do not deter criminals; they only make them more cunning. In this case two and two make four so obviously that I am surprised Miss Langham wasn't arrested immediately. Where is she now, by the way?"

"With her father and mother at the Hotel Bellevoir in town here," Hatch responded. "Immediately after the tragedy was reported she returned here, and her father and mother joined her. She is now suffering from shock, and inaccessible— at least to reporters."

"Any physician?"

"Dr. Barrow and Dr. Curtis are attending her."

"I may call on her in person," remarked The Thinking Machine. "And now about this man Devore? Have you seen him?"

"He was the first man the police wanted to see," explained the reporter. "They have already made him account for his every move on the night of the murder. Of course, a motive in his case would be obvious— anger, revenge, jealousy, anything."

"And where was he between, say, midnight and breakfast that night?"

"He says he was asleep at home."

"He says!" snapped The Thinking Machine abruptly. "Don't you know?"

"Not of my knowledge."

"Well, find out!" was the curt instruction. "That isn't one of the things that we can be at all uncertain about."

Hatch opened his eyes again. Here were two lines of investigation laid out by the scientist, either one of which might, if pursued to a logical conclusion, convict a person of wealth and position of a terrible crime.

"And Miss Farrar's family?" continued The Thinking Machine mercilessly. "Where were her father and brother that night?"

"Surely you can't believe that—"

"I never believe anything, Mr. Hatch, until I know it. I merely wanted to know where they were; for on that side too it is possible to conceive a motive for Miss Farrar's death."

"There has been no inquiry in that direction at all," explained the bewildered reporter. "I'll begin one."

Then for a time The Thinking Machine sat with fingertips pressed idly together, squinting blankly at the ceiling.

"While a motive is never absolutely essential to the solution of any criminal problem," he observed after awhile, "it will frequently indicate a line of investigation. Now, in the usual case when a motive appears the solution is inevitable. But this case differs from the usual case in that we have too many motives—three excellent ones that we know— a jealous woman, a suitor discarded on the eve of his wedding, and perhaps a vengeful father or brother. And beyond those there are other possibilities."

Hatch went about his business with turbulent, troubled thoughts— a vague sense of treading on dangerous ground— while The Thinking Machine turned to the telephone. Five minutes later he picked up his hat and went to the Hotel Bellevoir.

"Did Dr. Curtis telephone you?" he inquired of the clerk.

“Yes. Is this Mr. Van Dusen?”

The Thinking Machine bobbed his head, and was ushered into Miss Langham’s apartments.

Pallid as the sheets, resistlessly inert, the girl lay staring upward as if fascinated by the brilliant scintillating point which floated backward and forward rhythmically before her eyes as The Thinking Machine slowly waved his arm. It was like some weird exorcism, some uncanny incantation, but it compelled attention.

“Watch it closely, please!”

The scientist’s tone was low, almost a whisper, yet it carried a command. The swing of his arm shortened gradually, almost imperceptibly, and slowly the bright spot passed upward in little erratic circles until it was directly before her eyes. And there it stopped for a moment. After awhile it moved on again, still farther upward, in a straight line, until the girl was aware of a queerly strained feeling in her eyes. It paused again, then very, very slowly began to move round and round.

After awhile the fascination in the girl’s eyes gave way to a vacant staring, and the pupils distended, as a mist crept over them. Slowly, slowly, the swing of the bright spot decreased, until at last it hung motionless, suspended in air, between the slim fingers of the scientist. Thus for a time, and the vacant staring became glassy— dead. Then the bright spot was withdrawn, materializing as the lower part of the bowl of a silver spoon which The Thinking Machine laid on the table beside him. One hand passed over the girl’s white face once. The long fingers lingered caressingly on the lids, and pressed them together.

The Thinking Machine passed round from the head of the couch where the girl lay and took a seat, with his hand on her wrist. The pulse fluttered a little, but he nodded his head as if satisfied.

“You are on a train— in a private compartment,” he said, still in a voice that was almost a whisper.

"Yes," breathed the girl. It was nearly inaudible.

"A young woman is sleeping there."

"Yes," came the sigh again.

"You hate her."

"No."

It was a flat, unequivocal denial, and the dreamy, sighing tone hardened suddenly. Again The Thinking Machine pressed his fingers down on her eyelids, and sat silent for a time.

"You dislike her," he suggested.

"No," the girl denied once more dreamily. "She and I were—
— " and the phrase drifted off into intangible incoherency.

"You have a revolver in your traveling bag."

"Yes."

The petulant, crabbed face of The Thinking Machine lighted suddenly, exultantly. But when he spoke again it was in the same whispering monotone. "You always carry a revolver when traveling."

"No."

"Your revolver is thirty-two caliber."

"I don't know."

"The sleeping woman loves the man you love."

"Yes."

"She is at your mercy; therefore you will kill her."

"No, no, no!"

There was a sudden horror in the voice, a strange, convulsive working of the face, and the eyelids fluttered. Thrice The Thinking Machine passed his hands over her face, and she became calm again.

"You are back in your own apartments at the Hotel Bellevoir," he continued after a minute.

"Yes," she answered readily.

"Your revolver is in the traveling bag."

"No."

The Thinking Machine glanced quickly round the room, and again his eyes settled on the pallid face.

"It is in the dressing table."

"Yes."

With set, inscrutable face, the scientist arose and went to the table. In the drawer lay a handsomely mounted weapon. He picked it up, examined it closely as he whirled the barrel in his fingers, and then replaced it, after which he returned to the girl.

"You have fainted," he said. "You will return to consciousness in a moment."

He leaned forward and blew gently into the closed eyes, and the girl sighed. Thrice he did this, then a trace of color appeared in the face, and she raised her eyelids. For an instant she stared into the drawn face of the scientist.

"Why, I must have fainted," she said.

Hutchinson Hatch burst into the laboratory, where The Thinking Machine was at work, with an air of excitement which caused the eminent scientist to turn and squint at him in disapproval.

"That man Devore lied about where—" he began.

"Just a moment, Mr. Hatch," interrupted The Thinking Machine curtly. "Did you see the sleeping car in which Miss Farrar was killed?"

"Yes," replied the reporter, and, somewhat abashed, sat down.

"I suppose the windows were all screened, as is usually the case?"

"Why, I suppose so," was the reply.

"Was there any hole of any sort in the screen of the window in the private compartment?"

"Oh, I see what you mean. Shot from the outside. No, there was no hole."

The brow of the scientist had been smooth and unruffled as the summer sea; but now the minute corrugations which Hatch knew so well appeared again, and he sat silent for a time.

"When you came in you started to say—" he remarked at last.

"That Devore lied as to where he was the night Miss Farrar was killed," Hatch hastened to explain. "He said he was at home in bed. I have the word of two servants that he was not, and have learned that he was at Troy that night."

"Well?" inquired the scientist impassively.

"Troy is just a short distance from Albany," the reporter rushed on. "The train had to pass so near there, don't you see, that Devore might have boarded it, and—"

He paused. The Thinking Machine arose suddenly, and paced back and forth across the room twice.

"Why was he in Troy?" he asked.

"It was some sort of dinner— a stag affair, I imagine— the night before the day of the wedding," said Hatch.

"And I dare say young Farrar, Miss Farrar's brother, was with him?"

"Yes, he was. You didn't give me time."

The Thinking Machine passed into the adjoining room, and Hatch heard the telephone bell. Fifteen minutes later he came out.

"Devore and Farrar spent the night— that is from midnight until eight o'clock in the morning of the murder— in adjoining rooms at a hotel in Troy," explained the scientist. "They were asleep there. So that makes the affair perfectly clear."

"Perfectly clear?" exclaimed Hatch. "Perfectly clear? I don't see how you make that out, when—"

The Thinking Machine started out, with Hatch following. They went straight to the Hotel Bellevoir, and sent their cards to Langham. He was staring blankly at a telegram when they entered. He recognized The Thinking Machine by name as a physician who had called on his daughter.

"Your daughter is engaged to be married, isn't she, Mr. Langham?" inquired the scientist.

"Yes, she was," he replied wonderingly. "Why?"

"And she was, I believe, on her way to visit some friends in a small city just beyond Albany when this— this unhappy event

occurred?"

"Yes," Langham assented again.

"Perhaps the family of the man to whom she was betrothed?"

Again Langham assented.

"And what is the man of this man, please?"

"J. Charles Wingate," was the reply. "I've just got a telegram from him. Here it is."

The Thinking Machine glanced at the yellow slip of paper. The message was dated at New York city, and said tersely:

Wedding impossible. I cannot explain. WINGATE.

"It's an outrage," declared Langham.

"It's a confession," remarked The Thinking Machine.

"When we remove Miss Langham as a possibility," The Thinking Machine told Hatch and Detective Mallory, "we inevitably bring the murder of Miss Farrar down to a man. And I may say that I personally demonstrated Miss Langham's innocence by a little experiment in mechanical hypnotism. She confessed that she had a revolver on the train. But her revolver was a twenty-two caliber, and the bullet that killed Miss Farrar was a thirty-two. So there was no further need to consider her.

"I also removed Devore by establishing an alibi for him even after he had lied to the police as to his whereabouts on the night of the crime. Why he lied doesn't appear, and is of no consequence now. I proved his whereabouts conclusively by telephone, and at the same time proved the whereabouts of Miss Farrar's brother, thus eliminating both at the same time. Then what?

"Everyone had presumed— and I also did at first— that the person who killed Miss Farrar was in the private compartment with her. And yet, if that was true, why didn't the shot awake Miss Langham? When I knew that she was innocent the logic of the thing indicated that the shot came from the outside.

“It was a warm night, and we shall suppose the window was open. Was the screen in it? It did not have a hole in it; so I presumed it was not. Then the possibilities became infinite. The first thing to do was dispose of Devore and Miss Farrar’s brother. I did that. Both you gentlemen recall, I dare say, the peculiar circumstances surrounding the murder of the young woman in a box at the opera? Yes. Instantly that came to me—perhaps the wrong woman had been killed. If so, we must look for a motive for the murder of Miss Langham.

“Well, we know that there had once been a love affair between Miss Langham and Devore. Was it possible that, despite her engagement to another man, Miss Langham still loved Devore?— that she learned Miss Farrar’s story, and then and there decided to jilt the man to whom she was engaged, because of this love for Devore, who was now, by the act of Miss Farrar, cast aside? If so, would she have telegraphed to him this change of mind? If we suppose that she was expecting to meet him in a few hours— in other words, visit his family— we can imagine her telegraphing from the train, while her intention was to go no further than Albany, where she would turn back.

“That hypothesis made the entire matter perfectly clear. She did telegraph her decision to J. Charles Wingate, and a motive for her murder was instantly created— revenge. Now, he probably knew what train she was on, that she had taken the private compartment in a certain sleeping car on that train, and it is not only possible but probable that he took a train to meet it.

“Some time between the moment he received the telegram and met the train on which she was a passenger he resolved upon murder. The method? What better than firing through the window while the train was standing at some small station? The shot might not attract attention, particularly as the sleeping car was the last on the train, and it was, say, four o’clock in the morning. He did fire through the window; therefore the shot, being outside, did not disturb Miss Langham, already

accustomed to the roar and clatter of the train. Wingate merely looked in, saw a woman asleep, and fired. He did not know that he had killed the wrong woman, perhaps, until the matter got into the newspapers."

There was a long silence. Detective Mallory and Hatch exchanged glances; then the detective turned to The Thinking Machine.

"And where is Wingate?" he inquired.

"Mr. Langham received a telegram from him dated at New York," was the reply. "I imagine it was sent on the eve of his flight, perhaps abroad. I should advise, anyway, that a watch be kept on the steamers as they arrive on the other side."

And eight days later J. Charles Wingate was arrested as he walked down the gangplank of a steamer at Liverpool. He had gone over in the steerage.

11. The Problem of the Red Rose

THROUGH the open windows of a pleasantly sunny little sitting room a lazy breath of early summer drifted in, and gently stirred the wayward hair of a girl who leaned forward over a small writing desk with her head resting upon one white fore arm, and her face hidden. Her attitude was one of utter collapse, complete abandonment perhaps to grief or perhaps to actual physical suffering; yet there was no movement of the slender, graceful body, nothing to indicate even a passive interest in her surroundings— just this silent, motionless figure, alone.

One arm, the left, swung down listlessly at her side, and in that hand she held a single red rose, a splendid, full blown crimson blossom. The thorny stem touched the floor, and the leaves swayed rhythmically, playthings of the caressing breeze. On the green stem, just below the girl's tightly clenched hand, was a single stain— a drop of blood— as if the thorn had pierced the delicate flesh. On the desk, from which dainty writing

trinkets had been pushed back, was a florist's box, open. It was from this box evidently that the red rose had been taken. The wax paper which had been wrapped round the flower was torn.

A Dresden clock on the mantel whirred faintly and chimed the hour of five; but the girl gave not the slightest indication of having heard. And then after a moment a door opened and a maid appeared. She paused as her eyes fell upon the figure of the young woman, made as if to speak, then instead silently withdrew, leaving the door slightly open. She did not seem surprised that no notice was taken of her. A dozen times she had found her young mistress like this, and it was always after the box had come from the florist's with the single red rose. She sighed a little as she went out.

The hands of the clock crept on round the dial slowly, to five minutes past the hour, then to ten, and finally to fifteen. Then there came a scampering of soft feet along the hall, and a white, shaggy little dog thrust his head in at the door inquisitively. Helterskelter he came tumbling in and planted two soiled fore feet in the girl's lap as he awaited the caress which was always ready for him. Now it didn't come. He backed away and regarded her thoughtfully. It must be some new sort of game she was playing. He crouched on the floor and barked playfully; but she didn't look round.

Evidently this was not what was expected of him. He scampered back and forth across the room twice, then returned to the motionless figure and placed his feet in her lap again. She wouldn't look. He barked, whined softly, then off like the wind round the room again. He stopped on her left side this time—the side where the arm swung down, and the hand clutched the rose. His moist tongue caressed the closed hand, and sniffed at it insistently. Suddenly he seemed dazed, and reeled uncertainly as if from an unexpected blow. He whined again as if choking; there was a rattle in his shaggy throat; and then began a violent whirling, twisting, which continued till he fell. After awhile he lay still with all four feet turned upward and glazed, staring eyes.

And yet the girl hadn't moved.

The hands of the clock crept on. At five minutes of six o'clock the maid appeared at the door again, paused for a moment, then ventured in. "Will you dress for dinner, ma'am?" she inquired.

The girl didn't answer.

"It's nearly six o'clock, ma'am," said the maid.

Still there was no answer.

The maid approached her young mistress and touched her lightly on the shoulder. "You'll be late, unless—" she began.

And then something about the unresisting, impassive figure frightened her. She shook the girl sharply and called her name many times. Finally with an effort she raised the shapely head. What she saw in the upturned face wrung scream after scream from her lips, now suddenly ashen, and turning she staggered toward the door with unutterable horror in her widely distended eyes. She clutched at the door frame to steady herself, screamed again, and fell forward, fainting. There they found them: Miss Edna Burdock dead with hideously distorted face,— a face upon which was written some awful agony,— and the rose still clasped so fiercely in her hand that the thorns had pierced the palm; her little dog Tatters dead beside her; and the maid, Goodwin, unconscious. For half an hour two servants worked over the maid; but when at last she opened her eyes she only screamed and babbled incoherently. There were no marks on Miss Burdock's body save the prick of thorns in her left hand— nothing that would indicate the manner of death; nor was there the slightest thing to explain the death of the dog.

"The police are not at all certain that Miss Burdock's death was due to anything more mysterious than heart failure," Hutchinson Hatch, reporter, was explaining. "In that event, of course—"

"In that event, of course," interrupted Professor Augustus S. F. X. Van Dusen— The Thinking Machine— crabbedly, "their theory must be that the pet dog died at the same time of the

same disease?"

"That seems to be about the way they look at it, although there are several curious features," the reporter went on; "for instance, the expression on her face." He shuddered a little. "I saw her. It was awful. The dog too. There was not a mark or scratch on the dog— not even the prick of a thorn like that in the girl's palm, therefore heart failure seems to be the only thing that will cover the case, unless—"

"Fiddlesticks!" exclaimed the irritable little scientist.

"Persons who die of heart failure don't show suffering in their faces, and little dogs don't have heart failure. What did the autopsy show?"

"Nothing illuminating," responded the reporter. "There was no trace of poison in Miss Burdock's system; a blood test showed her blood to be about normal, and yet she was dead. There was a peculiar constriction of the heart, and the same thing was true of the dog. The medical examiner's report brought out these facts; but there was no poison— they were just dead."

"When did this happen, Mr. Hatch?"

"Yesterday afternoon, Monday."

"You tell me the maid found the body. Has she said anything about noticing any odor when she entered the room?"

"Not a word; but there are curious things—"

"In a minute, Mr. Hatch," interrupted The Thinking Machine impatiently. "Were the windows open?"

"Yes," replied the reporter. "She was sitting at her desk, between two open windows."

The man of science dropped back in his chair, and for a long time sat silent with the perpetually squinting eyes turned upward, and slender white fingers pressed tip to tip. Hatch lighted a cigarette, smoked it, and threw the butt away before he spoke.

"There are peaches in the market, I think, Mr. Hatch," said the scientist at last. "When you go out, buy one, cut the meat

off, crush the kernel, take it to the maid, and ask her to smell it. Ask her if she noticed yesterday any odor similar to that when she entered the room and was near the girl's body."

Hatch absorbed the instructions wonderingly, then ventured a remark. "I presume you are thinking of poison. Isn't there a chance that despite the normal condition of her blood some sort of poison was introduced into her system— I mean that the thorns of the rose might have been poisoned, for instance."

"You say there was no scratch or thorn prick on the dog?" asked The Thinking Machine in answer.

"No mark of any sort."

"And the dog is dead. That answers your question, Mr. Hatch." He relapsed into silence.

"Poison on the thorns could not have killed both of them, because only the woman's hand showed the marks?" Hatch asked.

"Precisely," was the reply. "Unless we allow for coincidence, and that has never been reduced to a scientific law, we must say that both the woman and the dog died of the same cause. When we know that, we prove that the thorn prick had nothing to do with the woman's death. Two and two make four, Mr. Hatch, not sometimes but all the time. And so what have we left?"

"I don't see that we have anything left," remarked Hatch frankly. "If there is no outward cause, how can we—"

"The mere fact that there is no apparent cause, or outward cause, as you term it, makes the manner of death of both the woman and the dog perfectly plain," declared The Thinking Machine belligerently. "There is no mystery about that at all—it's obvious. Our problem is not what killed her, but who killed her."

"Yes, that seems quite clear," the reporter admitted.

Minute after minute passed while the scientist sat staring upward. Finally he lowered his eyes to the face of the newspaper man. "Where did this red rose come from?" he demanded.

"I was going to tell you about that," responded Hatch. "It came from Lamperti's, a florist. The police are investigating it now. It seems, according to a statement of the manager of the shop, that on June 16 he received a special delivery letter from Washington with only a typewritten, unsigned slip of paper inclosed. This directed that one dozen red roses be sent to Miss Burdock, one at a time on specified days, Mondays, Wednesdays, and Saturdays. They accepted the order,— there was no way to return the money anyway,— and so—"

He paused to gaze curiously into the eyes of The Thinking Machine. They were drawn down to mere slits of watery blue and some subtle change had altered the straight line of the lips.

"Well, well!" grumbled the scientist. "Go on!"

"As a rule the long box with the one rose was delivered at the house by one of the wagons of the company," the reporter continued; "but some days when the wagon was not going in that direction the box was sent by a messenger boy. This last rose went to her by messenger."

"And have all the roses been sent?"

"So the manager says."

"And where is the red rose— the one she had in her hand when found?"

"Detective Mallory has it in charge, I suppose," explained the reporter. "He has an idea that Miss Burdock was killed by poison on the thorns; so he stripped them off and sent them to a chemist to see if any trace of poison could be found. I presume he kept the flower and the box it came in."

"That's just like Mallory," commented the scientist testily. "Whenever the police want to keep a cat's teeth from falling out they cut off its tail. Now tell me something about Miss Burdock herself. Who was she? What was she? What were her circumstances?" He settled back in his chair for a categorical answer.

"She was the only daughter of Plympton Burdock; a man who is not wealthy, but who is well to do," answered Hatch.

"She lived at home with her father, her mother, and a younger brother, a chap about eighteen or nineteen years old. She was something of a social favorite, although not yet quite twenty-one, and went about a great deal; so—"

"So naturally a great many men, some of whom admired her," The Thinking Machine finished for him. "Now who are the men? Tell me about her love affairs?"

"It hasn't appeared yet that there was a love affair, in the sense you mean. At least, if there was no one knew of it."

"Doesn't the maid Goodwin know?" insisted the scientist.

"She says she doesn't."

"But somebody sent the rose. The mere fact that she received the one rose a dozen times indicates that some one was interested in her. Therefore, who was it? Who?"

"That's what the police are trying to find out now."

The Thinking Machine arose suddenly, picked up his hat and planted it aggressively on his enormous yellow head. "I'm going to the florist's," he said. "You get the peach and see the maid Goodwin. Meet me at police headquarters in an hour."

It required ten minutes for The Thinking Machine to reach the florist's shop, and in five minutes more the manager was at liberty.

"All I want to know," the scientist explained, "is the day you sent the first rose of that dozen to Miss Burdock, and I should like to see your records of delivery. That is, when a package is delivered either by your wagon or by messenger you get a receipt for it? Yes. I should like to see those, please."

The manager obligingly consulted his records. "The letter with the inclosure was received on June 16," he explained as he ran his finger down the book. "It came in the morning mail. June 16 was Monday; therefore the first rose of the dozen was sent that afternoon, Monday."

"Are you absolutely certain of that?" demanded The Thinking Machine. "A— a person's life may depend on that record."

The manager stared at him in frank astonishment, then arose. "I can make sure," he said. He went to a cabinet and took out another book— a delivery receipt book, and fluttered the leaves through his fingers. At last he laid it before The Thinking Machine and indicated an entry with his finger. "There it is," he said. "Monday, June 16, at five-thirty in the afternoon. The book was signed by Edna Burdock in person. See."

The Thinking Machine squinted down at the entry for a minute or more in silence. "From that date forward one rose was sent every Monday, Wednesday, and Saturday without a break until the dozen were delivered?" he asked at last.

"Yes; that was the direction. Run through the book on the dates it should have been sent and see, if you like."

The scientist heeded the suggestion, and for ten minutes or so was engrossed in the record. "These slips?" he inquired, as he looked up. "I find three of them."

"Those were the occasions when we didn't happen to have a wagon going in that direction," the manager explained; "so the box was sent by special messenger. Each messenger took a receipt and returned it here. In that way those receipts became a part of our record."

The Thinking Machine scrutinized the slips carefully, made a note of the dates on them, then closed the record book. That seemed to be all. Fifteen minutes later Plympton Burdock, father of the dead girl, received a card from a servant, glanced at it, nodded, and The Thinking Machine was ushered in.

"I should not have disturbed you, believe me, if the necessity for it had not been pressing in the interest of justice," the scientist apologized. "Just one or two questions, please."

Burdock regarded the little man curiously, and motioned to a seat.

"First," began The Thinking Machine, "was your daughter engaged to be married at the time of her— her death?"

"No," replied Burdock.

"She did receive attention, however?"

“Certainly. All girls of her age do. Really, Mr.— Mr.,” and he glanced at the card,— “Mr. Van Dusen, this matter is entirely beyond discussion. We believe, my wife and I, that death was due to natural causes, and have so informed the police. I hope it may go no further.”

The Thinking Machine looked at him sharply with some strange new expression in his squint eyes. “The investigation won’t stop now, Mr. Burdock,” he said coldly. “I don’t know your object in— in seeking to stop it.”

“I don’t want to stop it,” declared Burdock quickly. “We are convinced that no good can come of an investigation, because there is no ground for suspicion, and certainly it is not pleasant to have one’s family affairs constantly pawed over when it is a foregone conclusion that nothing will result except unpleasant notoriety which merely adds to the burden that we now have to bear.”

The Thinking Machine understood and nodded. It was almost an apology. “Well, just one more question, please,” he said. “What is the name of the man whose attentions to your daughter you in person forbade?”

“How do you know of that?” blazed Burdock quickly.

“What is his name?” repeated The Thinking Machine.

“I will not discuss the matter further with you,” was the reply.

“In the interests of justice I demand his name!” The Thinking Machine insisted.

Burdock stared at the slight figure before him with growing horror in his face. “You don’t mean to say you suspect—” He stopped. “My God! if I thought that I’d— How was she killed, if she was killed?” he concluded.

“His name, please,” urged The Thinking Machine. “If you don’t give it to me, you will place me under the necessity of asking the police to compel you to give it. I’d prefer not to.”

Burdock seemed not to heed the speech. His face had gone perfectly white, and he stood staring past the scientist, out the

window. His hands were clenched tightly and the fingers were working. "If he did! If he did!" he repeated fiercely. Suddenly he recovered himself and glared down at his visitor. "I beg your pardon," he said simply. His name is— is Paul K. Darrow."

"Of this city," said The Thinking Machine. It was not a question; it was a statement of fact.

"Of this city," repeated Burdock,— "at least formerly of this city. He left here, I am informed, four or five weeks ago."

The Thinking Machine went his way, leaving Burdock sitting with his face in his hands. A few minutes later he appeared in Detective Mallory's office at police headquarters. The officer was sitting with his feet on his desk, smoking furiously, with a dozen deep wrinkles in his brow. He hailed the scientist almost cordially, something unusual for him.

"What do you make of it?" he demanded as he arose.

"Let me see your directory for a moment, please," replied The Thinking Machine. He bent over the book, ran down a page or so of the D's, then finally looked up.

"We don't seem to be able to establish a crime, even," Detective Mallory confessed. "I had the thorns examined, and the chemist reports that there is not a trace of poison about them."

"Silly in the first place," remarked The Thinking Machine ungraciously enough. "Is the rose here?"

The detective produced it from a drawer of his desk, whereupon The Thinking Machine did several things with it which he didn't understand. First he waved it about in the air at arm's length, then took two steps forward and sniffed. Then he waved it about much closer to him and sniffed. Detective Mallory looked on in mingled curiosity and disgust. Finally the scientist held it close to his nose and sniffed, then examined the petals closely, after which he laid it on the desk again.

"And the box the rose was delivered in?" queried the scientist.

Silently the detective produced that. The Thinking Machine

sniffed at it cautiously, then turned it over to examine the handwriting on the address.

"Know who wrote this?" he inquired.

"Some one at the florist's," was the reply.

"Can you lend me a man for half an hour or so?" asked the scientist next.

"Oh, I suppose so," grumbled Detective Mallory. "But what's it all about, anyway?"

"Perhaps I may be able to tell you at the end of the half hour," The Thinking Machine assured him. "Meanwhile lend me the man you said I could have."

Detective Downey was called in, and the diminutive scientist led him into the hall, where he gave him some definite directions. Downey went out the front door at full speed. The Thinking Machine returned to Detective Mallory's private room, to find the officer sulking, like a boy.

"Where'd you send him?" he growled.

"Wait till he comes back and I'll tell you," was the reply. "It isn't necessary to get excited about something that we know nothing of. I'm saving you some excitement."

He dropped back into a chair and sat there idly twiddling his thumbs while Detective Mallory glared at him. After a few minutes the door was thrown open violently and Hutchinson Hatch entered. He was frankly excited.

"Well?" demanded The Thinking Machine without looking round.

"When she smelled that crushed kernel she fainted!" said Hatch explosively.

"Fainted?" repeated the scientist. "Fainted?" The tone was hardly one of surprise, and yet—

"Yes, she took one whiff, and screamed and went right over," the reporter rushed on.

"Dear me! Dear me!" commented The Thinking Machine. He sat still looking up. "Wait a few minutes," he advised. "Let's see what Downey gets."

At the end of fifteen minutes Downey returned. His chief glared at him curiously as he entered and handed a piece of paper to The Thinking Machine. That imperturbable man of science examined the paper closely, then handed it to Detective Mallory.

"Is that the handwriting on the flower box?" he asked.

Mallory, Downey, and Hatch compared it together. The verdict was unanimous: "Yes."

"Then the man who wrote it is the man you want," declared The Thinking Machine flatly. "His name is Paul K. Darrow. Detective Downey knows his address."

Two days passed. Professor Van Dusen stood beside his laboratory table poking idly at the dismembered legs of a frog with a short copper wire. Each time the point touched the flesh there was a spasmodic twitching of the limbs, a simulation of living contraction and extension. There beside the table Hutchinson Hatch found him.

"Watch this a moment, Mr. Hatch," requested the scientist. "It bears, in a way, on our problem in hand."

Then began a rhythmic swinging of his slender hand, not unlike the beat of the musician's baton, the wire touching the frog's legs at each downward swing. Hatch had seen a similar demonstration before.

"Watch the strokes," said the scientist, "and watch the legs after the twentieth."

"Fourteen, fifteen, sixteen," Hatch counted. Each time the wire touched, and each time came the spasmodic motion. "Seventeen, eighteen, nineteen, twenty."

The Thinking Machine, instead of touching the twenty-first time, held the wire aloft. At the instant it would have touched the flesh, according to the beat, there came the same quick, spasmodic twitch, and then the legs were still.

"You see the effect is precisely as if I had touched them the twenty-first time," explained The Thinking Machine, "and that, Mr. Hatch, is one of the things science doesn't attempt to

explain. It can be explained some day— it will be explained, but —” He paused. “Darrow hasn’t been captured yet?” he said.

“No; no trace of him yet,” was the reply. “The police have sent out a general alarm for him all over the country, and to-day Burdock increased the reward he offered from five thousand to ten thousand dollars.”

“One of my objections to dealing with the police is that they are prone to jump at conclusions,” remarked The Thinking Machine. “I didn’t say, of course, that Darrow was a murderer. He may have killed Miss Burdock,— he probably did,— but it isn’t conclusive at all. Still he is the next link in the chain, so his presence is necessary.”

Hatch gazed at him in amazement, and a hundred questions rushed to his lips. They were stilled by the sudden appearance in the doorway of a young man. A soft hat was pulled down over his eyes, and he was crouching as if about to spring. One hand, the right, was in his coat pocket, clutching something fiercely. His face was perfectly pallid, and roving, glittering eyes blazed with madness.

“Come in,” suggested The Thinking Machine calmly.

“I— I must talk to you, quick!” the young man burst out. “It’s a matter of the most vital importance, and—”

“I’m at your service, Mr. Darrow,” remarked The Thinking Machine pleasantly. “Have a seat.”

Darrow! Hatch was startled, made speechless, by the uncanny appearance of this man whom the police of the entire continent were seeking. Darrow was still crouching there in the doorway, staring at them.

“I risked everything to come here,” declared the young man — and there was a menace in his tone. “I was on the stoop about to ring the bell when I glanced back and saw Detective Mallory turn the corner. I didn’t wait to ring— the door was unfastened and I came on in. Mallory is probably coming here. I must talk to you— and I won’t be taken alive. Do you understand what I say?”

"Perfectly," replied The Thinking Machine. "Mr. Mallory won't see you. Come in out of the door."

"No tricks!" warned Darrow fiercely.

"No tricks. Sit down."

With furtive glances to right and left along the hall, the young man entered and dropped into a seat in a corner, facing them. There was a long, tense silence, and finally the door bell rang. Darrow half rose and made as if to take his right hand from his pocket.

"That's Mallory," remarked The Thinking Machine, and he started toward the door.

Darrow took one step forward, blocking his way.

"Understand, please," he began in a low, even voice. "I am utterly desperate, and I won't be taken! If you attempt to betray me, I—" He stopped.

The Thinking Machine walked round him to the door leading into the hall. Martha, his aged servant, was just passing.

"Mr. Mallory is at the door, Martha," said the scientist. "Tell him I am not in; but that I shall be at police headquarters within an hour, and Mr. Darrow will come with me."

He stepped back into the laboratory and closed the door, without even a glance at his visitor. They heard Martha open the front door, then they heard Mallory's heavy voice, finally Martha's answer, then the door was closed, and Martha's footsteps passed along the hall. Darrow suddenly rushed to the window and glanced out.

"All right, Mr. Darrow," remarked the little scientist, as he sat down. "I know now you are innocent; I know why you have been hiding out, I know why you came here to see me, and I understand too your deep grief; so we can come immediately to the vital things."

The young man turned and glared at the small, impassive figure. "You said I would be at police headquarters with you in an hour," he said accusingly.

"Certainly," agreed the scientist impatiently. "As an innocent

man you will go there of your own free will, with me.”

The young man dropped into a chair and sat there for a long time with his face in his hands. After awhile Hatch saw a teardrop trickle through the unsteady fingers, and the shoulders moved convulsively. The Thinking Machine sat with head tilted back, squinting upward and fingers at rest, tip to tip.

“This trouble between you and Mr. Burdock?” suggested the scientist at last.

“You don’t know the malignant hatred he has for me,” said Darrow suddenly. “He is not a man of great wealth, but he is a man of great power, great influence, and if I should fall into the hands of the police with the circumstantial case against me that now exists he would bring all that power and influence to bear against me, with the result that I should be railroaded to a felon’s grave. I don’t know just how he would do it; but he would do it. I’m afraid of him— that’s why I came here to see you when I wouldn’t dare go to the police. I won’t be taken by the police until I know I can prove my innocence; then I will surrender.”

The Thinking Machine nodded.

“The enmity existing between us is of years’ standing, and is not of importance here,” Darrow went on. “But I know this man’s power,— I have felt it all my life,— he has brought me to the edge of starvation half a dozen times, pursued me in every walk of life, until now— now if I should have to commit murder, he would be the victim. I’m telling you this because—”

“All this is of no consequence,” interrupted The Thinking Machine shortly. “Who poisoned the rose?”

“I don’t know,” replied Darrow helplessly.

“You must have some idea,” insisted The Thinking Machine.

“I did have an idea,” was the reply. “I went this morning to a place to see a— a person whom I intended to accuse openly of the crime, taking the chance of capture myself, much as I dreaded it; but there was no one there. The door was locked; a servant connected with the apartment house told me that the—

the person had not been there for a day or so."

The Thinking Machine turned quickly in his chair and glared at Darrow curiously.

"What's her name?" he demanded sharply.

"I don't know that she could have had anything to do with it," warned Darrow. "It seems awful to suggest such a thing, and yet—" He stopped. "I will go there with you to see her if you wish."

"Mr. Hatch," directed The Thinking Machine, "step into the next room there and telephone for a cab." He turned again to Darrow. "She threatened you, or Miss Burdock, I imagine?"

"Yes," said Darrow reluctantly.

"And now, please, one last question," said the little scientist. "What relation existed between you and Miss Burdock?"

"She was my wife," Darrow replied in a low voice. "We were secretly married four months ago."

"Um-m," mused the scientist. "I imagined as much."

Detective Mallory impatiently strode back and forth across his private office, his brain turbulent with conjecture. The telephone bell rang; The Thinking Machine was at the other end of the wire.

"Come at once and bring the medical examiner to the Craddock apartments!" commanded the irritable voice of the little scientist.

"Another murder?" demanded the detective, aghast.

"No, a suicide," was the reply. "Good by."

Detective Mallory and Medical Examiner Francis found The Thinking Machine, Hutchinson Hatch, and Paul K. Darrow in the sitting room of a small apartment on the fourth floor. Some sinister thing lay outstretched on a couch, covered with a sheet.

"Mr. Mallory, this is Mr. Darrow," the scientist remarked. "And here," he indicated the couch, "is the woman who murdered Miss Burdock, or rather Mrs. Darrow. Her name is Maria di Peculini. Here is a full confession in her own handwriting," he passed an envelope to the detective, "and here

are several torn pieces of paper which show how assiduously she practised before show forged Mr. Darrow's handwriting in addressing the box in which the red rose was sent to Miss— I should say Mrs. Darrow. I may add that Signorina di Peculini killed herself by inhaling hydrocyanic acid— perhaps you know it better as Prussic acid— in a bottle from which came the single drop, allowed to settle in the bloom of the rose, which killed Mrs.Darrow."

Detective Mallory remained standing still for a long time to take it all in. At last he opened the confession— only a dozen lines— and read it from end to end. It was a pitiful, disjointed, almost incoherent, revelation of a woman's distorted soul. She too had loved Darrow, and this had changed to hate when he drifted away from her. Then, when by her own hand she had removed the woman he had made his wife, and had sought subtly to place the blame on him by the little forgery,— then had come a revulsion of feeling. She loved again, and overcome by remorse sought relief in death.

"There was no mystery whatever as to the cause of death," The Thinking Machine told Detective Mallory and Hatch a little while later. "Murder by poison was obvious from the fact that both the woman and the dog were dead; and when we knew that there was no mark or scratch on the dog, and the autopsy revealed nothing, we knew by the simplest rule of logic that the poison had been inhaled. The most powerful poison to inhale is hydrocyanic acid,— it kills instantly,— therefore it occurred to me first. It is so powerful that it is never made pure, at least in this country. The strongest you can buy in a drug store, for instance, is about a two per cent solution. One drop of a stronger solution than that, on a rose bloom, would have killed Miss Burdock, and the dog if he sniffed at it, as he must have.

"Therefore, from the very first, we knew the manner of death. When we knew further that hydrocyanic acid is extremely volatile, we see how that single drop on the rose evaporated, was dissipated in the air, as the windows of the room where the

young woman was found were open. Still there was a faint odor of it left,— it smells precisely like crushed peach kernels,— and the maid Goodwin was unconsciously affected by it.

“Knowing these things,” he continued, “I went to the florist’s. Only twelve roses had been bought, paid for, and delivered from there, and the rose that killed Miss Burdock was the thirteenth rose. The roses went from the florist’s Mondays, Wednesdays, and Saturdays for four weeks, making twelve roses. They had all been delivered, as the receipt books there showed; but Miss Burdock was killed on Monday; therefore that was the thirteenth rose, and it didn’t come direct from the florist’s. It was sent by messenger, and the date didn’t correspond with any date in the receipt book; therefore it came from another source.

“Incidentally the fact that the roses were sent in that way,— that is one at a time without a card or suggestion of by whom they were sent,— suggested a clandestine arrangement with the girl. In other words, the roses were being sent by some one she knew, in all probability; but no one else must know. It was, I saw, a method of correspondence, I might say a love token of some sort, which would not attract attention at her home as a letter would.

“Thus I established a relationship between Miss Burdock and some one else— unknown. The logic of it all informed me that the reason that unknown didn’t communicate with her was because of some objection in her home. Her father! Do you see? I simply asked him about it, and instantly his hatred for a single individual came out, that individual being Mr. Darrow. Thus, things pointed toward Mr. Darrow, who was away. The letter to the florist was from Washington. The joints were fitting nicely.

“At police headquarters I saw the rose, and by cautious experiments detected a faint odor of peach kernels. Then I saw the handwriting on the box. It seemed to be a man’s; yet I knew by the receipt book there that it did not come from the florist’s, therefore was not addressed by anyone there. Did Mr. Darrow

address it? Mr. Downey got for me a sample of Mr. Darrow's writing (I don't know how he got it), and the two were compared. They seemed to be the same. This fact was connecting with all the others. Clandestine communication—poison—Darrow! Do you see? This development made Darrow's presence necessary, and I told you, Mr. Mallory, that he was the man we must find. Yet, from the fact that the handwriting on the box was his I had a first suggestion that he was not guilty of the crime. No intelligent man would address a box like that in his own handwriting.

"The matter rested at this point. Mr. Burdock accepted a murder theory and offered rewards, and then Mr. Darrow in person came to see me. The moment he stepped inside my door, to tell me an improbable story, I knew he was innocent. Mr. Burdock's hatred of him (the cause of the feud between them is not of consequence) told me why he had disappeared; and his mere appearance before me accounted for his not going to the police. So—so that's all. He told me of calling to see Signorina di Peculini, and she was not in. We came here, found the door locked, went in with a pass key, and found the things as I delivered them to you, Mr. Mallory." He stopped and sat silently staring for a little while.

"Briefly," he supplemented, "the woman who killed herself knew of the rose being sent regularly, then determined on revenge, bought one, and sent it herself after dropping a single drop of poison in the bloom. The wax paper which surrounded the flower prevented evaporation, and when it was opened—We know the rest."

Neither Detective Mallory nor Hatch spoke for a long time. But the reporter had one more question to ask; and at last he put it.

"That peach kernel that you sent me to Goodwin with—" he began.

"Oh, yes," interrupted The Thinking Machine. "That was a little psychological experiment, and the result of it disconcerted

me a little. It is one of the many things science doesn't fully understand, Mr. Hatch— like the little experiment with the frog. For instance, nitrite of amyl is a powerful heart stimulant. It smells precisely like banana oil. A person who has used nitrite of amyl, or to whom it has been administered without their knowledge by inhalation, is momentarily affected the same way when they come suddenly upon the odor of banana oil. Prussic acid has an odor like a peach kernel. I sent you to Goodwin, therefore, to prove definitely whether or not prussic acid had been used, and if she had inhaled it unconsciously. The result gave the proof I wanted."

12. The Roswell Tiara

HAD it not been for the personal interest of a fellow savant in the case it is hardly likely that the problem of the Roswell tiara would ever have come to the attention of The Thinking Machine. And had the problem not come to his attention it would inevitably have gone to the police. Then there would have been a scandal in high places, a disrupted home and everlasting unhappiness to at least four persons. Perhaps it was an inkling of this latter possibility that led The Thinking Machine to take initial steps in the solution of a mystery which seemed to have only an obvious ending.

When he was first approached in the matter The Thinking Machine was in his small laboratory from which had gone forth truths that shocked and partially readjusted at least three of the exact sciences. His enormous head, with its long yellow hair, bobbed up and down over a little world of chemical apparatus, and the narrow, squint eyes peered with disagreeable satisfaction at a blue flame which spouted from a brazier. Martha, an aged woman who was the scientist's household staff, entered. She was not tall yet she towered commandingly above the slight figure of her eminent master. Professor Van Dusen

turned to her impatiently.

"Well? Well?" he demanded shortly.

Martha handed him two cards. On one was the name Charles Wingate Field, and on the other Mrs. Richard Watson Roswell. Charles Wingate Field was a name to juggle with in astronomy— The Thinking Machine knew him well; the name of the woman was strange to him.

"The gentleman said it was very important," Martha explained, "and the poor lady was crying."

"What about?" snapped the scientist.

"Lord, sir, I didn't ask her," exclaimed Martha.

"I'll be there in a moment."

A few minutes later The Thinking Machine appeared at the door of the little reception room, which he regarded as a sort of useless glory, and the two persons there arose to meet him. One was a woman apparently of forty-five years, richly gowned, splendid of figure and with a distinct, matured beauty. Her eyes showed she had been weeping but now her tears were dried and she caught herself staring curiously at the pallid face, the keen blue eyes and the long slender hands of the scientist. The other person was Mr. Field.

There was an introduction and the scientist motioned them to seats. He himself dropped into a large cushioned chair, and looked from one to the other with a question in his eyes.

"I have been telling Mrs. Roswell some of the things you have done, Van Dusen," began Mr. Field. "Now I have brought her to you because here is a mystery, a problem, an abstruse problem, and it isn't the kind of thing one cares to take to the police. If you—"

"If Mrs. Roswell will tell me about it?" interrupted the scientist. He seemed to withdraw even further into the big chair. With head tilted back, eyes squinting steadily upward and white fingers pressed tip to tip he waited.

"Briefly," said Mrs. Roswell, "it has to do with the disappearance of a single small gem from a diamond tiara which

I had locked in a vault— a vault of which no living person knew the combination except myself. Because of family reasons I could not go to the police, and—”

“Please begin at the beginning,” requested The Thinking Machine. “Remember I know nothing whatever of you or your circumstances.”

It was not unnatural that Mrs. Roswell should be surprised. Her social reign was supreme, her name was constantly to be seen in the newspapers, her entertainments were gorgeous, her social doings on an elaborate scale. She glanced at Mr. Field inquiringly, and he nodded.

“My first husband was Sidney Grantham, an Englishman,” she explained. “Seven years ago he left me a widow with one child— a son Arthur— now twenty-two years old and just out of Harvard. Mr. Grantham died intestate and his whole fortune together with the family jewels, came to me and my son. The tiara was among these jewels.

“A year ago I was married to Mr. Roswell. He, too, is a man of wealth, with one daughter, Jeanette, now nineteen years old. We live on Commonwealth Avenue and while there are many servants I know it impossible—”

“Nothing is impossible, Madam,” interposed The Thinking Machine positively. “Don’t say that please. It annoys me exceedingly.”

Mrs. Roswell stared at him a moment then resumed:

“My bed room is on the second floor. Adjoining and connecting with it is the bed room of my step-daughter. This connecting door is always left unlocked because she is timid and nervous. I keep the door from my room into the hall bolted at night and Jeanette keeps the hall door of her room similarly fastened. The windows, too, are always secured at night in both rooms.

“My maid and my daughter’s maid both sleep in the servants’ quarters. I arranged for this because, as I was about to state, I keep about half a million dollars worth of jewels in my

bed room locked in a small vault built into the wall. This little vault opens with a combination. Not one person knows that combination except myself. It so happens that the man who set it is dead.

“Last night, Thursday, I attended a reception and wore the tiara. My daughter remained at home. At four o’clock this morning I returned. The maids had retired; Jeanette was sleeping soundly. I took off the tiara and placed it, with my other jewels, in the vault. I know that the small diamond now missing was in its setting at that time. I locked the vault, shot the bolt and turned the combination. Afterwards I tried the vault door to make certain it was fastened. It was then— then—”

For no apparent reason Mrs. Roswell suddenly burst into tears. The two men were silent and The Thinking Machine looked at her uneasily. He was not accustomed to women anyway, and women who wept were hopelessly beyond him.

“Well, well, what happened?” he asked brusquely at last.

“It was perhaps five o’clock when I fell asleep,” Mrs. Roswell continued after a moment. “About twenty minutes later I was aroused by a scream of ‘Jeanette, Jeanette, Jeanette.’ Instantly I was fully awake. The screaming was that of a cockatoo which I have kept in my room for many years. It was in its usual place on a perch near the window, and seemed greatly disturbed.

“My first impression was that Jeanette had been in the room. I went into her room and even shook her gently. She was asleep so far as I could ascertain. I returned to my own room and then was amazed to see the vault door standing open. All the jewels and papers from the vault were scattered over the floor. My first thought was of burglars who had been frightened away by the cockatoo. I tried every door and every window in both Jeanette’s room and mine. Everything was securely fastened.

“When I picked up the tiara I found that a diamond was missing. It had evidently been torn out of the setting. I searched for it on the floor and inside the vault. I found nothing. Then of course I could only associate its disappearance with some act of

— of my step-daughter's. I don't believe the cockatoo would have called her name if she had not been in my room. Certainly the bird could not have opened the vault. Therefore I— I—"

There was a fresh burst of tears and for a long time no one spoke.

"Do you burn a night lamp?" asked The Thinking Machine finally.

"Yes," replied Mrs. Roswell.

"Did the bird ever disturb you at any time previous to last night— that is I mean at night?"

"No."

"Has it any habit of speaking the word 'Jeanette.' "

"No. I don't think I ever heard it pronounce the word more than three or four times before. It is stupid and seems to dislike her."

"Was there anything else missing— any letter or paper or jewels?"

"Nothing but the one small stone."

The Thinking Machine took down a volume of an encyclopædia which he studied for a moment.

"Have you any record anywhere of that combination?" he inquired.

"Yes, but it would have been impossi—"

The scientist made a little impatient gesture with his hands.

"Where is this record?"

"The combination begins with the figure three," Mrs. Roswell hastened to explain. "I jotted it down in a French copy of '*Les Misérables*' which I keep in my room with a few other books. The first number, three, appears on Page 3, the second on Page 33, and the third on Page 333. The combination in full is 3-14-9. No person could possibly associate the numbers in the book with the combination even if they should notice them."

Again there was the quick, impatient gesture of the hands. Mr. Field interpreted it aright as annoyance.

"You say your daughter is nervous," The Thinking Machine

said. "Is it serious? Is there any somnambulistic tendency that you know of?"

Mrs. Roswell flushed a little.

"She has a nervous disorder," she confessed at last. "But I know of no somnambulistic tendency. She has been treated by half a dozen specialists. Two or three times we feared— feared —"

She faltered and stopped. The Thinking Machine squinted at her oddly, then turned his eyes toward the ceiling again.

"I understand," he said. "You feared for her sanity. And she may have the sleep-walking habit without your knowledge?"

"Yes, she may have," faltered Mrs. Roswell.

"And now your son. Tell me something about him. He has an allowance, I suppose? Is he inclined to be studious or other wise? Has he any love affair?"

Again Mrs. Roswell flushed. Her entire manner resented this connection of her son's name with the affair. She looked inquiringly at Mr. Field.

"I don't see—" Mr. Field began, remonstratingly.

"My son could have nothing—" Mrs. Roswell interrupted.

"Madam, you have presented an abstract problem," broke in The Thinking Machine impatiently. "I presumed you wanted a solution. Of course, if you do not—" and he made as if to arise.

"Please pardon me," said Mrs. Roswell quickly, almost tearfully. "My son has an allowance of ten thousand a year; my daughter has the same. My son is inclined to be studious along political lines, while my daughter is interested in charity. He has no love affair except— except a deep attachment for his step-sister. It is rather unfortunate—"

"I know, I know," interrupted the scientist again. "Naturally you object to any affection in that direction because of a fear for the girl's mental condition. May I ask if there is any further prejudice on your part to the girl?"

"Not the slightest," said Mrs. Roswell quickly. "I am deeply attached to her. It is only a fear for my son's happiness."

"I presume your son understands your attitude in the matter?"

"I have tried to intimate it to him without saying it openly," she explained. "I don't think he knows how serious her condition has been, and is for that matter."

"Of your knowledge has either your son or the girl ever handled or looked into the book where the combination is written?"

"Not that I know of, or ever heard of."

"Or any of your servants?"

"No."

"Does it happen that you have this tiara with you?"

Mrs. Roswell produced it from her hand bag. It was a glittering, glistening thing, a triumph of the jeweller's art, intricate and marvellously delicate in conception yet wonderfully heavy with the dead weight of pure gold. A single splendid diamond of four or five carats blazed at its apex, and radiating from this were strings of smaller stones. One was missing from its setting. The prongs which had held it were almost straight from the force used to pry out the stone. The Thinking Machine studied the gorgeous ornament in silence.

"It is possible for you to clear up this matter without my active interference," he said at last. "You do not want it to become known outside your own family, therefore you must watch for this thief— yourself in person. Take no one into your confidence, least of all your son and step-daughter. Given the same circumstances, the A B C rules of logic— and logic is inevitable— indicate that another may disappear."

Mrs. Roswell was frankly startled, and Mr. Field leaned forward with eager interest.

"If you see how this second stone disappears," continued The Thinking Machine musingly, without heeding in the slightest the effect of his words on the others, "you will know what became of the first and will be able to recover both."

"If another attempt is to be made," exclaimed Mrs. Roswell

apprehensively, "would it not be better to send the jewels to a safe deposit? Would I not be in danger myself?"

"It is perfectly possible that if the jewels were removed the vault would be opened just the same," said The Thinking Machine quietly, enigmatically while his visitors stared. "Leave the jewels where they are. You may be assured that you are in no personal danger whatever. If you learn what you seek you need not communicate with me again. If you do not I will personally investigate the matter. On no condition whatever interrupt or attempt to prevent anything that may happen."

Mr. Field arose; the interview seemed to be at an end. He had one last question.

"Have you any theory of what actually happened?" he asked. "How was the jewel taken?"

"If I told you you wouldn't believe it," said The Thinking Machine, curtly. "Good day."

It was on the third day following that Mrs. Roswell hurriedly summoned The Thinking Machine to her home. When he arrived she was deeply agitated.

"Another of the small stones has been stolen from the tiara," she told him hurriedly. "The circumstances were identical with those of the first theft, even to the screaming of the cockatoo. I watched as you suggested, have been watching each night but last night was so weary that I fell asleep. The cockatoo awoke me. Why would Jeanette—"

"Let me see the apartments," suggested the scientist. Thus he was ushered into the room which was the centre of the mystery. Again he examined the tiara, then studied the door of the vault. Afterwards he casually picked up and verified the record of the combination, locked and unlocked the vault twice after which he examined the fastenings of the door and the windows. This done he went over and peered inquisitively at the cockatoo on its perch.

The bird was a giant of its species, pure white, with a yellow crest which drooped in exaggerated melancholy. The cockatoo

resented the impertinence and had not The Thinking Machine moved quickly would have torn off his spectacles.

A door from another room opened and a girl— Jeanette— entered. She was tall, slender and exquisitely proportioned with a great cloud of ruddy gold hair. Her face was white with the dead white of illness and infinite weariness was in her eyes. She was startled at sight of a stranger.

“I beg your pardon,” she said. “I didn’t know—” and started to retire.

Professor Van Dusen acknowledged an introduction to her by a glance and a nod then turned quickly and looked at the cockatoo which was quarrelling volubly with crest upraised. Mrs. Roswell’s attention, too, was attracted by the angry attitude of her pet. She grasped the scientist’s arm quickly.

“The bird!” she exclaimed.

“Jeanette, Jeanette, Jeanette,” screamed the cockatoo, shrilly.

Jeanette dropped wearily into a chair, heeding neither the tense attitude of her step-mother nor the quarrellings of the cockatoo.

“You don’t sleep well, Miss Roswell?” asked The Thinking Machine.

“Oh, yes,” the girl replied. “I seem to sleep enough, but I am always very tired. And I dream constantly, nearly always my dreams are of the cockatoo. I imagine he calls my name.”

Mrs. Roswell looked quickly at Professor Van Dusen. He crossed to the girl and examined her pulse.

“Do you read much?” he asked. “Did you ever read this?” and he held up the copy of “*Les Misérables*.”

“I don’t read French well enough,” she replied. “I have read it in English.”

The conversation was desultory for a time and finally The Thinking Machine arose. In the drawing room down stairs he gave Mrs. Roswell some instructions which amazed her exceedingly, and went his way.

Jeanette retired about eleven o'clock that night and in an hour was sleeping soundly. But Mrs. Roswell was up when the clock struck one. She had previously bolted the doors of the two rooms and fastened the windows. Now she arose from her seat, picked up a small jar from her table, and crept cautiously, even stealthily to the bed whereon Jeanette lay, pale almost as the sheets. The girl's hands were outstretched in an attitude of utter exhaustion. Mrs. Roswell bent low over them a moment, then stole back to her own room. Half an hour later she was asleep.

Early next morning Mrs. Roswell 'phoned to The Thinking Machine, and they talked for fifteen minutes. She was apparently explaining something and the scientist gave crisp, monosyllabic answers. When the wire was disconnected he called up two other persons on the 'phone. One of them was Dr. Henderson, noted alienist; the other was Dr. Forrester, a nerve specialist of international repute. To both he said:

"I want to show you the most extraordinary thing you have ever seen."

THE DIM LIGHT of the night lamp cast strange, unexpected shadows, half revealing yet half hiding, the various objects in Mrs. Roswell's room. The bed made a great white splotch in the shadows, and the only other conspicuous point was the bright silver dial of the jewel vault. From the utter darkness of Jeanette Roswell's room came the steady, regular breathing of a person asleep; the cockatoo was gone from his perch. Outside was the faint night-throb of a city at rest. In the distance a clock boomed four times.

Finally the stillness was broken by a faint creaking, the tread of a light foot and Jeanette, robed mystically in white, appeared in the door of her room. Her eyes were wide open, staring, her face was chalk-like, her hair tumbled in confusion about her head and here and there was flecked with the glint of the night-light.

The girl paused and from somewhere in the shadow came a

quick gasp, instantly stifled. Then, unhearing, she moved slowly but without hesitation across the room to a table whereon lay several books. She stooped over this and when she straightened up again she held "*Les Misérables*" in her hand. Several times the leaves fluttered through her fingers, and thrice she held the book close to her eyes in the uncertain light, then nodded as if satisfied and carefully replaced it as she had found it.

From the table she went straight toward the silver dial which gleamed a reflection of light. As she went another figure detached itself noiselessly from the shadows and crept toward her from behind. As the girl leaned forward to place her hand on the dial a steady ray of light from an electric bell struck her full in the face. She did not flinch nor by the slightest sign show that she was aware of it. From her face the light travelled to each of her hands in turn.

The dial whirled in her fingers several times and then stopped with a click, the bolt snapped and the vault door opened. Conspicuously in front lay the tiara glittering mockingly. Again from the shadows there came a quick gasp as the girl lifted the regal toy and tumbled it on the floor. Again the gasp was stifled.

With quick moving, nervous hands she dragged the jewels out permitting them to fall. She seemed to be seeking something else, seeking vainly, apparently, for after awhile she rose with a sigh, staring into the vault hopelessly. She stood thus for a dozen heart beats, then the low, guarded voice of the second figure was heard— low yet singularly clear of enunciation.

"What is it you seek?"

"The letters," she replied dreamily yet distinctly. There was a pause and she turned suddenly as if to re-enter her room. As she did so the light again flashed in her glassy eyes, and the second figure laid a detaining hand on her arm. She started a little, staggered, her eyes closed suddenly to open again in abject terror as she stared into the face before her. She screamed

wildly, piercingly, gazed a moment then sank down fainting.

“Dr. Forrester, she needs you now.”

It was the calm, unexcited, impersonal voice of The Thinking Machine. He touched a button in the wall and the room was flooded with light. Drs. Forrester and Henderson, suddenly revealed with Mr. and Mrs. Roswell and Arthur Grantham, came forward and lifted the senseless body. Grantham, too, rushed to her with pained, horror-stricken face. Mrs. Roswell dropped limply into a chair; her husband stood beside her helplessly stroking her hair.

“It’s all right,” said The Thinking Machine. “It’s only shock.”

Grantham turned on him savagely, impetuously and danger lay in the boyish eyes.

“It’s a lie!” he said fiercely. “She didn’t steal those diamonds.”

“How do you know?” asked The Thinking Machine coldly.

“Because— because I took them myself,” the young man blurted. “If I had known there was to be any such trick as this I should never have consented to it.”

His mother stared up at him in open eyed wonder.

“How did you remove the jewels from the setting?” asked The Thinking Machine, still quietly.

“I— I did it with my fingers.”

“Take out one of these for me,” and The Thinking Machine offered him the tiara.

Grantham snatched it from his hand and tugged at it frantically while the others stared, but each jewel remained in its setting. Finally he sank down on the bed beside the still figure of the girl he loved. His face was crimson.

“Your intentions are good, but you’re a fool,” commented The Thinking Machine tartly. “I know you did not take the jewels — you have proven it yourself— and I may add that Miss Roswell did not take them.”

The stupefied look on Grantham’s face was reflected in those of his mother and step-father. Drs. Forrester and

Henderson were busy with the girl heedless of the others.

"Then where are the jewels?" Mrs. Roswell demanded.

The Thinking Machine turned and squinted at her with a slight suggestion of irritable reproach in his manner.

"Safe and easily found," he replied impatiently. He lifted the unconscious girl's hand and allowed his fingers to rest on her pulse for a moment, then turned to the medical men. "Would you have believed that somnambulistic sub-consciousness would have taken just this form?" he asked curtly.

"Not unless I had seen it," replied Dr. Henderson, frankly.

"It's a remarkable mental condition— remarkable," commented Dr. Forrester.

It was a weirdly simple recital of the facts as he had found them that The Thinking Machine told downstairs in the drawing room an hour later. Dawn was breaking over the city, and the faces of those who had waited and watched for just what had happened showed weariness. Yet they listened, listened with all their faculties as the eminent scientist talked. Young Grantham sat white faced and nervous; Jeanette was sleeping quietly upstairs with her maid on watch.

"The problem in itself was not a difficult one," The Thinking Machine began as he lounged in a big chair with eyes upturned. "The unusual, not to say strange features, which seemed to make it more difficult served to simplify it as a matter of fact. When I had all the facts I had the solution in the main. It was adding a fact to a fact to get a result as one might add two and two to get four.

"In the first place burglars were instantly removed as a possibility. They would have taken everything, not one small stone. Then what? Mr. Grantham here? His mother assured me that he was quiet and studious of habit, and had an allowance of ten thousand a year. There was no need for him to steal. Then remember always that he no more than anyone else could have entered the rooms. The barred doors excluded the servants too.

"Then we had only you, Mrs. Roswell, and your step-

daughter. There would have been no motive for you to remove the jewel unless your object was to throw suspicion on the girl. I didn't believe you capable of this. So there was left somnambulism or a wilful act of your step-daughter's. There was no motive for the last— your daughter has ten thousand a year. Then sleep-walking alone remained. Sleep-walking it was. I am speaking now of the opening of the vault."

Grantham leaned forward in his chair gripping its arms fiercely. The mother saw, and one of her white hands was laid gently on his. He glanced at her impatiently then turned to The Thinking Machine. Mr. Roswell, the alienist, and the specialist, followed the cold clear logic as if fascinated.

"If somnambulism, then who was the somnambulist?" The Thinking Machine resumed after a moment. "It did not seem to be you, Mrs. Roswell. You are not of a nervous temperament; you are a normal healthy woman. If we accept as true your statement that you were aroused in bed by the cockatoo screaming 'Jeanette' we prove that you were not the somnambulist. Your step-daughter? She suffered from a nervous disorder so pronounced that you had fears for her mental condition. With everyone else removed she was the somnambulist. Even the cockatoo said that.

"Now let us see how it would have been possible to open the vault. We admit that no one except yourself knew the combination. But a record of that combination did appear therefore it was possible for some one else to learn it. Your step-daughter does not know that combination when she is in a normal condition. I won't say that she knows it when in the somnambulistic state, but I will say that when in that condition *she knows where there is a record of it*. How she learned this I don't know. It is not a legitimate part of the problem.

"Be that as it may she was firmly convinced that something she was seeking, something of deep concern to her, was in that vault. It might *not* have been in the vault but in her abnormal condition she thought it was. She was not after jewels— her

every act even tonight showed that. What else? Letters. I knew it was a letter, or letters, before she said so herself. What was in these letters is of no consequence here. You, Mrs. Roswell, considered it your duty to hide them— possibly destroy them.”

Both husband and son turned on Mrs. Roswell inquiringly. She stared from one to the other helplessly, pleadingly.

“The letters contained—” she started to explain.

“Never mind that, it’s none of our business,” curtly interrupted The Thinking Machine. “If there is a family skeleton, it’s yours.”

“I won’t believe anything against her,” burst out Grantham passionately.

“Even with the practical certain knowledge that Miss Roswell *did* open the vault,” The Thinking Machine resumed placidly, “and that she opened it in precisely the manner you saw tonight, I took one more step to prove it. This was after the second stone had disappeared. I instructed Mrs. Roswell to place a little strawberry jam on her step-daughter’s hands while she was sleeping. If this jam appeared on the book the next time the vault was found open it proved finally and conclusively that Miss Roswell opened it. I chose strawberry jam because it was unusual. I dare say no one who might have a purpose in opening that vault would go around with strawberry jam on his hands. This jam did appear on the book, and then I summoned you, Dr. Forrester, and you, Dr. Henderson. You know the rest. I may add that Mr. Grantham in attempting to take the theft upon himself merely made a fool of himself. No person with bare fingers could have torn out one of the stones.”

There was a long pause, and deep silence while the problem as seen by The Thinking Machine was considered in the minds of his hearers. Grantham at last broke the silence.

“Where are the two stones that are missing?”

“Oh yes,” said The Thinking Machine easily, as if that trivial point had escaped him. “Mrs. Roswell, will you please have the cockatoo brought in?” he asked, and then explained to the

others: "I had the bird removed from the room tonight for fear it would interrupt at the wrong moment."

Mrs. Roswell arose and gave some instructions to a servant who was waiting outside. He went away and returned later with a startled expression on his graven face.

"The bird is dead, madam," he reported.

"Dead?" repeated Mrs. Roswell.

"Good!" said The Thinking Machine rubbing his hands briskly together. "Bring it in anyhow."

"Why, what could have killed it?" asked Mrs. Roswell, bewildered.

"Indigestion," replied the scientist. "Here is the thief."

He turned suddenly to the servant who had entered bearing the cockatoo in state on a silver tray.

"Who? I?" gasped the astonished servant.

"No, this fellow," replied The Thinking Machine as he picked up the dead bird. "He had the opportunity; he had the pointed instrument necessary to pry out a stone— note the sharp hooked bill; and he had the strength to do it. Besides all that he confessed a fondness for bright things when he tried to snatch my eyeglasses. He saw Miss Roswell drop the tiara on the floor, its brightness fascinated him. He pried out the stone and swallowed it. It pained him, and he screamed 'Jeanette.' This same thing happened on two occasions. Your encyclopædia will tell you that the cockatoo has more strength in that sharp beak than you could possibly exercise with two fingers unless you had a steel instrument."

Later that day The Thinking Machine sent to Mrs. Roswell the two missing diamonds, the glass head of a hat pin and a crystal shoe button which he had recovered from the dead bird. His diagnosis of the case was acute indigestion.

13. The Mystery of the Scarlet Thread

THE THINKING MACHINE— Professor Augustus S. F. X. Van Dusen, Ph. D, LL. D., F. R. S., M. D., etc., scientist and logician— listened intently and without comment to a weird, seemingly inexplicable story. Hutchinson Hatch, reporter, was telling it. The bowed figure of the savant lay at ease in a large chair. The enormous head with its bushy yellow hair was thrown back, the thin, white fingers were pressed tip to tip and the blue eyes, narrowed to mere slits, squinted aggressively upward. The scientist was in a receptive mood.

“From the beginning, every fact you know,” he had requested.

“It’s all out in the Back Bay,” the reporter explained. “There is a big apartment house there, a fashionable establishment, in a side street, just off Commonwealth Avenue. It is five stories in all, and is cut up into small suites, of two and three rooms with a bath. These suites are handsomely, even luxuriously furnished, and are occupied by people who can afford to pay big rents. Generally these are young unmarried men, although in several cases they are husband and wife. It is a house of every modern improvement, elevator service, hall boys, liveried door men, spacious corridors and all that. It has both the gas and electric systems of lighting. Tenants are at liberty to use either or both.

“A young broker, Weldon Henley, occupies one of the handsomest of these suites, being on the second floor, in front. He has met with considerable success in the Street. He is a bachelor and lives there alone. There is no personal servant. He dabbles in photography as a hobby, and is said to be remarkably expert.

“Recently there was a report that he was to be married this Winter to a beautiful Virginia girl who has been visiting Boston from time to time, a Miss Lipscomb— Charlotte Lipscomb, of Richmond. Henley has never denied or affirmed this rumor, although he has been asked about it often. Miss Lipscomb is impossible of access even when she visits Boston. Now she is in Virginia, I understand, but will return to Boston later in the

season.”

The reporter paused, lighted a cigarette and leaned forward in his chair, gazing steadily into the inscrutable eyes of the scientist.

“When Henley took the suite he requested that all the electric lighting apparatus be removed from his apartments,” he went on. “He had taken a long lease of the place, and this was done. Therefore he uses only gas for lighting purposes, and he usually keeps one of his gas jets burning low all night.”

“Bad, bad for his health,” commented the scientist.

“Now comes the mystery of the affair,” the reporter went on. “It was five weeks or so ago Henley retired as usual— about midnight. He locked his door on the inside— he is positive of that— and awoke about four o’clock in the morning nearly asphyxiated by gas. He was barely able to get up and open the window to let in the fresh air. The gas jet he had left burning was out, and the suite was full of gas.”

“Accident, possibly,” said The Thinking Machine. “A draught through the apartments; a slight diminution of gas pressure; a hundred possibilities.”

“So it was presumed,” said the reporter. “Of course it would have been impossible for—”

“Nothing is impossible,” said the other, tartly. “Don’t say that. It annoys me exceedingly.”

“Well, then, it seems highly improbable that the door had been opened or that anyone came into the room and did this deliberately,” the newspaper man went on, with a slight smile. “So Henley said nothing about this; attributed it to accident. The next night he lighted his gas as usual, but he left it burning a little brighter. The same thing happened again.”

“Ah,” and The Thinking Machine changed his position a little. “The second time.”

“And again he awoke just in time to save himself,” said Hatch. “Still he attributed the affair to accident, and determined to avoid a recurrence of the affair by doing away with the gas at

night. Then he got a small night lamp and used this for a week or more.”

“Why does he have a light at all?” asked the scientist, testily.

“I can hardly answer that,” replied Hatch. “I may say, however, that he is of a very nervous temperament, and gets up frequently during the night. He reads occasionally when he can’t sleep. In addition to that he has slept with a light going all his life; it’s a habit.”

“Go on.”

“One night he looked for the night lamp, but it had disappeared— at least he couldn’t find it— so he lighted the gas again. The fact of the gas having twice before gone out had been dismissed as a serious possibility. Next morning at five o’clock a bell boy, passing through the hall, smelled gas and made a quick investigation. He decided it came from Henley’s place, and rapped on the door. There was no answer. It ultimately developed that it was necessary to smash in the door. There on the bed they found Henley unconscious with the gas pouring into the room from the jet which he had left lighted. He was revived in the air, but for several hours was deathly sick.”

“Why was the door smashed in?” asked The Thinking Machine. “Why not unlocked?”

“It was done because Henley had firmly barred it,” Hatch explained. “He had become suspicious, I suppose, and after the second time he always barred his door and fastened every window before he went to sleep. There may have been a fear that some one used a key to enter.”

“Well?” asked the scientist. “After that?”

“Three weeks or so elapsed, bringing the affair down to this morning,” Hatch went on. “Then the same thing happened a little differently. For instance, after the third time the gas went out Henley decided to find out for himself what caused it, and so expressed himself to a few friends who knew of the mystery. Then, night after night, he lighted the gas as usual and kept watch. It was never disturbed during all that time, burning

steadily all night. What sleep he got was in daytime.

"Last night Henley lay awake for a time; then, exhausted and tired, fell asleep. This morning early he awoke; the room was filled with gas again. In some way my city editor heard of it and asked me to look into the mystery."

That was all. The two men were silent for a long time, and finally The Thinking Machine turned to the reporter.

"Does anyone else in the house keep gas going all night?" he asked.

"I don't know," was the reply. "Most of them, I know, use electricity."

"Nobody else has been overcome as he has been?"

"No. Plumbers have minutely examined the lighting system all over the house and found nothing wrong."

"Does the gas in the house all come through the same meter?"

"Yes, so the manager told me. I supposed it possible that some one shut it off there on these nights long enough to extinguish the lights all over the house, then turned it on again. That is, presuming that it was done purposely. Do you think it was an attempt to kill Henley?"

"It might be," was the reply. "Find out for me just who in the house uses gas; also if anyone else leaves a light burning all night; also what opportunity anyone would have to get at the meter, and then something about Henley's love affair with Miss Lipscomb. Is there anyone else? If so, who? Where does he live? When you find out these things come back here."

THAT AFTERNOON at one o'clock Hatch returned to the apartments of The Thinking Machine, with excitement plainly apparent on his face.

"Well?" asked the scientist.

"A French girl, Louise Regnier, employed as a maid by Mrs. Standing in the house, was found dead in her room on the third floor to-day at noon," Hatch explained quickly. "It looks like

suicide.”

“How?” asked The Thinking Machine.

“The people who employed her— husband and wife— have been away for a couple of days,” Hatch rushed on. “She was in the suite alone. This noon she had not appeared, there was an odor of gas and the door was broken in. Then she was found dead.”

“With the gas turned on?”

“With the gas turned on. She was asphyxiated.”

“Dear me, dear me,” exclaimed the scientist. He arose and took up his hat. “Let’s go and see what this is all about.”

WHEN Professor Van Dusen and Hatch arrived at the apartment house they had been preceded by the Medical Examiner and the police. Detective Mallory, whom both knew, was moving about in the apartment where the girl had been found dead. The body had been removed and a telegram sent to her employers in New York.

“Too late,” said Mallory, as they entered.

“What was it, Mr. Mallory?” asked the scientist.

“Suicide,” was the reply. “No question of it. It happened in this room,” and he led the way into the third room of the suite. “The maid, Miss Regnier, occupied this, and was here alone last night. Mr. and Mrs. Standing, her employers, have gone to New York for a few days. She was left alone, and killed herself.”

Without further questioning The Thinking Machine went over to the bed, from which the girl’s body had been taken, and, stooping beside it, picked up a book. It was a novel by “The Duchess.” He examined this critically, then, standing on a chair, he examined the gas jet. This done, he stepped down and went to the window of the little room. Finally The Thinking Machine turned to the detective.

“Just how much was the gas turned on?” he asked.

“Turned on full,” was the reply.

“Were both the doors of the room locked?”

"Both, yes."

"Any cotton, or cloth, or anything of the sort stuffed in the cracks of the window?"

"No. It's a tight-fitting window, anyway. Are you trying to make a mystery out of this?"

"Cracks in the doors stuffed?" The Thinking Machine went on.

"No." There was a smile about the detective's lips.

The Thinking Machine, on his knees, examined the bottom of one of the doors, that which led into the hall. The lock of this door had been broken when employees burst into the room. Having satisfied himself here and at the bottom of the other door, which connected with the bedroom adjoining, The Thinking Machine again climbed on a chair and examined the doors at the top.

"Both transoms closed, I suppose?" he asked.

"Yes," was the reply. "You can't make anything but suicide out of it," explained the detective. "The Medical Examiner has given that as his opinion— and everything I find indicates it."

"All right," broke in The Thinking Machine abruptly. "Don't let us keep you."

After awhile Detective Mallory went away. Hatch and the scientist went down to the office floor, where they saw the manager. He seemed to be greatly distressed, but was willing to do anything he could in the matter.

"Is your night engineer perfectly trustworthy?" asked The Thinking Machine.

"Perfectly," was the reply. "One of the best and most reliable men I ever met. Alert and wide-awake."

"Can I see him a moment? The night man, I mean?"

"Certainly," was the reply. "He's downstairs. He sleeps there. He's probably up by this time. He sleeps usually till one o'clock in the daytime, being up all night."

"Do you supply gas for your tenants?"

"Both gas and electricity are included in the rent of the

suites. Tenants may use one or both."

"And the gas all comes through one meter?"

"Yes, one meter. It's just off the engine room."

"I suppose there's no way of telling just who in the house uses gas?"

"No. Some do and some don't. I don't know."

This was what Hatch had told the scientist. Now together they went to the basement, and there met the night engineer, Charles Burlingame, a tall, powerful, clean-cut man, of alert manner and positive speech. He gazed with a little amusement at the slender, almost childish figure of The Thinking Machine and the grotesquely large head.

"You are in the engine room or near it all night every night?" began The Thinking Machine.

"I haven't missed a night in four years," was the reply.

"Anybody ever come here to see you at night?"

"Never. It's against the rules."

"The manager or a hall boy?"

"Never."

"In the last two months?" The Thinking Machine persisted.

"Not in the last two years," was the positive reply. "I go on duty every night at seven o'clock, and I am on duty until seven in the morning. I don't believe I've seen anybody in the basement here with me between those hours for a year at least."

The Thinking Machine was squinting steadily into the eyes of the engineer, and for a time both were silent. Hatch moved about the scrupulously clean engine room and nodded to the day engineer, who sat leaning back against the wall. Directly in front of him was the steam gauge.

"Have you a fireman?" was The Thinking Machine's next question.

"No. I fire myself," said the night man. "Here's the coal," and he indicated a bin within half a dozen feet of the mouth of the boiler.

"I don't suppose you ever had occasion to handle the gas

meter?" insisted The Thinking Machine.

"Never touched it in my life," said the other. "I don't know anything about meters, anyway."

"And you never drop off to sleep at night for a few minutes when you get lonely? Doze, I mean?"

The engineer grinned good-naturedly.

"Never had any desire to, and besides I wouldn't have the chance," he explained. "There's a time check here," — and he indicated it. "I have to punch that every half hour all night to prove that I have been awake."

"Dear me, dear me," exclaimed The Thinking Machine, irritably. He went over and examined the time check— a revolving paper disk with hours marked on it, made to move by the action of a clock, the face of which showed in the middle.

"Besides there's the steam gauge to watch," went on the engineer. "No engineer would dare go to sleep. There might be an explosion."

"Do you know Mr. Weldon Henley?" suddenly asked The Thinking Machine.

"Who?" asked Burlingame.

"Weldon Henley?"

"No-o," was the slow response. "Never heard of him. Who is he?"

"One of the tenants, on the second floor, I think."

"Lord, I don't know any of the tenants. What about him?"

"When does the inspector come here to read the meter?"

"I never saw him. I presume in daytime, eh Bill?" and he turned to the day engineer.

"Always in the daytime— usually about noon," said Bill from his corner.

"Any other entrance to the basement except this way— and you could see anyone coming here this way I suppose?"

"Sure I could see 'em. There's no other entrance to the cellar except the coal hole in the sidewalk in front."

"Two big electric lights in front of the building, aren't there?"

“Yes. They go all night.”

A slightly puzzled expression crept into the eyes of The Thinking Machine. Hatch knew from the persistency of the questions that he was not satisfied; yet he was not able to fathom or to understand all the queries. In some way they had to do with the possibility of some one having access to the meter.

“Where do you usually sit at night here?” was the next question.

“Over there where Bill’s sitting. I always sit there.”

The Thinking Machine crossed the room to Bill, a typical, grimy-handed man of his class.

“May I sit there a moment?” he asked.

Bill arose lazily, and The Thinking Machine sank down into the chair. From this point he could see plainly through the opening into the basement proper— there was no door— the gas meter of enormous proportions through which all the gas in the house passed. An electric light in the door made it bright as daylight. The Thinking Machine noted these things, arose, nodded his thanks to the two men and, still with the puzzled expression on his face, led the way upstairs. There the manager was still in his office.

“I presume you examine and know that the time check in the engineer’s room is properly punched every half-hour during the night?” he asked.

“Yes. I examine the dial every day— have them here, in fact, each with the date on it.”

“May I see them?”

Now the manager was puzzled. He produced the cards, one for each day, and for half an hour The Thinking Machine studied them minutely. At the end of that time, when he arose and Hatch looked at him inquiringly, he saw still the perplexed expression.

After urgent solicitation, the manager admitted them to the apartments of Weldon Henley. Mr. Henley himself had gone to

his office in State Street. Here The Thinking Machine did several things which aroused the curiosity of the manager, one of which was to minutely study the gas jets. Then The Thinking Machine opened one of the front windows and glanced out into the street. Below fifteen feet was the sidewalk; above was the solid front of the building, broken only by a flagpole which, properly roped, extended from the hall window of the next floor above out over the sidewalk a distance of twelve feet or so.

"Ever use that flagpole?" he asked the manager.

"Rarely," said the manager. "On holidays sometimes—Fourth of July and such times. We have a big flag for it."

From the apartments The Thinking Machine led the way to the hall, up the stairs and to the flagpole. Leaning out of this window, he looked down toward the window of the apartments he had just left. Then he inspected the rope of the flagpole, drawing it through his slender hands slowly and carefully. At last he picked off a slender thread of scarlet and examined it.

"Ah," he exclaimed. Then to Hatch: "Let's go, Mr. Hatch. Thank you," this last to the manager, who had been a puzzled witness.

Once on the street, side by side with The Thinking Machine, Hatch was bursting with questions, but he didn't ask them. He knew it would be useless. At last The Thinking Machine broke the silence.

"That girl, Miss Regnier, *was murdered*," he said suddenly, positively. "There have been four attempts to murder Henley."

"How?" asked Hatch, startled.

"By a scheme so simple that neither you nor I nor the police have ever heard of it being employed," was the astonishing reply. "*It is perfectly horrible in its simplicity.*"

"What was it?" Hatch insisted, eagerly.

"It would be futile to discuss that now," was the rejoinder. "There has been murder. We know how. Now the question is—*who? What person would have a motive to kill Henley?*"

THERE was a pause as they walked on.

"Where are we going?" asked Hatch finally.

"Come up to my place and let's consider this matter a bit further," replied The Thinking Machine.

Not another word was spoken by either until half an hour later, in the small laboratory. For a long time the scientist was thoughtful— deeply thoughtful. Once he took down a volume from a shelf and Hatch glanced at the title. It was "Gases: Their Properties." After awhile he returned this to the shelf and took down another, on which the reporter caught the title, "Anatomy."

"Now, Mr. Hatch," said The Thinking Machine in his perpetually crabbed voice, "we have a most remarkable riddle. It gains this remarkable aspect from its very simplicity. It is not, however, necessary to go into that now. I will make it clear to you when we know the motives.

"As a general rule, the greatest crimes never come to light because the greatest criminals, their perpetrators, are too clever to be caught. Here we have what I might call a great crime committed with a subtle simplicity that is wholly disarming, and a greater crime even than this was planned. This was to murder Weldon Henley. The first thing for you to do is to see Mr. Henley and warn him of his danger. Asphyxiation will not be attempted again, but there is the possibility of poison, a pistol shot, a knife, anything almost. As a matter of fact, he is in great peril.

"Superficially, the death of Miss Regnier, the maid, looks to be suicide. Instead it is the fruition of a plan which has been tried time and again against Henley. There is a possibility that Miss Regnier was not an intentional victim of the plot, but the fact remains that she was murdered. Why? Find the motive for the plot to murder Mr. Henley and you will know why."

The Thinking Machine reached over to the shelf, took a book, looked at it a moment, then went on:

"The first question to determine positively is: Who hated Weldon Henley sufficiently to desire his death? You say he is a

successful man in the Street. Therefore there is a possibility that some enemy there is at the bottom of the affair, yet it seems hardly probable. If by his operations Mr. Henley ever happened to wreck another man's fortune find this man and find out all about him. He may be the man. There will be innumerable questions arising from this line of inquiry to a man of your resources. Leave none of them unanswered.

"On the other hand there is Henley's love affair. Had he a rival who might desire his death? Had he any rival? If so, find out all about him. He may be the man who planned all this. Here, too, there will be questions arising which demand answers. Answer then— all of them— fully and clearly before you see me again.

"Was Henley ever a party to a liason of any kind? Find that out, too. A vengeful woman or a discarded sweetheart of a vengeful woman, you know, will go to any extreme. The rumor of his engagement to Miss— Miss— —"

"Miss Lipscomb," Hatch supplied.

"The rumor of his engagement to Miss Lipscomb might have caused a woman whom he had once been interested in or who was once interested in him to attempt his life. The subtler murders— that is, the ones which are most attractive as problems— are nearly always the work of a cunning woman. I know nothing about women myself," he hastened to explain; "But Lombroso has taken that attitude. Therefore, see if there is a woman."

Most of these points Hatch had previously seen— seen with the unerring eye of a clever newspaper reporter— yet there were several which had not occurred to him. He nodded his understanding.

"Now the center of the affair, of course," The Thinking Machine continued, "is the apartment house where Henley lives. The person who attempted his life either lives there or has ready access to the place, and frequently spends the night there. This is a vital question for you to answer. I am leaving all this to you

because you know better how to do these things than I do. That's all, I think. When these things are all learned come back to me."

The Thinking Machine arose as if the interview were at an end, and Hatch also arose, reluctantly. An idea was beginning to dawn in his mind.

"Does there occur to you that there is any connection whatever between Henley and Miss Regnier?" he asked.

"It is possible," was the reply. "I had thought of that. If there is a connection it is not apparent yet."

"Then how— how was it she— she was killed, or killed herself, whichever may be true, and—"

"The attempt to kill Henley killed her. That's all I can say now."

"That all?" asked Hatch, after a pause.

"No. Warn Mr. Henley immediately that he is in grave danger. Remember the person who has planned this will probably go to any extreme. I don't know Mr. Henley, of course, but from the fact that he always had a light at night I gather that he is a timid sort of man— not necessarily a coward, but a man lacking in stamina— therefore, one who might better disappear for a week or so until the mystery is cleared up. Above all, impress upon him the importance of the warning."

The Thinking Machine opened his pocketbook and took from it the scarlet thread which he had picked from the rope of the flagpole.

"Here, I believe, is the real clew to the problem," he explained to Hatch. "What does it seem to be?"

Hatch examined it closely.

"I should say a strand from a Turkish bath robe," was his final judgement.

"Possibly. Ask some cloth expert what he makes of it, then if it sounds promising look into it. Find out if by any possibility it can be any part of any garment worn by any person in the apartment house."

"But it's so slight—" Hatch began.

"I know," the other interrupted, tartly. "It's slight, but I believe it is a part of the wearing apparel of the person, man or woman, who has four times attempted to kill Mr. Henley and who did kill the girl. Therefore, it is important."

Hatch looked at him quickly.

"Well, how— in what manner— did it come where you found it?"

"Simple enough," said the scientist. "It is a wonder that there were not more pieces of it— that's all."

Perplexed by his instructions. But confident of results, Hatch left The Thinking Machine. What possible connection could this tiny bit of scarlet thread, found on a flagpole, have with one shutting off the gas in Henley's rooms? How did anyone go into Henley's rooms to shut off the gas? How was it Miss Regnier was dead? What was the manner of her death?

A cloth expert in a great department store turned his knowledge on the tiny bit of scarlet for the illumination of Hatch, but he could go no further than to say that it seemed to be part of a Turkish bath robe.

"Man or woman's?" asked Hatch.

"The material from which bath robes are made is the same for both men and women," was the reply. "I can say nothing else. Of course there's not enough of it to even guess at the pattern of the robe."

Then Hatch went to the financial district and was ushered into the office of Weldon Henley, a slender, handsome man of thirty-two or three years, pallid of face and nervous in manner. He still showed the effect of the gas poisoning, and there was even a trace of a furtive fear— fear of something, he himself didn't know what— in his actions.

Henley talked freely to the newspaper man of certain things, but of other things he was resentfully reticent. He admitted his engagement to Miss Lipscomb, and finally even admitted that Miss Lipscomb's hand had been sought by another man, Regnault Cabell, formerly of Virginia.

"Could you give me his address?" asked Hatch.

"He lives in the same apartment house with me— two floors above," was the reply.

Hatch was startled; startled more than he would have cared to admit.

"Are you on friendly terms with him?" he asked.

"Certainly," said Henley. "I won't say anything further about this matter. It would be unwise for obvious reasons."

"I suppose you consider that this turning on of the gas was an attempt on your life?"

"I can't suppose anything else."

Hatch studied the pallid face closely as he asked the next question.

"Do you know Miss Regnier was found dead to-day?"

"Dead?" exclaimed the other, and he arose. "Who— what— who is she?"

It seemed a distinct effort for him to regain control of himself.

The reporter detailed then the circumstances of the finding of the girl's body, and the broker listened without comment. From that time forward all the reporter's questions were either parried or else met with a flat refusal to answer. Finally Hatch repeated to him the warning which he had from The Thinking Machine, and feeling that he had accomplished little, went away.

At eight o'clock that night— a night of complete darkness— Henley was found unconscious, lying in a little used walk in the Common. There was a bullet hole through his left shoulder, and he was bleeding profusely. He was removed to the hospital, where he regained consciousness for just a moment.

"Who shot you?" he was asked.

"None of your business," he replied, and lapsed into unconsciousness.

ENTIRELY unaware of this latest attempt on the life of the broker, Hutchinson Hatch steadily pursued his investigations. They finally led him to an intimate friend of Regnault Cabell. The young Southerner had apartments on the fourth floor of the big house off Commonwealth Avenue, directly over those Henley occupied, but two flights higher up. This friend was a figure in the social set of the Back Bay. He talked to Hatch freely of Cabell.

"He's a good fellow," he explained, "one of the best I ever met, and comes of one of the best families Virginia ever had— a true F. F. V. He's pretty quick tempered and all that, but an excellent chap, and everywhere he has gone here he has made friends."

"He used to be in love with Miss Lipscomb of Virginia, didn't he?" asked Hatch, casually.

"Used to be?" the other repeated with a laugh. "He *is* in love with her. But recently he understood that she was engaged to Weldon Henley, a broker— you may have heard of him?— and that, I suppose, has dampened his ardor considerably. As a matter of fact, Cabell took the thing to heart. He used to know Miss Lipscomb in Virginia— she comes from another famous family there— and he seemed to think he had a prior claim on her."

Hatch heard all these things as any man might listen to gossip, but each additional fact was sinking into his mind, and each additional fact led his suspicions on deeper into the channel they had chosen.

"Cabell is pretty well to do," his informant went on, "not rich as we count riches in the North, but pretty well to do, and I believe he came to Boston because Miss Lipscomb spent so much of her time here. She is a beautiful young woman of

twenty-two and extremely popular in the social world everywhere, particularly in Boston. Then there was the additional fact that Henley was here."

"No chance at all for Cabell?" Hatch suggested.

"Not the slightest," was the reply. "Yet despite the heartbreak he had, he was the first to congratulate Henley on winning her love. And he meant it, too."

"What's his attitude toward Henley now?" asked Hatch. His voice was calm, but there was an underlying tense note imperceptible to the other.

"They meet and speak and move in the same set. There's no love lost on either side, I don't suppose, but there is no trace of any ill feeling."

"Cabell doesn't happen to be a vindictive sort of man?"

"Vindictive?" and the other laughed. "No. He's like a big boy, forgiving, and all that; hot-tempered, though. I could imagine him in a fit of anger making a personal matter of it with Henley, but I don't think he ever did."

The mind of the newspaper man was rapidly focusing on one point; the rush of thoughts, questions and doubts silenced him for a moment. Then:

"How long has Cabell been in Boston?"

"Seven or eight months— that is, he has had apartments here for that long— but he has made several visits South. I suppose it's South. He has a trick of dropping out of sight occasionally. I understand that he intends to go South for good very soon. If I'm not mistaken, he is trying now to rent his suite."

Hatch looked suddenly at his informant; an idea of seeing Cabell and having a legitimate excuse for talking to him had occurred to him.

"I'm looking for a suite," he volunteered at last. "I wonder if you would give me a card of introduction to him? We might get together on it."

Thus it happened that half an hour later, about ten minutes past nine o'clock, Hatch was on his way to the big apartment

house. In the office he saw the manager.

"Heard the news?" asked the manager.

"No," Hatch replied. "What is it?"

"Somebody's shot Mr. Henley as he was passing through the Common early to-night."

Hatch whistled in amazement.

"Is he dead?"

"No, but he is unconscious. The hospital doctors say it is a nasty wound, but not necessarily dangerous."

"Who shot him? Do they know?"

"He knows, but he won't say."

Amazed and alarmed by this latest development, an accurate fulfillment of The Thinking Machine's prophecy, Hatch stood thoughtful for a moment, then recovering his composure a little asked for Cabell.

"I don't think there's much chance of seeing him," said the manager. "He's going away on the midnight train— going South, to Virginia."

"Going away to-night?" Hatch gasped.

"Yes; it seems to have been rather a sudden determination. He was talking to me here half an hour or so ago, and said something about going away. While he was here the telephone boy told me that Henley had been shot; they had 'phoned from the hospital to inform us. Then Cabell seemed greatly agitated. He said he was going away to-night, if he could catch the midnight train, and now he's packing."

"I suppose the shooting of Henley upset him considerably?" the reporter suggested.

"Yes, I guess it did," was the reply. "They moved in the same set and belonged to the same clubs."

The manager sent Hatch's card of introduction to Cabell's apartments. Hatch went up and was ushered into a suite identical with that of Henley's in every respect save in minor details of furnishings. Cabell stood in the middle of the floor, with his personal belongings scattered about the room; his valet,

evidently a Frenchman, was busily engaged in packing.

Cabell's greeting was perfunctorily cordial; he seemed agitated. His face was flushed and from time to time he ran his fingers through his long, brown hair. He stared at Hatch in a preoccupied fashion, then they fell into conversation about the rent of the apartments.

"I'll take almost anything reasonable," Cabell said hurriedly. "You see, I am going away to-night, rather more suddenly than I had intended, and I am anxious to get the lease off my hands. I pay two hundred dollars a month for these just as they are."

"May I looked them over?" asked Hatch.

He passed from the front room into the next. Here, on a bed, was piled a huge lot of clothing, and the valet, with deft fingers, was brushing and folding, preparatory to packing. Cabell was directly behind him.

"Quite comfortable, you see," he explained. "There's room enough if you are alone. Are you?"

"Oh, yes," Hatch replied.

"This other room here," Cabell explained, "is not in very tidy shape now. I have been out of the city for several weeks, and— What's the matter?" he demanded suddenly.

Hatch had turned quickly at the words and stared at him, then recovered himself with a start.

"I beg your pardon," he stammered. "I rather thought I saw you in town here a week or so ago— of course I didn't know you — and I was wondering if I could have been mistaken."

"Must have been," said the other easily. "During the time I was away a Miss — , a friend of my sister's, occupied the suite. I'm afraid some of her things are here. She hasn't sent for them as yet. She occupied this room, I think; when I came back a few days ago she took another place and all her things haven't been removed."

"I see," remarked Hatch, casually. "I don't suppose there's any chance of her returning here unexpectedly if I should happen to take her apartments?"

"Not the slightest. She knows I am back, and thinks I am to remain. She was to send for these things."

Hatch gazed about the room ostentatiously. Across a trunk lay a Turkish bath robe with a scarlet stripe in it. He was anxious to get hold of it, to examine it closely. But he didn't dare to, then. Together they returned to the front room.

"I rather like the place," he said, after a pause, "but the price is—"

"Just a moment," Cabell interrupted. "Jean, before you finish packing that suit case be sure to put my bath robe in it. It's in the far room."

Then one question was settled for Hatch. After a moment the valet returned with the bath robe, which had been in the far room. It was Cabell's bath robe. As Jean passed the reporter an end of the robe caught on a corner of the trunk, and, stopping, the reporter unfastened it. A tiny strand of thread clung to the metal; Hatch detached it and stood idly twirling it in his fingers.

"As I was saying," he resumed, "I rather like the place, but the price is too much. Suppose you leave it in the hands of the manager of the house—"

"I had intended doing that," the Southerner interrupted.

"Well, I'll see him about it later," Hatch added.

With a cordial, albeit pre-occupied, handshake, Cabell ushered him out. Hatch went down in the elevator with a feeling of elation; a feeling that he had accomplished something. The manager was waiting to get into the lift.

"Do you happen to remember the name of the young lady who occupied Mr. Cabell's suite while he was away?" he asked.

"Miss Austin," said the manager, "but she's not young. She was about forty-five years old, I should judge."

"Did Mr. Cabell have his servant Jean with him?"

"Oh, no," said the manager. "The valet gave up the suite to Miss Austin entirely, and until Mr. Cabell returned occupied a room in the quarters we have for our own employees."

"Was Miss Austin ailing in any way?" asked Hatch. "I saw a

large number of medicine bottles upstairs.”

“I don’t know what was the matter with her,” replied the manager, with a little puzzled frown. “She certainly was not a woman of sound mental balance— that is, she was eccentric, and all that. I think rather it was an act of charity for Mr. Cabell to let her have the suite in his absence. Certainly we didn’t want her.”

Hatch passed out and burst in eagerly upon The Thinking Machine in his laboratory.

“Here,” he said, and triumphantly he extended the tiny scarlet strand which he had received from The Thinking Machine, and the other of the identical color which came from Cabell’s bath robe. “Is that the same?”

The Thinking Machine placed them under the microscope and examined them immediately. Later he submitted them to a chemical test.

“It is the same,” he said, finally.

“Then the mystery is solved,” said Hatch, conclusively.

THE THINKING MACHINE stared steadily into the eager, exultant eyes of the newspaper man until Hatch at last began to fear that he had been precipitate. After awhile, under close scrutiny, the reporter began to feel convinced that he had made a mistake— he didn’t quite see where, but it must be there, and the exultant manner passed. The voice of The Thinking Machine was like a cold shower.

“Remember, Mr. Hatch,” he said, critically, “that unless every possible question has been considered one cannot boast of a solution. Is there any possible question lingering yet in your mind?”

The reporter silently considered that for a moment, then:

“Well, I have the main facts, anyway. There may be one or two minor questions left, but the principal ones are answered.”

“Then tell me, to the minutest detail, what you have learned, what has happened.”

Professor Van Dusen sank back in his old, familiar pose in the large arm chair and Hatch related what he had learned and what he surmised. He related, too, the peculiar circumstances surrounding the wounding of Henley, and right on down to the beginning and end of the interview with Cabell in the latter's apartments. The Thinking Machine was silent for a time, then there came a host of questions.

"Do you know where the woman— Miss Austin— is now?" was the first.

"No," Hatch had to admit.

"Or her precise mental condition?"

"No."

"Or her exact relationship to Cabell?"

"No."

"Do you know, then, what the valet, Jean, knows of the affair?"

"No, not that," said the reporter, and his face flushed under the close questioning. "He was out of the suite every night."

"Therefore might have been the very one who turned on the gas," the other put in testily.

"So far as I can learn, nobody could have gone into that room and turned on the gas," said the reporter, somewhat aggressively. "Henley barred the doors and windows and kept watch, night after night."

"Yet the moment he was exhausted and fell asleep the gas was turned on to kill him," said The Thinking Machine; "thus we see that *he was watched more closely than he watched.*"

"I see what you mean now," said Hatch, after a long pause.

"I should like to know what Henley and Cabell and the valet knew of the girl who was found dead," The Thinking Machine suggested. "Further, I should like to know if there was a good-sized mirror— not one set in a bureau or dresser— either in Henley's room or the apartments where the girl was found. Find out this for me and— never mind. I'll go with you."

The scientist left the room. When he returned he wore his

coat and hat. Hatch arose mechanically to follow. For a block or more they walked along, neither speaking. The Thinking Machine was the first to break the silence:

"You believe Cabell is the man who attempted to kill Henley?"

"Frankly, yes," replied the newspaper man.

"Why?"

"Because he had the motive— disappointed love."

"How?"

"I don't know," Hatch confessed. "The doors of the Henley suite were closed. I don't see how anybody passed them."

"And the girl? Who killed her? How? Why?"

Disconsolately Hatch shook his head as he walked on. The Thinking Machine interpreted his silence aright.

"Don't jump at conclusions," he advised sharply. "You were confident Cabell was to blame for this— and he might have been, I don't know yet— but you can suggest nothing to show how he did it. I have told you before that imagination is half of logic."

At last the lights of the big apartment house where Henley lived came in sight. Hatch shrugged his shoulders. He had grave doubts— based on what he knew— whether The Thinking Machine would be able to see Cabell. It was nearly eleven o'clock and Cabell was to leave for the South at midnight.

"Is Mr. Cabell here?" asked the scientist of the elevator boy.

"Yes, just about to go, though. He won't see anyone."

"Hand him this note," instructed The Thinking Machine, and he scribbled something on a piece of paper. "He'll see us."

The boy took the paper and the elevator shot up to the fourth floor. After awhile he returned.

"He'll see you," he said.

"Is he unpacking?"

"After he read your note twice he told his valet to unpack," the boy replied.

"Ah, I thought so," said The Thinking Machine.

With Hatch, mystified and puzzled, following, The Thinking Machine entered the elevator to step out a second or so later on the fourth floor. As they left the car they saw the door of Cabell's apartment standing open; Cabell was in the door. Hatch traced a glimmer of anxiety in the eyes of the young man.

"Professor Van Dusen?" Cabell inquired.

"Yes," said the scientist. "It was of the utmost importance that I should see you, otherwise I should not have come at this time of night."

With a wave of his hand Cabell passed that detail.

"I was anxious to get away at midnight," he explained, "but, of course, now I shan't go, in view of your note. I have ordered my valet to unpack my things, at least until to-morrow."

The reporter and the scientist passed into the luxuriously furnished apartments. Jean, the valet, was bending over a suit case as they entered, removing some things he had been carefully placing there. He didn't look back or pay the least attention to the visitors.

"This is your valet?" asked The Thinking Machine.

"Yes," said the young man.

"French, isn't he?"

"Yes."

"Speak English at all?"

"Very badly," said Cabell. "I use French when I talk to him."

"Does he know that you are accused of murder?" asked The Thinking Machine, in a quiet, conversational tone.

The effect of the remark on Cabell was startling. He staggered back a step or so as if he had been struck in the face, and a crimson flush overspread his brow. Jean, the valet, straightened up suddenly and looked around. There was a queer expression, too, in his eyes; an expression which Hatch could not fathom.

"Murder?" gasped Cabell, at last.

"Yes, he speaks English all right," remarked The Thinking Machine. "Now, Mr. Cabell, will you please tell me just who Miss

Austin is, and where she is, and her mental condition? Believe me, it may save you a great deal of trouble. What I said in the note is not exaggerated."

The young man turned suddenly and began to pace back and forth across the room. After a few minutes he paused before The Thinking Machine, who stood impatiently waiting for an answer.

"I'll tell you, yes," said Cabell, firmly. "Miss Austin is a middle-aged woman whom my sister befriended several times— was, in fact, my sister's governess when she was a child. Of late years she has not been wholly right mentally, and has suffered a great deal of privation. I had about concluded arrangements to put her in a private sanitarium. I permitted her to remain in these rooms in my absence, South. I did not take Jean— he lived in the quarters of the other employees of the place, and gave the apartment entirely to Miss Austin. It was simply an act of charity."

"What was the cause of your sudden determination to go South to-night?" asked the scientist.

"I won't answer that question," was the sullen reply.

There was a long, tense silence. Jean, the valet, came and went several times.

"How long has Miss Austin known Mr. Henley?"

"Presumably since she has been in these apartments," was the reply.

"Are you sure *you* are not Miss Austin?" demanded the scientist.

The question was almost staggering, not only to Cabell, but to Hatch. Suddenly, with flaming face, the young Southerner leaped forward as if to strike down The Thinking Machine.

"That won't do any good," said the scientist, coldly. "Are you sure you are not Miss Austin?" he repeated.

"Certainly I am not Miss Austin," responded Cabell, fiercely.

"Have you a mirror in these apartments about twelve inches by twelve inches?" asked The Thinking Machine, irrelevantly.

"I— I don't know," stammered the young man. "I— have we, Jean?"

"*Oui*," replied the valet.

"Yes," snapped The Thinking Machine. "Talk English, please. May I see it?"

The valet, without a word but with a sullen glance at the questioner, turned and left the room. He returned after a moment with the mirror. The Thinking Machine carefully examined the frame, top and bottom and on both sides. At last he looked up; again the valet was bending over a suit case.

"Do you use gas in these apartments?" the scientist asked suddenly.

"No," was the bewildered response. "What is all this, anyway?"

Without answering, The Thinking Machine drew a chair up under the chandelier where the gas and electric fixtures were and began to finger the gas tips. After awhile he climbed down and passed into the next room, with Hatch and Cabell, both hopelessly mystified, following. There the scientist went through the same process of fingering the gas jets. Finally, one of the gas tips came out in his hand.

"Ah," he exclaimed, suddenly, and Hatch knew the note of triumph in it. The jet from which the tip came was just on a level with his shoulder, set between a dressing table and a window. He leaned over and squinted at the gas pipe closely. Then he returned to the room where the valet was.

"Now, Jean," he began, in an even, calm voice, "please tell me *if you did or did not kill Miss Regnier purposely?*"

"I don't know what you mean," said the servant sullenly, angrily, as he turned on the scientist.

"You speak very good English now," was The Thinking Machine's terse comment. "Mr. Hatch, lock the door and use this 'phone to call the police."

Hatch turned to do as he was bid and saw a flash of steel in young Cabell's hand, which was drawn suddenly from a hip

pocket. It was a revolver. The weapon glittered in the light, and Hatch flung himself forward. There was a sharp report, and a bullet was buried in the floor.

THEN came a fierce, hard fight for possession of the revolver. It ended with the weapon in Hatch's hand, and both he and Cabell blowing from the effort they had expended. Jean, the valet, had turned at the sound of the shot and started toward the door leading into the hall. The Thinking Machine had stepped in front of him, and now stood there with his back to the door. Physically he would have been a child in the hands of the valet, yet there was a look in his eyes which stopped him.

"Now, Mr. Hatch," said the scientist quietly, a touch of irony in his voice, "hand me the revolver, then 'phone for Detective Mallory to come here immediately. Tell him we have a murderer — and if he can't come at once get some other detective whom you know."

"Murderer!" gasped Cabell.

Uncontrollable rage was blazing in the eyes of the valet, and he made as if to throw The Thinking Machine aside, despite the revolver, when Hatch was at the telephone. As Jean started forward, however, Cabell stopped him with a quick, stern gesture. Suddenly the young Southerner turned on The Thinking Machine; but it was with a question.

"What does it all mean?" he asked, bewildered.

"It means that that man there," and The Thinking Machine indicated the valet by a nod of his head, "is a murderer — that he killed Louise Regnier; that he shot Welden Henley on Boston Common, and that, with the aid of Miss Regnier, he had four times previously attempted to kill Mr. Henley. Is he coming, Mr. Hatch?"

"Yes," was the reply. "He says he'll be here directly."

"Do you deny it?" demanded The Thinking Machine of the valet.

"I've done nothing," said the valet sullenly. "I'm going out of

here.”

Like an infuriated animal he rushed forward. Hatch and Cabell seized him and bore him to the floor. There, after a frantic struggle, he was bound and the other three men sat down to wait for Detective Mallory. Cabell sank back in his chair with a perplexed frown on his face. From time to time he glanced at Jean. The flush of anger which had been on the valet’s face was gone now; instead there was the pallor of fear.

“Won’t you tell us?” pleaded Cabell impatiently.

“When Detective Mallory comes and takes his prisoner,” said The Thinking Machine.

Ten minutes later they heard a quick step in the hall outside and Hatch opened the door. Detective Mallory entered and looked from one to another inquiringly.

“That’s your prisoner, Mr. Mallory,” said the scientist, coldly. “I charge him with the murder of Miss Regnier, whom you were so confident committed suicide; I charge him with five attempts on the life of Weldon Henley, four times by gas poisoning, in which Miss Regnier was his accomplice, and once by shooting. He is the man who shot Mr. Henley.”

The Thinking Machine arose and walked over to the prostate man, handing the revolver to Hatch. He glared down at Jean fiercely.

“Will you tell how you did it or shall I?” he demanded.

His answer was a sullen, defiant glare. He turned and picked up the square mirror which the valet had produced previously.

“That’s where the screw was, isn’t it?” he asked, as he indicated a small hole in the frame of the mirror. Jean stared at it and his head sank forward hopelessly. “And this is the bath robe you wore, isn’t it?” he demanded again, and from the suit case he pulled out the garment with the scarlet stripe.

“I guess you got me all right,” was the sullen reply.

“It might be better for you if you told the story then?” suggested The Thinking Machine.

“You know so much about it, tell it yourself.”

“Very well,” was the calm rejoinder. “I will. If I make any mistake you will correct me.”

For a long time no one spoke. The Thinking Machine had dropped back into a chair and was staring through his thick glasses at the ceiling; his finger tips were pressed tightly together. At last he began:

“There are certain trivial gaps which only the imagination can supply until the matter is gone into more fully. I should have supplied these myself, but the arrest of this man, Jean, was precipitated by the attempted hurried departure of Mr. Cabell for the South to-night, and I did not have time to go into the case to the fullest extent.

“Thus, we begin with the fact that there were several clever attempts made to murder Mr. Henley. This was by putting out the gas which he habitually left burning in his room. It happened four times in all; thus proving that it was an attempt to kill him. If it had been only once it might have been accident, even twice it might have been accident, but the same accident does not happen four times at the same time of night.

“Mr. Henley finally grew to regard the strange extinguishing of the gas as an effort to kill him, and carefully locked and barred his door and windows each night. He believed that some one came into his apartments and put out the light, leaving the gas flow. This, of course, was not true. Yet the gas was put out. How? My first idea, a natural one, was that it was turned off for an instant at the meter, when the light would go out, then turned on again. This, I convinced myself, was not true. Therefore still the question— how?

“It is a fact— I don’t know how widely known it is— but it is a fact that every gas light in this house might be extinguished at the same time from this room without leaving it. How? Simply by removing that gas jet tip and blowing into the gas pipe. It would not leave a jet in the building burning. It is due to the fact that the lung power is greater than the pressure of the gas in the pipes, and forces it out.

“Thus we have the method employed to extinguish the light in Mr. Henley’s rooms, and all the barred and locked doors and windows would not stop it. At the same time it threatened the life of every other person in the house— that is, every other person who used gas. It was probably for this reason that the attempt was always made late at night, I should say three or four o’clock. That’s when it was done, isn’t it?” he asked suddenly of the valet.

Staring at The Thinking Machine in open-mouthed astonishment the valet nodded his acquiescence before he was fully aware of it.

“Yes, that’s right,” The Thinking Machine resumed complacently. “This was easily found out— comparatively. The next question was how was a watch kept on Mr. Henley? It would have done no good to extinguish the gas before he was asleep, or to have turned it on when he was not in his rooms. It might have led to a speedy discovery of just how the thing was done.

“There’s a spring lock on the door of Mr. Henley’s apartment. Therefore it would have been impossible for anyone to peep through the keyhole. There are no cracks through which one might see. How was this watch kept? How was the plotter to satisfy himself positively of the time when Mr. Henley was asleep? How was it that the gas was put out at no time of the score or more nights Mr. Henley himself kept watch? Obviously he was watched through a window.

“No one could climb out on the window ledge and look into Mr. Henley’s apartments. No one could see into that apartment from the street— that is, could see whether Mr. Henley was asleep or even in bed. They could see the light. Watch was kept with the aid offered by the flagpole, supplemented with a mirror — this mirror. A screw was driven into the frame— it has been removed now— it was swung on the flagpole rope and pulled out to the end of the pole, facing the building. To a man standing in the hall window of the third floor it offered precisely the angle

necessary to reflect the interior of Mr. Henley's suite, possibly even showed him in bed through a narrow opening in the curtain. There is no shade on the windows of that suite; heavy curtains instead. Is that right?"

Again the prisoner was surprised into a mute acquiescence.

"I saw the possibility of these things, and I saw, too, that at three or four o'clock in the morning it would be perfectly possible for a person to move about the upper halls of this house without being seen. If he wore a heavy bath robe, with a hood, say, no one would recognize him even if he were seen, and besides the garb would not cause suspicion. This bath robe has a hood.

"Now, in working the mirror back and forth on the flagpole at night a tiny scarlet thread was pulled out of the robe and clung to the rope. I found this thread; later Mr. Hatch found an identical thread in these apartments. Both came from that bath robe. Plain logic shows that the person who blew down the gas pipes worked the mirror trick; the person who worked the mirror trick left the thread; the thread comes back to the bath robe— that bath robe there," he pointed dramatically. "Thus the person who desired Henley's death was in these apartments, or had easy access to them."

He paused for a moment and there was a tense silence. A great light was coming to Hatch, slowly but surely. The brain that had followed all this was unlimited in possibilities.

"Even before we traced the origin of the crime to this room," went on the scientist, quietly now, "attention had been attracted here, particularly to you, Mr. Cabell. It was through the love affair, of which Miss Lipscomb was the center. Mr. Hatch learned that you and Henley had been rivals for her hand. It was that, even before this scarlet thread was found, which indicated that you might have some knowledge of the affair, directly or indirectly.

"You are not a malicious or revengeful man, Mr. Cabell. But you are hot-tempered— extremely so. You demonstrated that

just now, when, angry and not understanding, but feeling that your honor was at stake, you shot a hole in the floor.”

“What?” asked Detective Mallory.

“A little accident,” explained The Thinking Machine quickly. “Not being a malicious or revengeful man, you are not the man to deliberately go ahead and make elaborate plans for the murder of Henley. In a moment of passion you might have killed him— but never deliberately as the result of premeditation. Besides you were out of town. Who was then in these apartments? Who had access to these apartments? Who might have used your bath robe? Your valet, possibly Miss Austin. Which? Now, let’s see how we reached this conclusion which led to the valet.

“Miss Regnier was found dead. It was not suicide. How did I know? Because she had been reading with the gas light at its full. If she had been reading by the gas light, how was it then that it went out and suffocated her before she could arise and shut it off? Obviously she must have fallen asleep over her book and left the light burning.

“If she was in this plot to kill Henley, why did she light the jet in her room? There might have been some defect in the electric bulb in her room which she had just discovered. Therefore she lighted the gas, intending to extinguish it— turn it off entirely— later. But she fell asleep. Therefore when the valet here blew into the pipe, intending to kill Mr. Henley, he unwittingly killed the woman he loved— Miss Regnier. It was perfectly possible, meanwhile, that she did not know of the attempt to be made that particular night, although she had participated in the others, knowing that Henley had night after night sat up to watch the light in his rooms.

“The facts, as I knew them, showed no connection between Miss Regnier and this man at that time— nor any connection between Miss Regnier and Henley. It might have been that the person who blew the gas out of the pipe from these rooms knew nothing whatever of Miss Regnier, just as he didn’t know who

else he might have killed in the building.

“But I had her death and the manner of it. I had eliminated you, Mr. Cabell. Therefore there remained Miss Austin and the valet. Miss Austin was eccentric— insane, if you will. Would she have any motive for killing Henley? I could imagine none. Love? Probably not. Money? They had nothing in common on that ground. What? Nothing that I could see. Therefore, for the moment, I passed Miss Austin by, after asking you, Mr. Cabell, if you were Miss Austin.

“What remained? The valet. Motive? Several possible ones, one or two probable. He is French, or says he is. Miss Regnier is French. Therefore I had arrived at the conclusion that they knew each other as people of the same nationality will in a house of this sort. And remember, I had passed by Mr. Cabell and Miss Austin, so the valet was the only one left; he could use the bath robe.

“Well, the motive. Frankly that was the only difficult point in the entire problem— difficult because there were so many possibilities. And each possibility that suggested itself suggested also a woman. Jealousy? There must be a woman. Hate? Probably a woman. Attempted extortion? With the aid of a woman. No other motive which would lead to so elaborate a plot of murder would come forward. Who was the woman? Miss Regnier.

“Did Miss Regnier know Henley? Mr. Hatch had reason to believe he knew her because of his actions when informed of her death. Knew her how? People of such relatively different planes of life can know each other— or do know each other— only on one plane. Henley is a typical young man, fast, I dare say, and liberal. Perhaps, then, there had been a liason. When I saw this possibility I had my motive.”

14. The Case of the Scientific Murderer

CERTAINLY no problem that ever came to the attention of The Thinking Machine required in a greater degree subtlety of mind, exquisite analytical sense, and precise knowledge of the marvels of science than did that singular series of events which began with the death of the Honorable Violet Danbury, only daughter and sole heir of the late Sir Duval Danbury, of Leamington, England. In this case The Thinking Machine— more properly, Professor Augustus S. F. X. Van Dusen, Ph. D., M. D., F. R. S., et cetera, et cetera— brought to bear upon an extraordinary mystery of crime that intangible genius of logic which had made him the court of last appeal in his profession. “Logic is inexorable,” he has said; and no greater proof of his assertion was possible than in this instance where literally he seemed to pluck a solution of the riddle from the void.

Shortly after eleven o’clock on the morning of Thursday, May 4, Miss Danbury was found dead, sitting in the drawing-room of apartments she was temporarily occupying in a big family hotel on Beacon Street. She was richly gowned, just as she had come from the opera the night before; her marble-white bosom and arms aglitter with jewels. On her face, dark in death as are the faces of those who die of strangulation, was an expression of unspeakable terror. Her parted lips were slightly bruised, as if from a light blow; in her left cheek was an insignificant, bloodless wound. On the floor at her feet was a shattered goblet. There was nothing else unusual, no disorder, no sign of a struggle. Obviously she had been dead for several hours.

All these things considered, the snap judgement of the police — specifically, the snap judgement of Detective Mallory, of the bureau of criminal investigation— was suicide by poison. Miss Danbury had poured some deadly drug into a goblet, sat down, drained it off, and died. Simple and obvious enough. But the darkness in her face? Oh, that! Probably some effect of a poison he didn’t happen to be acquainted with. But it looked as if she might have been strangled! Pooh! Pooh! There were no marks on her neck, of fingers or anything else. Suicide, that’s what it

was— the autopsy would disclose the nature of the poison.

Cursory questions of the usual nature were asked and answered. Had Miss Danbury lived alone? No; she had a companion upon whom, too, devolved the duties of chaperon—a Mrs. Cecelia Montgomery. Where was she? She'd left the city the day before to visit friends in Concord; the manager of the hotel had telegraphed the facts to her. No servants? No. She had availed herself of the service in the hotel. Who had last seen Miss Danbury alive? The elevator attendant the night before, when she had returned from the opera, about half past eleven o'clock. Had she gone alone? No. She had been accompanied by Professor Charles Meredith, of the university. He had returned with her, and left her at the elevator.

"How did she come to know Professor Meredith?" Mallory inquired. "Friend, relative—"

"I don't know," said the hotel manager. "She knew a great many people here. She'd only been in the city two months this time, but once, three years ago, she spent six months here."

"Any particular reason for her coming over? Business, for instance, or merely a visit?"

"Merely a visit, I imagine."

The front door swung open, and there entered at the moment a middle-aged man, sharp-featured, rather spare, brisk in his movements, and distinctly well groomed. He went straight to the inquiry desk.

"Will you please phone to Miss Danbury, and ask her if she will join Mr. Herbert Willing for luncheon at the country club?" he requested. "Tell her I am below with my motor."

At mention of Miss Danbury's name both Mallory and the house manager turned. The boy behind the inquiry desk glanced at the detective blankly. Mr. Willing rapped upon the desk sharply.

"Well, well?" he demanded impatiently. "Are you asleep?"

"Good morning, Mr. Willing," Mallory greeted him.

"Hello, Mallory," and Mr. Willing turned to face him. "What

are you doing here?"

"You don't know that Miss Danbury is" — the detective paused a little — "is dead?"

"Dead!" Mr. Willing gasped. "Dead!" he repeated incredulously. "What are you talking about?" He seized Mallory by the arm, and shook him. "Miss Danbury is—"

"Dead," the detective assured him again. "She probably committed suicide. She was found in her apartments two hours ago."

For half a minute Mr. Willing continued to stare at him as if without comprehension, then he dropped weakly into a chair, with his head in his hands. When he glanced up again there was deep grief in his keen face.

"It's my fault," he said simply. "I feel like a murderer. I gave her some bad news yesterday, but I didn't dream she would—"

"He stopped.

"Bad news?" Mallory urged.

"I've been doing some legal work for her," Mr. Willing explained. "She's been trying to sell a huge estate in England, and just at the moment the deal seemed assured it fell through. I— I suppose it was a mistake to tell her. This morning I received another offer from an unexpected quarter, and I came by to inform her of it." He stared tensely into Mallory's face for a moment without speaking. "I feel like her murderer!" he said again.

"But I don't understand why the failure of the deal—" the detective began; then: "She was rich, wasn't she? What did it matter particularly if the deal did fail?"

"Rich, yes; but land poor," the lawyer elucidated. "The estates to which she held title were frightfully involved. She had jewels and all those things, but see how simply she lived. She was actually in need of money. It would take me an hour to make you understand. How did she die? When? What was the manner of her death?"

Detective Mallory placed before him those facts he had, and

finally went away with him in his motor car to see Professor Meredith at the university. Nothing bearing on the case developed as the result of that interview. Mr. Meredith seemed greatly shocked, and explained that his acquaintance with Miss Danbury dated some weeks back, and friendship had grown out of it through a mutual love of music. He had accompanied her to the opera half a dozen times.

"Suicide!" the detective declared, as he came away.
"Obviously suicide by poison."

On the following day he discovered for the first time that the obvious is not necessarily true. The autopsy revealed absolutely no trace of poison, either in the body or clinging to the shattered goblet, carefully gathered up and examined. The heart was normal, showing neither constriction nor dilation, as would have been the case had poison been swallowed, or even inhaled.

"It's the small wound in her cheek, then," Mallory asserted.
"Maybe she *didn't* swallow or inhale poison— she injected it directly into her blood through that wound."

"No," one of the examining physicians pointed out. "Even that way the heart would have shown constriction or dilation."

"Oh, maybe not," Mallory argued hopefully.

"Besides," the physician went on, "that wound was made after death. That is proven by the fact that it did not bleed." His brow clouded in perplexity. "There doesn't seem to be the slightest reason for that wound, anyway. It's really a hole, you know. It goes straight through her cheek. It looks as if it might have been made with a large hatpin."

The detective was staring at him. If that wound had been made after death, certainly Miss Danbury didn't make it— she had been murdered! And not murdered for robbery, since her jewels had been undisturbed.

"Straight through her cheek!" he repeated blankly. "By George! Say, if it wasn't poison, what killed her?"

The three examining physicians exchanged glances.

"I don't know that I can make you understand," said one.

"She died of absence of air in her lungs, if you follow me."

"Absence of air— well, that's illuminating!" the detective sneered heavily. "You mean she was strangled, or choked to death?"

"I mean precisely what I say," was the reply. "She was not strangled— there is no mark on her throat; or choked— there is no obstruction in her throat. Literally she died of absence of air in her lungs."

Mallory stood silently glowering at them. A fine lot of physicians, these!

"Let's understand one another," he said at last. "Miss Danbury did not die a natural death?"

"No!" emphatically.

"She wasn't poisoned? Or strangled? Or shot? Or stabbed? Or run over by a truck? Or blown up by dynamite? Or kicked by a mule? Nor," he concluded, "did she fall from an aeroplane?"

"No."

"In other words, she just quit living?"

"Something like that," the physician admitted. He seemed to be seeking a means of making himself more explicit. "You know the old nursery theory that a cat will suck a sleeping baby's breath?" he asked. "Well, the death of Miss Danbury was like that, if you understand. It is as if some great animal or— or thing had—" He stopped.

Detective Mallory was an able man, the ablest, perhaps, in the bureau of criminal investigation, but a yellow primrose by the river's brim was to him a yellow primrose, nothing more. He lacked imagination, a common fault of that type of sleuth who combines, more or less happily, a number eleven shoe and a number six hat. The only vital thing he had to go on was the fact that Miss Danbury was dead— murdered, in some mysterious, uncanny way. Vampires were something like that, weren't they? He shuddered a little.

"Regular vampire sort of thing," the youngest of the three physicians remarked, echoing the thought in the detective's

mind. "They're supposed to make a slight wound, and—"

Detective Mallory didn't hear the remainder of it. He turned abruptly, and left the room.

On the following Monday morning, one Henry Sumner, a longshoreman in Atlantic Avenue, was found dead sitting in his squalid room. On his face, dark in death, as are the faces of those who die of strangulation, was an expression of unspeakable terror. His parted lips were slightly bruised, as if from a light blow; in his left cheek was an insignificant, bloodless wound. On the floor at his feet was a shattered drinking glass!

'Twas Hutchinson Hatch, newspaper reporter, long, lean, and rather prepossessing in appearance, who brought this double mystery to the attention of The Thinking Machine. Martha, the eminent scientist's one servant, admitted the newspaper man, and he went straight to the laboratory. As he opened the door The Thinking Machine turned testily from his worktable.

"Oh, it's you, Mr. Hatch. Glad to see you. Sit down. What is it?" That was his idea of extreme cordiality.

"If you can spare me five minutes?" the reporter began apologetically.

"What is it?" repeated The Thinking Machine, without raising his eyes.

"I wish I knew," the reporter said ruefully. "Two persons are dead— two persons as widely apart as the poles, at least in social position, have been murdered in precisely the same manner, and it seems impossible that— — "

"Nothing is impossible," The Thinking Machine interrupted, in the tone of perpetual irritation which seemed to be a part of him. "You annoy me when you say it."

"It seems highly improbable," Hatch corrected himself, "that there can be the remotest connection between the crimes, yet —"

"You're wasting words," the crabbed little scientist declared impatiently. "Begin at the beginning. Who was murdered? When? How? Why? What was the manner of death?"

"Taking the last question first," the reporter explained, "we have the most singular part of the problem. No one can say the manner of death, not even the physicians."

"Oh!" For the first time The Thinking Machine lifted his petulant, squinting, narrowed eyes, and stared into the face of the newspaper man. "Oh!" he said again. "Go on."

As Hatch talked, the lure of a material problem laid hold of the master mind, and after a little The Thinking Machine dropped into a chair. With his great, grotesque head tilted back, his eyes turned steadily upward, and slender fingers placed precisely tip to tip, he listened in silence to the end.

"We come now," said the newspaper man, "to the inexplicable after developments. We have proven that Mrs. Cecelia Montgomery, Miss Danbury's companion, did *not* go to Concord to visit friends; as a matter of fact, she is missing. The police have been able to find no trace of her, and to-day are sending out a general alarm. Naturally, her absence at this particular moment is suspicious. It is possible to conjecture her connection with the death of Miss Danbury, but what about—"

"Never mind conjecture," the scientist broke in curtly. "Facts, facts!"

"Further," and Hatch's bewilderment was evident on his face, "mysterious things have been happening in the rooms where Miss Danbury and this man Henry Sumner were found dead. Miss Danbury was found dead last Thursday. Immediately after the body was removed, Detective Mallory ordered her room locked, his idea being that nothing should be disturbed at least for the present, because of the strange circumstances surrounding her death. When the nature of the Henry Sumner affair became known, and the similarity of the cases recognized, he gave the same order regarding Sumner's room."

Hatch stopped, and stared vainly into the pallid, wizened face of the scientist. A curious little chill ran down his spinal column.

"Some time Tuesday night," he continued, after a moment,

"Miss Danbury's room was entered and ransacked; and some time that same night Henry Sumner's room was entered and ransacked. This morning, Wednesday, a clearly defined hand print in blood was found in Miss Danbury's room. It was on the wooden top of a dressing table. It seemed to be a woman's hand. Also, an indistinguishable smudge of blood, which may have been a hand print, was found in Sumner's room!" He paused; The Thinking Machine's countenance was inscrutable. "What possible connection can there be between this young woman of the aristocracy, and this— this longshoreman? Why should— —"

"What chair," questioned The Thinking Machine, "does Professor Meredith hold in the university?"

"Greek," was the reply.

"Who is Mr. Willing?"

"One of the leading lawyers of the city."

"Did you see Miss Danbury's body?"

"Yes."

"Did she have a large mouth, or a small mouth?"

The irrelevancy of the questions, to say nothing of their disjointedness, brought a look of astonishment to Hatch's face; and he was a young man who was rarely astonished by the curious methods of The Thinking Machine. Always he had found that the scientist approached a problem from a new angle.

"I should say a small mouth," he ventured. "Her lips were bruised as if— as if something round, say the size of a twenty-five-cent piece, had been crushed against them. There was a queer, drawn, caved-in look to her mouth and cheeks."

"Naturally," commented The Thinking Machine enigmatically. "And Sumner's was the same?"

"Precisely. You say 'naturally.' Do you mean—" There was eagerness in the reporter's question.

It passed unanswered. For half a minute The Thinking Machine continued to stare into nothingness. Finally:

"I dare say Sumner was of the English type? His name is

English?"

"Yes; a splendid physical man, a hard drinker, I hear, as well as a hard worker."

Again a pause.

"You don't happen to know if Professor Meredith is now or ever has been particularly interested in physics— that is, in natural philosophy?"

"I do not."

"Please find out immediately," the scientist directed tersely. "Willing has handled some legal business for Miss Danbury. Learn what you can from him to the general end of establishing some connection, a relationship possibly, between Henry Sumner and the Honorable Violet Danbury. That, at the moment, is the most important thing to do. Neither of them may have been aware of the relationship, if relationship it was, yet it may have existed. If it doesn't exist, there's only one answer to the problem."

"And that is?" Hatch asked.

"The murders are the work of a madman," was the tart rejoinder. "There's no mystery, of course, in the manner of the deaths of these two."

"No mystery?" the reporter echoed blankly. "Do you mean you know how they—"

"Certainly I know, and you know. The examining physicians know, only they don't know that they know." Suddenly his tone became didactic. "Knowledge that can't be applied is utterly useless," he said. "The real difference between a great mind and a mediocre mind is only that the great mind applies its knowledge." He was silent a moment. "The only problem remaining here is to find the person who was aware of the many advantages of this method of murder."

"Advantages?" Hatch was puzzled.

"From the viewpoint of the murderer there is always a good way and a bad way to kill a person," the scientist told him. "This particular murderer chose a way that was swift, silent, simple,

and sure as the march of time. There was no scream, no struggle, no pistol shot, no poison to be traced, nothing to be seen except—”

“The hole in the left cheek, perhaps?”

“Quite right, and that leaves no clew. As a matter of fact, the only clew we have at all is the certainty that the murderer, man or woman, is well acquainted with physics, or natural philosophy.”

“Then you think,” the newspaper man’s eyes were about to start from his head, “that Professor Meredith—”

“I think nothing,” The Thinking Machine declared briefly. “I want to know what he knows of physics, as I said; also I want to know if there is any connection between Miss Danbury and the longshoreman. If you’ll attend to—”

Abruptly the laboratory door opened and Martha entered, pallid, frightened, her hands shaking.

“Something most peculiar, sir,” she stammered in her excitement.

“Well?” the little scientist questioned.

“I do believe,” said Martha, “that I’m a-going to faint!”

And as an evidence of good faith she did, crumpling up in a little heap before their astonished eyes.

“Dear me! Dear me!” exclaimed The Thinking Machine petulantly. “Of all the inconsiderate things! Why couldn’t she have told us before she did that?”

It was a labor of fifteen minutes to bring Martha around, and then weakly she explained what had happened. She had answered a ring of the telephone, and some one had asked for Professor Van Dusen. She inquired the name of the person talking.

“Never mind that,” came the reply. “Is he there? Can I see him?”

“You’ll have to explain what you want, sir,” Martha had told him. “He always has to know.”

“Tell him I know who murdered Miss Danbury and Henry

Sumner," came over the wire. "If he'll receive me I'll be right up."

"And then, sir," Martha explained to The Thinking Machine, "something must have happened at the other end, sir. I heard another man's voice, then a sort of a choking sound, sir, and then they cursed me, sir. I didn't hear any more. They hung up the receiver or something, sir." She paused indignantly. "Think of him, sir, a-swear^{ing} at *me*!"

For a moment the eyes of the two men met; the same thought had come to them both. The Thinking Machine voiced it.

"Another one!" he said. "The third!"

With no other word he turned and went out; Martha followed him grumblingly. Hatch shuddered a little. The hand of the clock went on to half past seven, to eight. At twenty minutes past eight the scientist re-entered the laboratory.

"That fifteen minutes Martha was unconscious probably cost a man's life, and certainly lost to us an immediate solution of the riddle," he declared peevishly. "If she had told us before she fainted there is a chance that the operator would have remembered the number. As it is, there have been fifty calls since, and there's no record." He spread his slender hands helplessly. "The manager is trying to find the calling number. Anyway, we'll know to-morrow. Meanwhile, try to see Mr. Willing to-night, and find out about what relationship, if any, exists between Miss Danbury and Sumner; also, see Professor Meredith."

The newspaper man telephoned to Mr. Willing's home in Melrose to see if he was in; he was not. On a chance he telephoned to his office. He hardly expected an answer, and he got none. So it was not until four o'clock in the morning that the third tragedy in the series came to light.

The scrubwomen employed in the great building where Mr. Willing had his law offices entered the suite to clean up. They found Mr. Willing there, gagged, bound hand and foot, and

securely lashed to a chair. He was alive, but apparently unconscious from exhaustion. Directly facing him his secretary, Maxwell Pittman, sat dead in his chair. On his face, dark in death, as are the faces of those who die of strangulation, was an expression of unspeakable terror. His parted lips were slightly bruised, as if from a light blow; in his left cheek was an insignificant, bloodless wound!

Within an hour Detective Mallory was on the scene. By that time Mr. Willing, under the influence of stimulants, was able to talk.

"I have no idea what happened," he explained. "It was after six o'clock, and my secretary and I were alone in the offices, finishing up some work. He had stepped into another room for a moment, and I was at my desk. Some one crept up behind me, and held a drugged cloth to my nostrils. I tried to shout, and struggled, but everything grew black, and that's all I know. When I came to myself poor Pittman was there, just as you see him."

Snooping about the offices, Mallory came upon a small lace handkerchief. He seized upon it tensely, and as he raised it to examine it he became conscious of a strong odor of drugs. In one corner of the handkerchief there was a monogram.

"'C. M.,'" he read; his eyes blazed. "Cecelia Montgomery!"

In the grip of an uncontrollable excitement Hutchinson Hatch bulged in upon The Thinking Machine in his laboratory.

"There *was* another," he announced.

"I know it," said The Thinking Machine, still bent over his worktable. "Who was it?"

"Maxwell Pittman," and Hatch related the story.

"There may be two more," the scientist remarked. "Be good enough to call a cab."

"Two more?" Hatch gasped in horror. "Already dead?"

"There may be, I said. One, Cecelia Montgomery, the other the unknown who called on the telephone last night." He started away, then returned to his worktable. "Here's rather an interesting experiment," he said. "See this tube," and he held

aloft a heavy glass vessel, closed at one end, and with a stopcock at the other. "Observe. I'll place this heavy piece of rubber over the mouth of the tube, and then turn the stopcock." He suited the action to the word. "Now take it off."

The reporter tugged at it until the blood rushed to his face, but was unable to move it. He glanced up at the scientist in perplexity.

"What hold it there?"

"Vacuum," was the reply. "You may tear it to pieces, but no human power can pull it away whole." He picked up a steel bodkin, and thrust it through the rubber into the mouth of the tube. As he withdrew it, came a sharp, prolonged, hissing sound. Half a minute later the rubber fell off. "The vacuum is practically perfect— something like one-millionth of an atmosphere. The pin hole permits the air to fill the tube, the tremendous pressure against the rubber is removed, and—" He waved his slender hands.

In that instant a germ of comprehension was born in Hatch's brain; he was remembering some college experiments.

"If I should place that tube to your lips," The Thinking Machine resumed, "and turn the stopcock, you would never speak again, never scream, never struggle. It would jerk every particle of air out of your body, paralyze you; within two minutes you would be dead. To remove the tube I should thrust the bodkin through your cheek, say your left, and withdraw it—"

Hatch gasped as the full horror of the thing burst upon him. "Absence of air in the lungs," the examining physicians had said.

"You see, there was no mystery in the manner of the deaths of these three," The Thinking Machine pointed out. "You knew what I have shown you, the physicians knew it, but neither of you knew you knew it. Genius is the ability to apply the knowledge you may have, not the ability to acquire it." His manner changed abruptly. "Please call a cab," he said again.

Together they were driven straight to the university, and

shown into Professor Meredith's study. Professor Meredith showed his astonishment plainly at the visit, and astonishment became indignant amazement at the first question.

"Mr. Meredith, can you account for every moment of your time from mid-afternoon yesterday until four o'clock this morning?" The Thinking Machine queried flatly. "Don't misunderstand me— I mean every moment covering the time in which it is possible that Maxwell Pittman was murdered?"

"Why, it's a most outrageous—" Professor Meredith exploded.

"I'm trying to save you from arrest," the scientist explained curtly. "If you can account for all that time, and prove your statement, believe me, you had better prepare to do so. Now, if you could give me any information as to—"

"Who the devil are you?" demanded Professor Meredith belligerently. "What do you mean by daring to suggest—"

"My name is Van Dusen," said The Thinking Machine, "Augustus S. F. X. Van Dusen. Long before your time I held the chair of philosophy in this university. I vacated it by request. Later the university honored me with a degree of LL. D."

The result of the self-introduction was astonishing. Professor Meredith, in the presence of the master mind in the sciences, was a different man.

"I beg you pardon," he began.

"I'm curious to know if you are at all acquainted with Miss Danbury's family history," the scientist went on. "Meanwhile, Mr. Hatch, take the cab, and go straight and measure the precise width of the bruise on Pittman's lips; also, see Mr. Willing, if he is able to receive you, and ask him what he can give you as to Miss Danbury's history— I mean her family, her property, her connections, all about everything. Meet me at my house in a couple of hours."

Hatch went out, leaving them together. When he reached the scientist's home The Thinking Machine was just coming out.

"I'm on my way to see Mr. George Parsons, the so-called

copper king," he volunteered. "Come along."

From that moment came several developments so curious, and bizarre, and so widely disassociated that Hatch could make nothing of them at all. Nothing seemed to fit into anything else. For instance, The Thinking Machine's visit to Mr. Parsons' office.

"Please ask Mr. Parsons if he will see Mr. Van Dusen?" he requested of an attendant.

"What about?" the query came from Mr. Parsons.

"It is a matter of life and death," the answer went back.

"Whose?" Mr. Parsons wanted to know.

"His!" The scientist's answer was equally short.

Immediately afterward The Thinking Machine disappeared inside. Ten minutes later he came out, and he and Hatch went off together, stopping at a toy shop to buy a small, high-grade, hard-rubber ball; and later at a department store to purchase a vicious-looking hatpin.

"You failed to inform me, Mr. Hatch, of the measurement of the bruise?"

"Precisely one and a quarter inches."

"Thanks! And what did Mr. Willing say?"

"I didn't see him as yet. I have an appointment to see him in an hour from now."

"Very well," and The Thinking Machine nodded his satisfaction. "When you see him, will you be good enough to tell him, please, that I know— *I know*, do you understand?— who killed Miss Danbury, and Sumner, and Pittman. You can't make it too strong. *I know*— do you understand?"

"Do you know?" Hatch demanded quickly.

"No," frankly. "But convince him that I do, and add that tomorrow at noon I shall place the extraordinary facts I have gathered in possession of the police. At noon, understand; and *I know!*" He was thoughtful a moment. "You might add that I have informed you that the guilty person is a person of high position, whose name has been in no way connected with the crimes— that is, unpleasantly. You don't know that name; no

one knows it except myself. I shall give it to the police at noon to-morrow."

"Anything else?"

"Drop in on me early to-morrow morning, and bring Mr. Mallory."

Events were cyclonic on that last morning. Mallory and Hatch had hardly arrived when there came a telephone message for the detective from police headquarters. Mrs. Cecelia Montgomery was there. She had come in voluntarily, and asked for Mr. Mallory.

"Don't rush off now," requested The Thinking Machine, who was pottering around among the retorts, and microscopes and what not on his worktable. "Ask them to detain her until you get there. Also, ask her just what relationship existed between Miss Danbury and Henry Sumner." The detective went out; the scientist turned to Hatch. "Here is a hatpin," he said. "Some time this morning we shall have another caller. If, during the presence of that person in this room, I voluntarily put anything to my lips, a bottle, say, or anything is forced upon me, and I do not remove it in just thirty seconds, you will thrust this hatpin through my cheek. Don't hesitate."

"Thrust it through?" the reporter repeated. An uncanny chill ran over him as he realized the scientist's meaning. "Is it absolutely necessary to take such a chance to—"

"I say if I don't remove it!" The Thinking Machine interrupted shortly. "You and Mallory will be watching from another room; I shall demonstrate the exact manner of the murders." There was a troubled look in the reporter's face. "I shall be in no danger," the scientist said simply. "The hatpin is merely a precaution if anything should go wrong."

After a little Mallory entered, with clouded countenance.

"She denies the murders," he announced, "but admits that the hand prints in blood are hers. According to her yarn, she searched Miss Danbury's room and Sumner's room after the murders to find some family papers which were necessary to

establish claims to some estate— I don't quite understand. She hurt her hand in Miss Danbury's room, and it bled a lot, hence the hand print. From there she went straight to Sumner's room, and presumably left the smudge there. It seems that Sumner was a distant cousin of Miss Danbury's— the only son of a younger brother who ran away years ago after some wild escapade, and came to this country. George Parsons, the copper king, is the only other relative in this country. She advises us to warn him to be on his guard— seems to think he will be the next victim."

"He's already warned," said The Thinking Machine, "and he has gone West on important business."

Mallory stared.

"You seem to know more about this case than I do," he sneered.

"I do," asserted the scientist, "quite a lot more."

"I think the third degree will change Mrs. Montgomery's story some," the detective declared. "Perhaps she will remember better—"

"She is telling the truth."

"Then why did she run away? How was it we found her handkerchief in Mr. Willing's office after the Pittman affair? How was it—"

The Thinking Machine shrugged his shoulders, and was silent. A moment later the door opened, and Martha appeared, her eyes blazing with indignation.

"That man who swore at me over the telephone," she announced distinctly, "wants to see you, sir."

Mallory's keen eyes swept the faces of the scientist and the reporter, trying to fathom the strange change that came over them.

"You are sure, Martha?" asked The Thinking Machine.

"Indeed I am, sir." She was positive about it. "I'd never forget his voice, sir."

For an instant her master merely stared at her, then

dismissed her with a curt, "Show him in," after which he turned to the detective and Hatch.

"You will wait in the next room," he said tersely. "If anything happens, Mr. Hatch, remember."

The Thinking Machine was sitting when the visitor entered—a middle-aged man, sharp-featured, rather spare, brisk in his movements, and distinctly well groomed. It was Herbert Willing, attorney. In one hand he carried a small bag. He paused an instant, and gazed at the diminutive scientist curiously.

"Come in, Mr. Willing," The Thinking Machine greeted. "You want to see me about—" He paused questioningly.

"I understand," said the lawyer suavely, "that you have interested yourself in these recent—er—remarkable murders, and there are some points I should like to discuss with you. I have some papers in my bag here, which"—he opened it—"may be of interest. Some er—newspaper man informed me that you have certain information indicating the person—"

"I know the name of the murderer," said The Thinking Machine.

"Indeed! May I ask who it is?"

"You may. His name is Herbert Willing."

Watching tensely Hatch saw The Thinking Machine pass his hand slowly across his mouth as if to stifle a yawn; saw Willing leap forward suddenly with what seemed to be a bottle in his hand; saw him force the scientist back into his chair, and thrust the bottle against his lips. Instantly came a sharp click, and some hideous change came over the scientist's wizened face. His eyes opened wide in terror, his cheeks seemed to collapse. Instinctively he grasped the bottle with both hands.

For a scant second Willing stared at him, his countenance grown demoniacal; then he swiftly took something else from the small bag, and smashed it on the floor. It was a drinking glass!

After which the scientist calmly removed the bottle from his lips.

"The broken drinking glass," he said quietly, "completes the

evidence.”

Hutchinson Hatch was lean and wiry, and hard as nails; Detective Mallory’s bulk concealed muscles of steel, but it took both of them to overpower the attorney. Heedless of the struggling trio The Thinking Machine was curiously scrutinizing the black bottle. The mouth was blocked by a small rubber ball, which he had thrust against it with his tongue a fraction of an instant before the dreaded power the bottle held had been released by pressure upon a cunningly concealed spring. When he raised his squinting eyes at last, Willing, manacled, was glaring at him in impotent rage. Fifteen minute later the four were at police headquarters; Mrs. Montgomery was awaiting them.

“Mrs. Montgomery, why,” — and the petulant pale-blue eyes of The Thinking Machine were fixed upon her face — “why didn’t you go to Concord, as you had said?”

“I did go there,” she replied. “It was simply that when news came of Miss Danbury’s terrible death I was frightened, I lost my head; I pleaded with my friends not to let it be known that I was there, and they agreed. If any one had searched their house I would have been found; no one did. At last I could stand it no longer. I came to the city, and straight here to explain everything I knew in connection with the affair.”

“And the search you made of Miss Danbury’s room? And of Sumner’s room?”

“I’ve explained that,” she said. “I knew of the relationship between poor Harry Sumner and Violet Danbury, and I knew each of them had certain papers which were of value as establishing their claims to a great estate in England now in litigation. I was sure those papers would be valuable to the only other claimant, who was—”

“Mr. George Parsons, the copper king,” interposed the scientist. “You didn’t find the papers you sought because Willing had taken them. That estate was the thing he wanted, and I dare say by some legal jugglery he would have gotten it.” Again he

turned to face Mrs. Montgomery. "Living with Miss Danbury, as you did, you probably held a key to her apartment? Yes. You had only the difficulty then, of entering the hotel late at night, unseen, and that seemed to be simple. Willing did it the night he killed Miss Danbury, and left it unseen, as you did. Now, how did you enter Sumner's room?"

"It was a terrible place," and she shuddered slightly. "I went in alone, and entered his room through a window from a fire escape. The newspapers, you will remember, described its location precisely, and—"

"I see," The Thinking Machine interrupted. He was silent a moment. "You're a shrewd man, Willing, and your knowledge of natural philosophy is exact if not extensive. Of course, I knew if you thought I knew too much about the murders you would come to me. You did. It was a trap, if that's any consolation to you. You fell into it. And, curiously enough, I wasn't afraid of a knife or a shot; I knew the instrument of death you had been using was too satisfactory and silent for you to change. However, I was prepared for it, and— I think that's all." He arose.

"All?" Hatch and Mallory echoed the word. "We don't understand—"

"Oh!" and The Thinking Machine sat down again. "It's logic. Miss Danbury was dead— neither shot, stabbed, poisoned, nor choked; 'absence of air in her lungs,' the physicians said. Instantly the vacuum bottle suggested itself. That murder, as was the murder of Sumner, was planned to counterfeit suicide, hence the broken goblet on the floor. Incidentally the murder of Sumner informed me that the crimes were the work of a madman, else there was an underlying purpose which might have arisen through a relationship. Ultimately I established that relationship through Professor Meredith, in whom Miss Danbury had confided to a certain extent; at the same time he convinced me of his innocence in the affair.

"Now," he continued, after a moment, "we come to the

murder of Pittman. Pittman learned, and tried to phone me, who the murderer was. Willing heard that message. He killed Pittman, then bound and gagged himself, and waited. It was a clever ruse. His story of being overpowered and drugged is absurd on the face of it, yet he asked us to believe that by leaving a handkerchief of Mrs. Montgomery's on the floor. That was reeking with drugs. Mr. Hatch can give you more of these details." He glanced at his watch. "I'm due at a luncheon, where I am to make an address to the Society of Psychical Research. If you'll excuse me—"

He went out; the others sat staring after him.

15. The Problem of the Souvenir Cards

THERE were three of the post cards. The first one was a vividly colored picture of the Capitol at Washington. It was postmarked, "Philadelphia, November 12, 2:30 P.M." Below the picture, in a small copperplate hand, were these figures and symbols: "I-28-38-4 x 47-30-2 x 21-19-8 x 65-5-3 x 29-32-11 x 40-2-9x."

The second post card was a picture of Park Square, Boston, with the majestic figures of Lincoln and the slave in the foreground. This, too, was postmarked Philadelphia, but the date was November 13. The symbols and figures were unquestionably written by the same hand as those on the first: "II-155-19-9 x 205-2-8 x agree x 228-31-2 x present tense x 235-13-4."

The third card was a colored reproduction of an idyllic bayou near New Orleans. Again the postmark was Philadelphia, but the date was November 14. This card contained only: "III-41-1-9 x 181-15-10 x press."

Professor Augustus S. F. X. Van Dusen— The Thinking Machine— turned and twisted the post cards in his slender fingers while he studied them through squinting, watery, blue

eyes. At last he laid them on a table beside him, and sank back into his chair, with long white fingers pressed tip to tip. He was in a receptive mood.

"Well?" he demanded abruptly.

The bearded stranger who had offered the cards for his scrutiny was gazing at the diminutive figure and the drawn, petulant face of the scientist, seemingly in mingled wonder and amusement. It was difficult for him to associate this crabbed little man with those achievements which had placed his name so high in the sciences. After a moment the visitor's gaze wavered a little and dropped.

"My name is William C. Colgate," he began. "Sometime since — four weeks and three days, to be exact — a diamond was stolen from my house in this city, and no trace of it has ever been found. It was one I bought uncut in South Africa five years ago, and its weight is about thirty carats. When cut I imagine it will be eighteen to twenty carats, and it is, as it stands now, worth about forty thousand dollars. You may have read something of the theft in the newspapers?"

"I never read the newspapers," remarked The Thinking Machine.

"Well, in that event," and Colgate smiled, "I can briefly state the facts in the case. I have for several years had in my employment a secretary, Charles Travers. He is about twenty-five years old. Within the last four or five months I have noticed a change in his manner. Where formerly he had been quiet and unassuming, he has, through evil associations I dare say, grown to be a little wild, and, I believe, has lived beyond his income. I took occasion twice to remonstrate with him. The first time he seemed contrite and repentant; the second time he grew angry, and the following day disappeared. The diamond went with him."

"Do you know that?" demanded The Thinking Machine.

"I know it as well as one may know anything," replied Colgate positively. "I doubt if anyone except Travers knew where

I kept the jewel. Certainly my servants did not, and certainly my wife and two daughters did not. Besides my wife and daughters have been in Europe for two months. The police seem to be unable to learn anything, so I came to you."

"Just where did you keep the jewel?"

"In a drawer of my desk," was the reply. "Ultimately I had intended to have it cut and present it to my oldest daughter, possibly on the occasion of her marriage. Now—" Colgate waved his hand.

The Thinking Machine sat silent for several minutes. His squint eyes were turned steadily upward and several tiny lines appeared in the domelike brow. "The problem then seems to be merely one of finding your secretary," he stated at last. "The diamond is of course so large that it would be absurd to attempt to dispose of it in its present shape. Travers is an intelligent man; we shall give him credit for realizing this. And yet if it should be cut up into smaller stones its value would dwindle to a tenth part of what it is now. Under those circumstances, would he have it cut up?"

"That is one of the questions which I should like to have answered."

For the second time The Thinking Machine picked up and examined the three post cards. "And what have these to do with it?" he demanded.

"That's another question I should like to have answered," said Colgate. "I can only believe that they in some way bear on the mystery surrounding the disappearance of the gem. Perhaps they give a clue to where it is now."

"This is Travers's handwriting?"

"Yes."

"The cards obviously constitute a cipher of some sort," explained the scientist. "Were you and Travers accustomed to communicating in cipher?"

"Not at all."

"Then why is this in cipher?" demanded The Thinking

Machine belligerently. He glared at Colgate much as if he held him to blame.

Colgate shrugged his shoulders.

"Of course," continued the scientist, "I can find out what it means. It is elementary in character, and yet I doubt if, after we know what is in it, it will be particularly illuminating. Still, giving Travers credit for intelligence, I should imagine this to be an offer to return the diamond, probably for a consideration. But why in cipher?"

Colgate did not seem to be able to add to what he had already said, and after a few minutes took his leave, with instructions from The Thinking Machine to return on the following day, after the scientist had had an opportunity to study the post cards. He called at the appointed hour.

"Have you three-volume book of any sort that you read or refer to frequently?"

For some reason Colgate seemed a little startled. It was only momentary, however. "I suppose I have several books of three volumes," he replied.

"No particular one that your secretary would know that you read frequently?" insisted the scientist.

Again some strange impalpable expression flitted across Colgate's face. "No," he said after a moment.

The Thinking Machine arose. "It will be necessary then," he said, "for me to go over your library and see if I can't find the book to which this cipher refers."

"Book?" asked Colgate curiously. "If the cipher has no relation to the diamond, I don't see that—"

"Of course you don't see!" snapped The Thinking Machine. "Come along and let me see."

Colgate seemed a little perturbed by the suggestion. He folded his immaculate gloves over and over as he stared at the inscrutable face before him. "It would be impossible," he said at last, "to find anything in my library just now. As I said, my wife and daughters are abroad, and during their absence I have taken

occasion to have my library and one or two other rooms redecorated and refinished. All my books meanwhile are packed away, helter skelter."

The Thinking Machine sat down again and stared at him inquiringly. "Then when your library is in order again you may call," he said tersely. "I can do nothing until I see the books."

"But— but—" stammered Colgate.

"Good day," said The Thinking Machine curtly.

Colgate went away. It was not till three days later that he reappeared. If one might have judged by his manner, he had achieved something in his absence; yet when he spoke it was in the same exquisitely modulated tone of the first visit.

"The work of redecorating has been completed," he told The Thinking Machine. "My library is again in order, and you may examine it at your leisure. If you care to go now, my carriage is at the door."

The Thinking Machine stared at him for a moment, then picked up his hat. At the door of the Colgate mansion Colgate and the scientist were met by a graven-faced footman, who received their hats and coats in silence. Colgate conducted his guest straight into the library. It was a magnificently appointed place, reflecting in its every detail the splendid purchasing power of money. To this sheer luxury, however, The Thinking Machine was oblivious. His undivided attention was on the book shelves.

From one end of the long room to the other he walked time after time, reading the titles of the books as he passed. There were Dickens, Balzac, Kipling, Stevenson, Thackeray, Zola— all of them. Three or four times he paused to draw out a volume and examine it. Each time he replaced it without a word and continued his search. Colgate stood by, watching him curiously.

The Thinking Machine had just paused to draw out one of the Dumas books when the stolid-faced footman appeared in the door with a telegram.

"Is this for you, sir?" he asked of Colgate.

"Yes," replied Colgate.

He drew out the yellow sheet and permitted the envelope to fall to the floor. The Thinking Machine picked it up with something like eagerness in his manner. It was directed to "William C. Colgate." The scientist looked almost astonished as he turned again to the book shelves.

It was ten minutes later that The Thinking Machine took out three volumes together. These comprised the famous old English novel, "Ten Thousand a Year," a rare and valuable first edition. The leaves of volume 1 fluttered through his fingers until he came to page 28. After a moment he said "Ah!" Then he went on to page 47. He studied that for a moment or more, after which he said "Ah!" once again.

"What is it?" inquired Colgate quickly.

The Thinking Machine turned his cold, squint eyes up into the eager face above him. "It is the key to the cipher," he said.

"What is it? Read it!" commanded Colgate. His clear, alert eyes were fastened on the, to him, meaningless page. He sought vainly there something to account for the scientist's exclamation. But he saw only words— a page of words with no apparent meaning beyond the text of the story. "What is it?" he demanded again, and there was a little glitter in his eye. "Does it say where the diamond is?"

"Considering the fact that I have seen only two words of a possible twenty or thirty, I don't know what it says," declared The Thinking Machine aggressively. "The best I can say now is that with the aid of these books I shall find the diamond."

For half an hour or more the scientist was busy running through the books in an aimless sort of way. Finally he closed the third volume with a snap and stood up.

"Travers says that he will return the gem for ten thousand dollars," he announced.

"Oh, he does, does he?" Colgate's tone was a sneer. Again in his face The Thinking Machine read some subtle quality which brought a slight wrinkle of perplexity to his brow.

"You don't have to pay it, you know," he explained tartly. "I can get it without the ten thousand dollars, of course."

"Well, get it, then!" said Colgate a little impatiently. "I want the diamond, and it is absurd to suppose that I shall pay ten thousand dollars for my own property. Come on! Let's do what is to be done immediately."

"I'll do what is to be done immediately; but I will do it without your assistance," remarked The Thinking Machine. "I shall send for you to-morrow. When you come the diamond will be in my possession. Good day."

Colgate stared after him blankly as he went out.

The Thinking Machine was talking over the telephone with Hutchinson Hatch, reporter.

"Do you know William C. Colgate by sight?" he demanded.

"Very well," Hatch replied.

"Is he red-headed?"

"No."

"Good by."

On the following morning a short advertisement appeared in all the city newspapers. It was simply:

Will give ten thousand dollars. Matter is not in hands of the police. To insure your safety, telephone 1103 Bay and arrange details.

It was only a few minutes past nine o'clock that morning when The Thinking Machine was called to the telephone. For some reason he had difficulty in understanding, possibly due to the spluttering of the receiver. Then he did understand, and sat down for some time, apparently to consider what he had heard. Later he telephoned to Hutchinson Hatch.

"It's about this theft of the Colgate diamond," he explained. "The secretary, Travers, who is wanted for the theft, is now somewhere in the North End, either drunk or drugged, and possibly disguised. I imagine his photograph has been in all the

newspapers. I have been talking to him over the telephone, and he is to call me again about eleven o'clock. Go down to the North End near the corner of Hanover and Blank Streets, hire a telephone for the morning, and call me. Remain at the phone from half-past ten until I call you. You are to get Travers. When you get him bring him here. Don't notify the police."

"But will I get him?" asked the reporter.

"If you don't you are stupid," retorted The Thinking Machine.

At five minutes of eleven o'clock the scientist's telephone rang. He was sitting staring at it at the moment, but instead of answering stepped to the door and called Martha, his aged servant.

"Answer the telephone," he directed, "and tell whoever is there that I am not here. Tell them I shall return in ten minutes, and to be sure to call me again."

Martha followed the instructions and hung up the receiver. Instantly The Thinking Machine went to the telephone.

"Can you tell me, please, the number of the telephone which just called me?" he asked quickly. "No, I don't want a connection. Number 34710 North, in a café at Hanover and Blank Streets? Thanks."

A minute later he had Hatch on the wire again. "Travers will call me in five minutes from 34710 North, in a café at Hanover and Blank Streets," he said. "Get him and bring him here as quickly as you can. Good by."

So it came about that within less than an hour a cab rushed up to the door, and Hutchinson Hatch, accompanied by a young man, entered. The man was Travers. A week's scrubby beard was on his chin, his face was perfectly pallid; the fever of drink and fear glittered in his eyes. Hatch had to support him to a chair, in which he dropped back limply. The Thinking Machine scowled down into the young man's face, and was met by a fishy, imbecilic stare in return.

"Are you Mr. Travers?" inquired The Thinking Machine.

"That's all right— that's all right," murmured the young man,

and overcome by the exertion of speech his head dropped back and in a moment he was sound asleep.

Without apparent compunction The Thinking Machine searched his pockets. After a moment he found what seemed to be a rough rock crystal. He squinted at it closely as he turned and twisted it back and forth in his hand, then passed it to Hatch for inspection.

"That's worth forty thousand dollars," he remarked casually.

"Is this the—"

"It's the Colgate diamond," interrupted The Thinking Machine. "I surmised that he would have it somewhere about him, because he would have no place to hide it. And now for the second man— the brains of the theft. First I shall telephone for Colgate. Look at him when he enters; for I think you will be greatly surprised. And above all, remember to be careful."

Looking deeply into the quiet, squint eyes of the scientist, Hatch read a warning. He understood and nodded. Travers, stupefied, was removed to an adjoining room.

A few minutes later there was a rattle of carriage wheels, the door bell rang, and Colgate entered. Hatch glanced at him, then turned quickly to look out of a window.

"You have the diamond?" burst out Colgate suddenly.

"I said I would have it when you came," retorted The Thinking Machine. "Now for these post cards," and the scientist produced the three cards that had been handed to him at first. "Perhaps you would be interested to know what was really on them?"

"I haven't the slightest curiosity," said Colgate impatiently. "All I want is the diamond. If you will give me that, I think perhaps that will terminate this affair, and there will be no necessity of taking up more of your time."

"Of course you have no desire to prosecute Travers?" asked The Thinking Machine. There was a velvety note in the crabbed voice. Hatch glanced at him.

"I don't think I care to prosecute him," said Colgate steadily.

"I thought perhaps you would not," rejoined The Thinking Machine enigmatically. "But as to these post cards. They constitute what is known as the book cipher. For your information I may state that it is always possible to know a book cipher by the fact that a small number, rarely above twelve or fourteen, always precedes the X; the X merely divides the words. For instance, on the first card we have I-28-38-4; in other words, volume one, page 28, line 38, and the fourth word of that line. Unless one knows or can learn the name of the book which is the basis of the cipher, it is perhaps the most difficult of all. Any ordinary cipher may be solved precisely as Poe solved his great cipher in 'The Gold Bug.' "

"But I am not at all interested—" protested Colgate.

"So really all that was necessary for me to do was to find out what book was the basis of this particular cipher," continued The Thinking Machine to Hatch, without heeding his visitor's remark. "I knew of course it was some book in Mr. Colgate's home. The clue to what book was given, either wittingly or unwittingly, by the single I, the two I's and the three I's on the first, second, and third cards. Did these represent volumes? I found a dozen three volume books in Mr. Colgate's library, but in each instance there was no connection in the first three or four words which I found in accordance with the numbers given; that is, until I came to 'Ten Thousand a Year.' The first word I found in that was 'will'; the second, page 47, line 30, second word, was 'return'; the third was 'diamond.' So I knew that was the book I wanted. Here is the full meaning of the cipher as it appears on the three cards, as I have transcribed it."

He handed Colgate a slip of paper, on which was written:

Will return diamond for ten thousand. If you agree informed [present tense— i.e., inform] me in daily press.

"This all seems very clever and very curious indeed," commented Colgate; "but really I do not think—"

"The book of Mr. Colgate's is a first edition— there is also a first edition in the public library," the scientist went on placidly; "so Travers had no difficulty on that score. We shall admit that the cards were mailed in Philadelphia; perhaps he went there and later returned to this city. The manner in which I got possession of the diamond— by first discovering Travers through an advertisement and then keeping him at the telephone until he was inveigled here by my assistant— is possibly of no interest; it was all very easily done by a prearranged plan with the telephone exchange; so now, Mr.— Mr.—"

"Colgate," his visitor supplied, as if surprised at the hesitancy.

"I mean your real name," said the scientist quietly.

There was a sudden tense silence; Hatch had come a little closer, and was staring at the stranger with keen, inquiring eyes.

"This is not the Mr. William C. Colgate you know, Mr. Hatch?"

"No."

"Do you happen to have an idea who he is?"

"If I am not mistaken," Hatch replied calmly, "this is a gentleman I have met before on an exceedingly interesting occasion— Mr. Bradlee Cunnyngnam Leighton."

At the name the erstwhile Colgate turned upon the reporter with a snarl. There was a quick movement of his right hand, and Hatch found himself blinking down the barrel of a revolver, as Leighton slowly moved backward toward the door.

The Thinking Machine moved around behind the aggressor. "Now, Mr. Leighton," he said almost pleasantly, "if you don't lower that revolver I'll blow your brains out."

For one instant Leighton hesitated, then glanced back quickly toward the scientist. That diminutive man stood calmly, with his hands in his pockets. Instantly Hatch leaped. There was a quick, sharp struggle, a few muttered curses, and then the discomfited Leighton, in his turn, was gazing down the revolver barrel.

"Won't you gentlemen sit down?" suggested The Thinking

Machine.

They were all sitting down when Detective Mallory rushed up from police headquarters. Leighton was farthest from the door. The Thinking Machine sat staring at him with the revolver held in position for quick use.

"Ah, Mr. Mallory," he said, without turning his head or glancing back. "This is Mr. Bradlee Cunyngham Leighton. You may have heard of him before?"

"Do you mean the Englishman who brought the Varron necklace to this country?" blurted out the detective.

"The same man of the carrier pigeon case," said Hatch grimly.

"I should like particularly to call your attention to Mr. Leighton," continued The Thinking Machine. "He is a man of accomplishments. We know how he distinguished himself by the simple expedient of using carrier pigeons in the Varron necklace affair. In this case, he has risen to greater heights. First— I am assuming some things— he plotted with young Travers to steal the Colgate diamond. In some manner, which is not essential here, Travers got the diamond and sought to profit by the theft alone by negotiating its return for ten thousand dollars. Travers wrote a cipher to Mr. Colgate making the proposition— it was possible he knew Mr. Colgate would understand his cipher. I shall give Leighton credit for anticipating just this possibility and intercepting the post cards. They meant nothing to him; so— please note this— he came to me as Mr. Colgate, knowing that Mr. Colgate was in Europe with his family, and sought my assistance in recovering the jewel from his fellow conspirator. The sublime audacity of all these conceptions marks Mr. Leighton as little short of a genius in his particular profession.

"Only once was Mr. Leighton embarrassed. That was when I told him I should have to visit his library. But he even rose to this necessity brilliantly. He delayed my visit for a day or so, and in some manner, possibly by forgery, secured an entrance to Mr. Colgate's home, perhaps as a cousin of the same name. There he

received me. Two or three things had happened to arouse a doubt in my mind as to whether he was the real Mr. Colgate.

"First was his hesitancy in connection with my visit to the library; then while I was in the house a telegram came for Mr. William C. Colgate. A servant asked Mr. Leighton in my presence if the telegram was for him. That question would never have been asked if he had been the real William C. Colgate. Then finally I asked Mr. Hatch over the phone if William C. Colgate was red-headed. William C. Colgate is not red-headed. This gentleman is, therefore he is not William C. Colgate. I only knew this much. Mr. Hatch recognized him as Leighton. He saw him at the time you were all interested in his escape from a Scotland Yard man— Conway, who wanted him for stealing a necklace. That is all, I think."

"But the diamond and Travers?" asked the detective.

"Here is the diamond," said The Thinking Machine, and he produced it from one of his pockets. "Travers is lying on a bed in the next room in a drunken stupor."

16. The Problem of the Stolen Rubens

Associated Sunday Magazine Feb 17 1907

MATTHEW KALE made fifty million dollars out of axle grease, after which he began to patronize the high arts. It was simple enough: he had the money, and Europe had the old masters. His method of buying was simplicity itself. There were five thousand square yards, more or less, in the huge gallery of his marble mansion which were to be covered, so he bought five thousand square yards, more or less, of art. Some of it was good, some of it fair, and much of it bad. The chief picture of the collection was a Rubens, which he had picked up in Rome for fifty thousand dollars.

Soon after acquiring his collection, Kale decided to make certain alterations in the vast room where the pictures hung.

They were all taken down and stored in the ball room, equally vast, with their faces toward the wall. Meanwhile Kale and his family took refuge in a nearby hotel.

It was at this hotel that Kale met Jules de Lesseps. De Lesseps was distinctly French, the sort of Frenchman whose conversation resembles calisthenics. He was nervous, quick, and agile, and he told Kale in confidence that he was not only a painter himself, but was a connoisseur in the high arts. Pompous in the pride of possession, Kale went to a good deal of trouble to exhibit his private collection for de Lesseps' delectation. It happened in the ball room, and the true artist's delight shone in the Frenchman's eyes as he handled the pieces which were good. Some of the others made him smile, but it was an inoffensive sort of smile.

With his own hands Kale lifted the precious Rubens and held it before the Frenchman's eyes. It was a "Madonna and Child," one of those wonderful creations which have endured through the years with all the sparkle and color beauty of their pristine days. Kale seemed disappointed because de Lesseps was not particularly enthusiastic about this picture.

"Why, it's a Rubens!" he exclaimed.

"Yes, I see," replied de Lesseps.

"It cost me fifty thousand dollars."

"It is perhaps worth more than that," and the Frenchman shrugged his shoulders as he turned away.

Kale looked at him in chagrin. Could it be that de Lesseps did not understand that it was a Rubens, and that Rubens was a painter? Or was it that he had failed to hear him say that it cost him fifty thousand dollars. Kale was accustomed to seeing people bob their heads and open their eyes when he said fifty thousand dollars; therefore, "Don't you like it?" he asked.

"Very much indeed," replied de Lesseps; "but I have seen it before. I saw it in Rome just a week or so before you purchased it."

They rummaged on through the pictures, and at last a

Whistler was turned up for their inspection. It was one of the famous Thames series, a water color. De Lesseps' face radiated excitement, and several times he glanced from the water color to the Rubens as if mentally comparing the exquisitely penciled and colored modern work with the bold, masterly technic of the old.

Kale misunderstood the silence. "I don't think much of this one myself," he explained apologetically. "It's a Whistler, and all that, and it cost me five thousand dollars, and I sort of had to have it, but still it isn't just the kind of thing that I like. What do you think of it?"

"I think it is perfectly wonderful!" replied the Frenchman enthusiastically. "It is the essence, the superlative, of modern work. I wonder if it would be possible," and he turned to face Kale, "for me to make a copy of that? I have some slight skill in painting myself, and dare say I could make a fairly creditable copy of it."

Kale was flattered. He was more and more impressed each moment with the picture. "Why, certainly," he replied. "I will have it sent up to the hotel, and you can—"

"No, no, no!" interrupted de Lesseps quickly. "I wouldn't care to accept the responsibility of having the picture in my charge. There is always a danger of fire. But if you would give me permission to come here— this room is large and airy and light, and besides it is quiet— —"

"Just as you like," said Kale magnanimously. "I merely thought the other way would be most convenient for you."

De Lesseps drew near, and laid one hand on the millionaire's arm. "My dear friend," he said earnestly, "if these pictures were my pictures, I shouldn't try to accommodate anybody where they were concerned. I dare say the collection as it stands cost you—"

"Six hundred and eighty-seven thousand dollars," volunteered Kale proudly.

"And surely they must be well protected here in your house

during your absence?"

"There are about twenty servants in the house while the workmen are making the alterations," said Kale, "and three of them don't do anything but watch this room. No one can go in or out except by the door we entered— the others are locked and barred— and then only with my permission, or a written order from me. No, sir, nobody can get away with anything in this room."

"Excellent— excellent!" said de Lesseps admiringly. He smiled a little bit. "I am afraid I did not give you credit for being the far-sighted business man that you are." He turned and glanced over the collection of pictures abstractedly. "A clever thief, though," he ventured, "might cut a valuable painting, for instance the Rubens, out of the frame, roll it up, conceal it under his coat, and escape."

Kale laughed pleasantly and shook his head.

It was a couple of days later at the hotel that de Lesseps brought up the subject of copying the Whistler. He was profuse in his thanks when Kale volunteered to accompany him to the mansion and witness the preliminary stages of the work. They paused at the ball room door.

"Jennings," said Kale to the liveried servant there, "this is Mr. de Lesseps. He is to come and go as he likes. He is going to do some work in the ball room here. See that he isn't disturbed."

De Lesseps noticed the Rubens leaning carelessly against some other pictures, with the holy face of the Madonna toward them. "Really, Mr. Kale," he protested, "that picture is too valuable to be left about like that. If you will let your servants bring me some canvas, I shall wrap it and place it up on the table here off the floor. Suppose there were mice here!"

Kale thanked him. The necessary orders were given, and finally the picture was carefully wrapped and placed beyond harm's reach, whereupon de Lesseps adjusted himself, paper, easel, stool, and all, and began his work of copying. There Kale left him.

Three days later Kale just happened to drop in, and found the artist still at his labor.

"I just dropped by," he explained, "to see how the work in the gallery was getting along. It will be finished in another week. I hope I am not disturbing you?"

"Not at all," said de Lesseps; "I have nearly finished. See how I am getting along?" He turned the easel toward Kale.

The millionaire gazed from that toward the original which stood on a chair near by, and frank admiration for the artist's efforts was in his eyes. "Why, it's fine!" he exclaimed. "It's just as good as the other one, and I bet you don't want any five thousand dollars for it— eh?"

That was all that was said about it at the time. Kale wandered about the house for an hour or so, then dropped into the ball room where the artist was just getting his paraphernalia together, and they walked back to the hotel. The artist carried under one arm his copy of the Whistler, loosely rolled up.

Another week passed, and the workmen who had been engaged in refinishing and decorating the gallery had gone. De Lesseps volunteered to assist in the work of rehanging the pictures, and Kale gladly turned the matter over to him. It was in the afternoon of the day this work began that de Lesseps, chatting pleasantly with Kale, ripped loose the canvas which enshrouded the precious Rubens. Then he paused with an exclamation of dismay. The picture was gone; the frame which had held it was empty. A thin strip of canvas around the inside edge showed that a sharp penknife had been used to cut out the painting.

All of these facts came to the attention of Professor Augustus S. F. X. Van Dusen— The Thinking Machine. This was a day or so after Kale had rushed into Detective Mallory's office at police headquarters, with the statement that his Rubens had been stolen. He banged his fist down on the detective's desk and roared at him.

"It cost me fifty thousand dollars!" he declared violently.

"Why don't you do something? What are you sitting there staring at me for?"

"Don't excite yourself, Mr. Kale," the detective advised. "I will put my men at work right now to recover the— the— What is a Rubens, anyway?"

"It's a picture!" bellowed Mr. Kale. "A piece of canvas with some paint on it, and it cost me fifty thousand dollars— don't you forget that!"

So the police machinery was set in motion to recover the painting. And in time the matter fell under the watchful eye of Hutchinson Hatch, reporter. He learned the facts preceding the disappearance of the picture, and then called on de Lesseps. He found the artist in a state of excitement bordering on hysteria; an intimation from the reporter of the object of his visit caused de Lesseps to burst into words.

"*Mon Dieu!* it is outrageous!" he exclaimed. "What can I do? I was the only one in the room for several days. I was the one who took such pains to protect the picture. And now it is gone! The loss is irreparable. What can I do?"

Hatch didn't have any very definite idea as to just what he could do, so he let him go on. "As I understand it, Mr. de Lesseps," he interrupted at last, "no one else was in the room, except you and Mr. Kale, all the time you were there?"

"No one else."

"And I think Mr. Kale said that you were making a copy of some famous water color; weren't you?"

"Yes, a Thames scene, by Whistler," was the reply. "That is it, hanging over the mantel."

Hatch glanced at the picture admiringly. It was an exquisite copy, and showed the deft touch of a man who was himself an artist of great ability.

De Lesseps read the admiration in his face. "It is not bad," he said modestly. "I studied with Carolus Duran."

With all else that was known, and this little additional information, which seemed of no particular value to the

reporter, the entire matter was laid before The Thinking Machine. That distinguished man listened from beginning to end without comment.

"Who had access to the room?" he asked finally.

"That is what the police are working on now," was the reply. "There are a couple of dozen servants in the house, and I suppose, in spite of Kale's rigid orders, there was a certain laxity in their enforcement."

"Of course that makes it more difficult," said The Thinking Machine in the perpetually irritated voice which was so distinctly a part of himself. "Perhaps it would be best for us to go to Mr. Kale's home and personally investigate."

Kale received them with the reserve which all rich men show in the presence of representatives of the press. He stared frankly and somewhat curiously at the diminutive figure of the scientist, who explained the object of their visit.

"I guess you fellows can't do anything with this," the millionaire assured them. "I've got some regular detectives on it."

"Is Mr. Mallory here now?" asked The Thinking Machine curtly.

"Yes, he is up stairs in the servants' quarters."

"May we see the room from which the picture was taken?" inquired the scientist, with a suave intonation which Hatch knew well.

Kale granted the permission with a wave of the hand, and ushered them into the ball room, where the pictures had been stored. From the relative center of this room The Thinking Machine surveyed it all. The windows were high. Half a dozen doors leading out into the hallways, to the conservatory, and quiet nooks of the mansion offered innumerable possibilities of access. After this one long comprehensive squint, The Thinking Machine went over and picked up the frame from which the Rubens had been cut. For a long time he examined it. Kale's impatience was painfully evident. Finally the scientist turned to

him.

"How well do you know M. de Lesseps?" he asked.

"I've known him for only a month or so. Why?"

"Did he bring you letters of introduction, or did you meet him merely casually?"

Kale regarded him with evident displeasure. "My own personal affairs have nothing whatever to do with this matter," he said pointedly. "Mr. de Lesseps is a gentleman of integrity, and certainly he is the last whom I would suspect of any connection with the disappearance of the picture."

"That is usually the case," remarked The Thinking Machine tartly. He turned to Hatch. "Just how good a copy was that he made of the Whistler picture?" he asked.

"I have never seen the original," Hatch replied; "but the workmanship was superb. Perhaps Mr. Kale wouldn't object to us seeing—"

"Oh, of course not," said Kale resignedly. "Come in; it's in the gallery."

Hatch submitted the picture to a careful scrutiny. "I should say that the copy is well nigh perfect," was his verdict. "Of course, in its absence, I couldn't say exactly; but it is certainly a superb work."

The curtains of a wide door almost in front of them were thrown aside suddenly, and Detective Mallory entered. He carried something in his hand, but at the sight of them concealed it behind him. Unrepressed triumph was in his face.

"Ah, professor, we meet often; don't we?" he said.

"This reporter here and his friend seem to be trying to drag de Lesseps into this affair somehow," Kale complained to the detective. "I don't want anything like that to happen. He is liable to go out and print anything. They always do."

The Thinking Machine glared at him unwaveringly, straight in the eye for an instant, then extended his hand toward Mallory. "Where did you find it?" he asked.

"Sorry to disappoint you, professor," said the detective

sarcastically, "but this is the time when you were a little late," and he produced the object which he held behind him. "Here is your picture, Mr. Kale."

Kale gasped a little in relief and astonishment, and held up the canvas with both hands to examine it. "Fine!" he told the detective. "I'll see that you don't lose anything by this. Why, that thing cost me fifty thousand dollars!" Kale didn't seem able to get over that.

The Thinking Machine leaned forward to squint at the upper right hand corner of the canvas. "Where did you find it?" he asked again.

"Rolled up tight, and concealed in the bottom of a trunk in the room of one of the servants," explained Mallory. "The servant's name is Jennings. He is now under arrest."

"Jennings!" exclaimed Kale. "Why, he has been with me for years."

"Did he confess?" asked the scientist imperturbably.

"Of course not," said Mallory. "He says some of the other servants must have hidden it there."

The Thinking Machine nodded at Hatch. "I think perhaps that is all," he remarked. "I congratulate you, Mr. Mallory, upon bringing the matter to such a quick and satisfactory conclusion."

Ten minutes later they left the house and caught a car for the scientist's home. Hatch was a little chagrined at the unexpected termination of the affair, and was thoughtfully silent for a time.

"Mallory does show an occasional gleam of human intelligence; doesn't he?" he said at last quizzically.

"Not that I ever noticed," remarked The Thinking Machine crustily.

"But he found the picture," Hatch insisted.

"Of course he found it. It was put there for him to find."

"Put there for him to find!" repeated the reporter. "Didn't Jennings steal it?"

"If he did, he's a fool."

"Well, if he didn't steal it, who put it there?"

"De Lesseps."

"De Lesseps!" echoed Hatch. "Why the deuce did he steal a fifty thousand-dollar picture and put it in a servant's trunk to be found?"

The Thinking Machine twisted around in his seat and squinted at him coldly for a moment. "At times, Mr. Hatch, I am absolutely amazed at your stupidity," he said frankly. "I can understand it in a man like Mallory, but I have always given you credit for being an astute, quick-witted man."

Hatch smiled at the reproach. It was not the first time he had heard of it. But nothing bearing on the problem in hand was said until they reached The Thinking Machine's apartments.

"The only real question in my mind, Mr. Hatch," said the scientist then, "is whether or not I should take the trouble to restore Mr. Kale's picture at all. He is perfectly satisfied, and will probably never know the difference. So—"

Suddenly Hatch saw something. "Great Scott!" he exclaimed. "Do you mean that the picture that Mallory found was—"

"A copy of the original," supplemented the scientist.

"Personally I know nothing whatever about art; therefore, I could not say from observation that it is a copy, but I know it from the logic of the thing. When the original was cut from the frame, the knife swerved a little at the upper right hand corner. The canvas remaining in the frame told me that. The picture that Mr. Mallory found did not correspond in this detail with the canvas in the frame. The conclusion is obvious."

"And de Lesseps has the original?"

"De Lesseps has the original. How did he get it? In any one of a dozen ways. He might have rolled it up and stuck it under his coat. He might have had a confederate. But I don't think that any ordinary method of theft would have appealed to him. I am giving him credit for being clever, as I must when we review the whole case.

"For instance, he asked for permission to copy the Whistler,

which you saw was the same size as the Rubens. It was granted. He copied it practically under guard, always with the chance that Mr. Kale himself would drop in. It took him three days to copy it, so he says. He was alone in the room all that time. He knew that Mr. Kale had not the faintest idea of art. Taking advantage of that, what would have been simpler than to have copied the Rubens in oil? He could have removed it from the frame immediately after he canvased it over, and kept it in a position near him where it could be quickly concealed if he was interrupted. Remember, the picture is worth fifty thousand dollars; therefore, was worth the trouble.

"De Lesseps is an artist— we know that— and dealing with a man who knew nothing whatever of art, he had no fears. We may suppose his idea all along was to use the copy of the Rubens as a sort of decoy after he got away with the original. You saw that Mallory didn't know the difference, and it was safe for him to suppose that Mr. Kale wouldn't. His only danger until he could get away gracefully was of some critic or connoisseur, perhaps, seeing the copy. His boldness we see readily in the fact that he permitted himself to discover the theft; that he discovered it after he had volunteered to assist Mr. Kale in the general work of rehangng the pictures in the gallery. Just how he put the picture in Jennings' trunk I don't happen to know. We can imagine many ways." He lay back in his chair for a minute without speaking, eyes steadily turned upward, fingers placed precisely tip to tip.

"The only thing remaining is to go get the picture. It is in de Lesseps' room now— you told me that— and so we know it is safe. I dare say he knows that if he tried to run away it would inevitably put him under suspicion."

"But how did he take the picture from the Kale home?" asked Hatch.

"He took it with him probably under his arm the day he left the house with Mr. Kale," was the astonishing reply.

Hatch was staring at him in amazement. After a moment the

scientist arose and passed into the adjoining room, and the telephone bell there jingled. When he joined Hatch again he picked up his hat and they went out together.

De Lesseps was in when their cards went up, and received them. They conversed of the case generally for ten minutes, while the scientist's eyes were turned inquiringly here and there about the room. At last there came a knock on the door.

"It is Detective Mallory, Mr. Hatch," remarked The Thinking Machine. "Open the door for him."

De Lesseps seemed startled for just one instant, then quickly recovered. Mallory's eyes were full of questions when he entered.

"I should like, Mr. Mallory," began The Thinking Machine quietly, "to call your attention to this copy of Mr. Kale's picture by Whistler— over the mantel here. Isn't it excellent? You have seen the original?"

Mallory grunted. De Lesseps' face, instead of expressing appreciation of the compliment, blanched suddenly, and his hands closed tightly. Again he recovered himself and smiled.

"The beauty of this picture lies not only in its faithfulness to the original," the scientist went on, "but also in the fact that it was painted under extraordinary circumstances. For instance, I don't know if you know, Mr. Mallory, that it is possible so to combine glue and putty and a few other commonplace things into a paste which would effectually blot out an oil painting, and offer at the same time an excellent surface for water color work."

There was a moment's pause, during which the three men stared at him silently— with singularly conflicting emotions depicted on their faces.

"This water color— this copy of Whistler," continued the scientist evenly— "is painted on such a paste as I have described. That paste in turn covers the original Rubens picture. It can be removed with water without damage to the picture, which is in oil, so that instead of a copy of the Whistler painting,

we have an original by Rubens, worth fifty thousand dollars. That is true; isn't it, M. de Lesseps?"

There was no reply to the question— none was needed. It was an hour later, after de Lesseps was safely in his cell, that Hatch called up The Thinking Machine on the telephone and asked one question.

"How did you know that the water color was painted over the Rubens?"

"Because it was the only absolutely safe way in which the Rubens could be hopelessly lost to those who were looking for it, and at the same time perfectly preserved," was the answer. "I told you de Lesseps was a clever man, and a little logic did the rest. Two and two always make four, Mr. Hatch, not sometimes, but all the time."

17. The Problem of the Superfluous Finger

Associated Sunday Magazine Nov 25 1906

SHE drew off her left glove, a delicate, crinkled suede affair, and offered her bare hand to the surgeon. An artist would have called it beautiful, perfect, even; the surgeon, professionally enough, set it down as an excellent structural specimen. From the polished pink nails of the tapering fingers to the firm, well moulded wrist, it was distinctly the hand of a woman of ease—one that had never known labour, a pampered hand Dr. Prescott told himself.

"The fore-finger," she explained calmly. "I should like to have it amputated at the first joint, please."

"Amputated?" gasped Dr. Prescott. He stared into the pretty face of his caller. It was flushed softly, and the red lips were parted in a slight smile. It seemed quite an ordinary affair to her. The surgeon bent over the hand with quick interest. "Amputated!" he repeated.

"I came to you," she went on with a nod, "because I have

been informed that you are one of the most skilful men of your profession, and the cost of the operation is quite immaterial."

Dr. Prescott pressed the pink nail of the fore-finger then permitted the blood to rush back into it. Several times he did this, then he turned the hand over and scrutinized it closely inside from the delicately lined palm to the tips of the fingers. When he looked up at last there was an expression of frank bewilderment on his face.

"What's the matter with it?" he asked.

"Nothing," the woman replied pleasantly. "I merely want it off from the first joint."

The surgeon leaned back in his chair with a frown of perplexity on his brow, and his visitor was subjected to a sharp, professional stare. She bore it unflinchingly and even smiled a little at his obvious perturbation.

"Why do you want it off?" he demanded.

The woman shrugged her shoulders a little impatiently.

"I can't tell you that," she replied. "It really is not necessary that you should know. You are a surgeon, I want an operation performed. That is all."

There was a long pause; the mutual stare didn't waver.

"You must understand, Miss— Miss— er—" began Dr. Prescott at last. "By the way, you have not introduced yourself?" She was silent. "May I ask your name?"

"My name is of no consequence," she replied calmly. "I might, of course, give you a name, but it would not be mine, therefore any name would be superfluous."

Again the surgeon stared.

"When do you want the operation performed?" he inquired.

"Now," she replied. "I am ready."

"You must understand," he said severely, "that surgery is a profession for the relief of human suffering, not for mutilation— wilful mutilation I might say."

"I understand that perfectly," she said. "But where a person submits of her own desire to— to mutilation as you call it I can

see no valid objection on your part.”

“It would be criminal to remove a finger where there is no necessity for it,” continued the surgeon bluntly. “No good end could be served.”

A trace of disappointment showed in the young woman’s face, and again she shrugged her shoulders.

“The question after all,” she said finally, “is not one of ethics but is simply whether or not you will perform the operation. Would you do it for, say, a thousand dollars?”

“Not for five thousand dollars,” blurted the surgeon,

“Well, for ten thousand then?” she asked, quiet casually.

All sorts of questions were pounding in Dr. Prescott’s mind. Why did a young and beautiful woman desire— why was she anxious even— to sacrifice a perfectly healthy finger? What possible purpose would it serve to mar a hand which was as nearly perfect as any he had ever seen? Was it some insane caprice? Staring deeply into her steady, quiet eyes he could only be convinced of her sanity. Then what?

“No, madam,” he said at last, vehemently, “I would not perform the operation for any sum you might mention, unless I was first convinced that the removal of that finger was absolutely necessary. That, I think, is all.”

He arose as if to end the consultation. The woman remained seated and continued thoughtful for a minute.

“As I understand it,” she said, “you *would* perform the operation if I could convince you that it was absolutely necessary?”

“Certainly,” he replied promptly, almost eagerly. His curiosity was aroused. “Then it would come well within the range of my professional duties.”

“Won’t you take my word that it is necessary, and that it is impossible for me to explain why?”

“No. I must know why.”

The woman arose and stood facing him. The disappointment had gone from her face now.

"Very well," she remarked steadily. "You *will* perform the operation if it is necessary, therefore if I should shoot the finger off, perhaps—?"

"Shoot it off?" exclaimed Dr. Prescott in amazement. "Shoot it off?"

"That is what I said," she replied calmly. "If I should shoot the finger off you would consent to dress the wound? You would make any necessary amputation?"

She held up the finger under discussion and looked at it curiously. Dr. Prescott himself stared at it with a sudden new interest.

"Shoot it off?" he repeated. "Why you must be mad to contemplate such a thing," he exploded, and his face flushed in sheer anger. "I— I will have nothing whatever to do with the affair, madam. Good day."

"I should have to be very careful of course," she mused, "but I think perhaps one shot would be sufficient, then I should come to you and demand that you dress it?"

There was a question in the tone. Dr. Prescott stared at her for a full minute then walked over and opened the door.

"In my profession, madam," he said coldly, "there is too much possibility of doing good and relieving actual suffering for me to consider this matter or discuss it further with you. There are three persons now waiting in the ante-room who *need* my services. I shall be compelled to ask you to excuse me."

"But you will dress the wound?" the woman insisted, undaunted by his forbidding tone and manner.

"I shall have nothing whatever to do with it," declared the surgeon, positively, finally. "If you need the services of any medical man permit me to suggest that it is an alienist and not a surgeon."

The woman didn't appear to take offence.

"Someone would have to dress it," she continued insistently. "I should much prefer that it be a man of undisputed skill— you I mean, therefore I shall call again. Good day."

There was a rustle of silken skirts and she was gone. Dr. Prescott stood for an instant gazing after her with frank wonder and annoyance in his eyes, his attitude, then he went back and sat down at the desk. The crinkled suede glove still lay where she had left it. He examined it gingerly then with a final shake of his head dismissed the affair and turned to other things.

Early next afternoon Dr. Prescott was sitting in his office writing when the door from the ante-room where patients awaited his leisure was thrown open and the young man in attendance rushed in.

"A lady has fainted, sir," he said hurriedly. "She seems to be hurt."

Dr. Prescott arose quickly and strode out. There, lying helplessly back in her chair with white face and closed eyes, was his visitor of the day before. He stepped toward her quickly then hesitated as he recalled their conversation. Finally, however, professional instinct, the desire to relieve suffering, and perhaps curiosity too, caused him to go to her. The left hand was wrapped in an improvised bandage through which there was a trickle of blood. He glared at it with incredulous eyes.

"Hanged if she didn't do it," he blurted angrily.

The fainting spell, Dr. Prescott saw, was due only to loss of blood and physical pain, and he busied himself trying to restore her to consciousness. Meanwhile he gave some hurried instructions to the young man who was in attendance in the ante-room.

"Call up Professor Van Dusen on the 'phone," he directed his assistant, "and ask him if he can assist me in a minor operation. Tell him it's rather a curious case and I am sure it will interest him."

It was in this manner that the problem of the superfluous finger first came to the attention of The Thinking Machine. He arrived just as the mysterious woman was opening her eyes to consciousness from the fainting spell. She stared at him glassily, unrecognizingly; then her glance wandered to Dr. Prescott. She

smiled.

"I knew you'd have to do it," she murmured weakly.

After the ether had been administered for the operation, a simple and an easy one, Dr. Prescott stated the circumstances of the case to The Thinking Machine. The scientist stood with his long, slender fingers resting lightly on the young woman's pulse, listening in silence.

"What do you make of it?" demanded the surgeon.

The Thinking Machine didn't say. At the moment he was leaning over the unconscious woman squinting at her forehead. With his disengaged hand he stroked the delicately pencilled eye-brows several times the wrong way, and again at close range squinted at them. Dr. Prescott saw and seeing, understood.

"No, it isn't that," he said and he shuddered a little. "I thought of it myself. Her bodily condition is excellent, splendid."

It was some time later when the young woman was sleeping lightly, placidly under the influence of a soothing potion, that The Thinking Machine spoke of the peculiar events which had preceded the operation. Then he was sitting in Dr. Prescott's private office. He had picked up a woman's glove from the desk.

"This is the glove she left when she first called, isn't it?" he inquired.

"Yes."

"Did you happen to see her remove it?"

"Yes."

The Thinking Machine curiously examined the dainty, perfumed trifle, then, arising suddenly, went into the adjoining room where the woman lay asleep. He stood for an instant gazing down admiringly at the exquisite, slender figure; then, bending over, he looked closely at her left hand. When at last he straightened up it seemed that some unspoken question in his mind had been answered. He rejoined Dr. Prescott.

"It's difficult to say what motive is back of her desire to have the finger amputated," he said musingly. "I could perhaps

venture a conjecture but if the matter is of no importance to you beyond mere curiosity I should not like to do so. Within a few months from now, I daresay, important developments will result and I should like to find out something more about her. That I can do when she returns to wherever she is stopping in the city. I'll 'phone to Mr. Hatch and have him ascertain for me where she goes, her name and other things which may throw a light on the matter."

"He will follow her?"

"Yes, precisely. Now we only seem to know two facts in connection with her. First, she is English."

"Yes," Dr. Prescott agreed. "Her accent, her appearance, everything about her suggests that."

"And the second fact is of no consequence at the moment," resumed The Thinking Machine. "Let me use your 'phone please."

Hutchinson Hatch, reporter, was talking.

"When the young woman left Dr. Prescott's she took the cab which had been ordered for her and told the driver to go ahead until she stopped him. I got a good look at her, by the way. I managed to pass just as she entered the cab and walking on down got into another cab which was waiting for me. Her cab drove for three or four blocks aimlessly, and finally stopped. The driver stooped down as if to listen to someone inside, and my cab passed. Then the other cab turned across a side street and after going eight or ten blocks pulled up in front of an apartment house. The young woman got out and went inside. Her cab went away. Inside I found out that she was Mrs. Frederick Chevedon Morey. She came there last Tuesday— this is Friday— with her husband, and they engaged—"

"Yes, I knew she had a husband," interrupted The Thinking Machine.

"—engaged apartments for three months. When I had learned this much I remembered your instructions as to steamers from Europe landing on the day they took apartments

or possibly a day or so before. I was just going out when Mrs. Morey stepped out of the elevator and preceded me to the door. She had changed her clothing and wore a different hat.

"It didn't seem to be necessary then to find out where she was going for I knew I could find her when I wanted to, so I went down and made inquiries at the steamship offices. I found, after a great deal of work, that no one of the three steamers which arrived the day they took apartments brought a Mr. and Mrs. Morey, but one steamer on the day before brought a Mr. and Mrs. David Girardeau from Liverpool. Mrs. Girardeau answered Mrs. Morey's description to the minutest detail even to the gown she wore when she left the steamer— that is the same she wore when she left Dr. Prescott's after the operation."

That was all. The Thinking Machine sat with his enormous yellow head pillowed against a high-backed chair and his long slender fingers pressed tip to tip. He asked no questions and made no comment for a long time, then:

"About how many minutes was it from the time she entered the house until she came out again?"

"Not more than ten or fifteen," was the reply. "I was still talking casually to the people down stairs trying to find out something about them."

"What do they pay for their apartment?" asked the scientist, irrelevantly.

"Three hundred dollars a month."

The Thinking Machine's squint eyes were fixed immovably on a small discoloured spot on the ceiling of his laboratory.

"Whatever else may develop in this matter, Mr. Hatch," he said after a time, "we must admit that we have met a woman with extraordinary courage— nerve, I daresay you'd call it. When Mrs. Morey left Dr. Prescott's operating room she was so ill and weak from the shock that she could hardly stand, and now you tell me she changed her dress and went out immediately after she returned home."

"Well, of course—" Hatch said, apologetically.

"In that event," resumed the scientist, "we must assume also that the matter is one of the utmost importance to her, and yet the nature of the case had led me to believe that it might be months, perhaps, before there would be any particular development in it."

"What? How?" asked the reporter.

"The final development doesn't seem, from what I know, to belong on this side of the ocean at all," explained The Thinking Machine. "I imagine it is a case for Scotland Yard. The problem of course is: What made it necessary for her to get rid of that finger? If we admit her sanity we can count the possible answers to this question on one hand, and at least three of these answers take the case back to England." He paused. "By the way, was Mrs. Morey's hand bound up in the same way when you saw her the second time?"

"Her left hand was in a muff," explained the reporter. "I couldn't see but it seems to me that she wouldn't have had time to change the manner of its dressing."

"It's extraordinary," commented the scientist. He arose and paced back and forth across the room. "Extraordinary," he repeated. "One can't help but admire the fortitude of women under certain circumstances, Mr. Hatch. I think perhaps this particular case had better be called to the attention of Scotland Yard, but first I think it would be best for you to call on the Moreys tomorrow— you can find some pretext— and see what you can learn about them. You are an ingenious young man— I'll leave it all to you."

Hatch did call at the Morey apartments on the morrow but under circumstances which were not at all what he expected. He went there with Detective Mallory, and Detective Mallory went there in a cab at full speed because the manager of the apartment house had 'phoned that Mrs. Frederick Chevedon Morey had been found murdered in her apartments. The detective ran up two flights of stairs and blundered, heavy-footed into the rooms, and there he paused in the presence of

death.

The body of the woman lay on the floor and some one had mercifully covered it with a cloth from the bed. Detective Mallory drew the covering down from over the face and Hatch stared with a feeling of awe at the beautiful countenance which had, on the day before, been so radiant with life. Now it was distorted into an expression of awful agony and the limbs were drawn up convulsively. The mark of the murderer was at the white, exquisitely rounded throat— great black bruises where powerful, merciless fingers had sunk deeply into the soft flesh.

A physician in the house had preceded the police. After one glance at the woman and a swift, comprehensive look about the room Detective Mallory turned to him inquiringly.

"She has been dead for several hours," the doctor volunteered, "possibly since early last night. It appears that some virulent, burning poison was administered and then she was choked. I gather this from an examination of her mouth."

These things were readily to be seen; also it was plainly evident for many reasons that the finger marks at the throat were those of a man, but each step beyond these obvious facts only served to further bewilder the investigators. First was the statement of the night elevator boy.

"Mr. and Mrs. Morey left here last night about eleven o'clock," he said. "I know because I telephoned for a cab, and later brought them down from the third floor. They went into the manager's office leaving two suit cases in the hall. When they came out I took the suit cases to a cab that was waiting. They got in it and drove away."

"When did they return?" inquired the detective.

"They didn't return, sir," responded the boy. "I was on duty until six o'clock this morning. It just happened that no one came in after they went out until I was off duty at six."

The detective turned to the physician again.

"Then she couldn't have been dead since early last night," he said.

"She has been dead for several hours— at least twelve, possibly longer," said the physician firmly. "There's no possible argument about that."

The detective stared at him scornfully for an instant, then looked at the manager of the house.

"What was said when Mr. and Mrs. Morey entered your office last night?" he asked. "Were you there?"

"I was there, yes," was the reply. "Mr. Morey explained that they had been called away for a few days unexpectedly, and left the keys of the apartment with me. That was all that was said; I saw the elevator boy take the suit cases out for them as they went to the cab."

"How did it come, then, if you knew they were away that some one entered here this morning, and so found the body?"

"I discovered the body myself," replied the manager. "There was some electric wiring to be done in here and I thought their absence would be a good time for it. I came up to see about it and saw— that."

He glanced at the covered body with a little shiver and a grimace. Detective Mallory was deeply thoughtful for several minutes.

"The woman is here and she's dead," he said finally. "If she is here she came back here, dead or alive last night between the time she went out with her husband and the time her body was found this morning. Now that's an absolute fact. But *how* did she come here?"

Of the three employees of the apartment house only the elevator boy on duty had not spoken. Now he spoke because the detective glared at him fiercely.

"I didn't see either Mr. or Mrs. Morey come in this morning," he explained hastily. "Nobody had come in at all except the postman and some delivery wagon drivers up to the time the body was found."

Again Detective Mallory turned on the manager.

"Does any window of this apartment open on a fire escape?"

he demanded.

"Yes— this way."

They passed through the short hallway to the back. Both the windows were locked on the inside, so instantly it appeared that even if the woman had been brought into the room that way the windows would not have been fastened unless her murderer went out of the house the front way. When Detective Mallory reached this stage of the investigation he sat down and stared from one to the other of the silent little party as if he considered the entire matter some affair which they had perpetrated to annoy him.

Hutchinson Hatch started to say something, then thought better of it, and turning, went to the telephone below. Within a few minutes The Thinking Machine stepped out of a cab in front and paused in the lower hall long enough to listen to the facts developed. There was a perfect net-work of wrinkles in the dome-like brow when the reporter concluded.

"It's merely a transfer of the final development in the affair from England to this country," he said enigmatically. "Please 'phone for Dr. Prescott to come here immediately."

He went on to the Morey apartments. With only a curt nod for Detective Mallory, the only one of the small party who knew him, he proceeded to the body of the dead woman and squinted down without a trace of emotion into the white, pallid face. After a moment he dropped on his knees beside the inert body and examined the mouth and the finger marks about the white throat.

"Carbolic acid and strangulation," he remarked tersely to Detective Mallory who was leaning over watching him with something of hopeful eagerness in his stolid face. The Thinking Machine glanced past him to the manager of the house. "Mr. Morey is a powerful, athletic man in appearance?" he asked.

"Oh no," was the reply. "He's short and slight, only a little larger than you are."

The scientist squinted aggressively at the manager as if the

description were not quite what he expected. Then the slightly puzzled expression passed.

“Oh, I see,” he remarked. “Played the piano.” This was not a question; it was a statement.

"Yes, a great deal," was the reply, "so much so in fact that twice we had complaints from other persons in the house despite the fact that they had been here only a few days."

"Of course," mused the scientist abstractedly. "Of course. Perhaps Mrs. Morey did not play at all?"

"I believe she told me she did not."

The Thinking Machine drew down the thin cloth which had been thrown over the body and glanced at the left hand.

"Dear me! Dear me!" he exclaimed suddenly, and he arose. "Dear me!" he repeated. "That's the — —" He turned to the manager and the two elevator boys. "This is Mrs. Morey beyond any question?"

The answer was a chorus of affirmation accompanied by some startling facial expressions.

"Did Mr. and Mrs. Morey employ any servants?"

"No," was the reply. "They had their meals in the café below most of the time. There is no housekeeping in these apartments at all."

"How many persons live in the building?"

"A hundred I should say."

"There is a great deal of passing to and fro, then?"

"Certainly. It was rather unusual that so few persons passed in and out last night and this morning, and certainly Mrs. Morey and her husband were not among them if that's what you're trying to find out."

The Thinking Machine glanced at the physician who was standing by silently.

"How long do you make it that she's been dead?" he asked.

"At least twelve hours," replied the physician. "Possibly longer."

"Yes, nearer fourteen, I imagine."

Abruptly he left the group and walked through the apartment and back again slowly. As he re-entered the room where the body lay, the door from the hall opened and Dr. Prescott entered, followed by Hutchinson Hatch. The Thinking

Machine led the surgeon straight to the body and drew the cloth down from the face. Dr. Prescott started back with an exclamation of astonishment, recognition.

"There's no doubt about it at all in your mind?" inquired the scientist.

"Not the slightest," replied Dr. Prescott positively. "It's the same woman."

"Yet, look here!"

With a quick movement The Thinking Machine drew down the cloth still more. Dr. Prescott, together with those who had no idea of what to expect, peered down at the body. After one glance the surgeon dropped on his knees and examined closely the dead left hand. The fore-finger was off at the first joint. Dr. Prescott stared, stared incredulously. After a moment his eyes left the maimed hand and settled again on her face.

"I have never seen— never dreamed— of such a startling—" he began.

"That settles it all, of course," interrupted The Thinking Machine. "It solves and proves the problem at once. Now, Mr. Mallory, if we can go to your office or some place where we will be undisturbed I will—"

"But who killed her?" demanded the detective abruptly.

"I have the photograph of her murderer in my pocket," returned The Thinking Machine. "Also a photograph of an accomplice."

Detective Mallory, Dr. Prescott, The Thinking Machine, Hutchinson Hatch, and the apartment house physician were seated in the front room of the Morey apartments with all doors closed against prying, inquisitive eyes. At the scientist's request Dr. Prescott repeated the circumstances leading up to the removal of a woman's left fore-finger, and there The Thinking Machine took up the story.

"Suppose, Mr. Mallory," and the scientist turned to the detective, "a woman should walk into *your* office and say she must have a finger cut off, what would you think?"

"I'd think she was crazy," was the prompt reply.

"Naturally, in your position," The Thinking Machine went on, "you are acquainted with many strange happenings. Wouldn't this one instantly suggest something to you. Something that was to happen months off."

Detective Mallory considered it wisely, but was silent.

"Well here," declared The Thinking Machine. "A woman whom we now know to be Mrs. Morey wanted her finger cut off. It instantly suggested three, four, five, a dozen possibilities. Of course only one, or possibly two in combination, could be true. Therefore which one? A little logic now to prove that two and two always make four— not *some* times but *all* the time.

"Naturally the first supposition was insanity. We pass that as absurd on its face. Then disease— a taint of leprosy perhaps which had been visible on the left fore-finger. I tested for that, and that was eliminated. Three strong reasons for desiring the finger off, either of which is strongly probable, remained. The fact that the woman was English unmistakably was obvious. From the mark of a wedding ring on her glove and a corresponding mark on her finger— she wore no such ring— we could safely surmise that she was married. These were the two first facts I learned. Substantiative evidence that she was married and not a widow came partly from her extreme youth and the lack of mourning in her attire.

"Then Mr. Hatch followed her, learned her name, where she lived, and later the fact that she had arrived with her husband on a steamer a day or so before they took apartments here. This was proof that she was English, and proof that she had a husband. They came over on the steamer as Mr. and Mrs. David Girardeau— here they were Mr. and Mrs. Frederick Chevedon Morey. Why this difference in name? The circumstance in itself pointed to irregularity— crime committed or contemplated. Other things made me think it was merely contemplated and that it could be prevented; for then the absence of every fact gave me no intimation that there would be murder. Then came

the murder presumably of— Mrs. Morey?”

“Isn’t it Mrs. Morey?” demanded the detective.

“Mr. Hatch recognized the woman as the one he had followed, I recognized her as the one on whom there had been an operation, Dr. Prescott also recognized her,” continued the Thinking Machine. “To convince myself, after I had found the manner of death, that it was the woman, I looked at her left hand. I found that the fore-finger was gone— it had been removed by a skilled surgeon at the first joint. And this fact instantly showed me that the dead woman was not Mrs. Morey at all, but somebody else; and incidentally cleared up the entire affair.”

“How?” demanded the detective. “I thought you just said that you had helped cut off her fore-finger.”

“Dr. Prescott and I cut off that finger yesterday,” replied The Thinking Machine calmly. “The finger of the dead woman had been cut off months, perhaps years, ago.”

There was blank amazement on Detective Mallory’s face, and Hatch was staring straight into the squint eyes of the scientist. Vaguely, as through a mist, he was beginning to account for many things which had been hitherto inexplicable.

“The perfectly healed wound on the hand eliminated every possibility but one,” The Thinking Machine resumed. “Previously I had been informed that Mrs. Morey did not— or said she did not— play the piano. I had seen the bare possibility of an immense insurance on her hands, and some trick to defraud an insurance company by marring one. Of course against this was the fact that she had offered to pay a large sum for the operation; that their expenses here must have been enormous, so I was beginning to doubt the tenability of this supposition. The fact that the dead woman’s finger was off removed that possibility completely, as it also removed the possibility of a crime of some sort in which there might have been left behind a tell-tale print of that forefinger. If there had been a serious crime with the trace of the finger as evidence, its removal would

have been necessary to her.

"Then the one thing remained— that is that Mrs. Morey or whatever her name is— was in a conspiracy with her husband to get possession of certain properties, perhaps a title— remember she is English— by sacrificing that finger so that identification might be in accordance with the description of an heir whom she was to impersonate. We may well believe that she was provided with the necessary documentary evidence, and we know conclusively— we don't conjecture but we *know*— that the dead woman in there is the woman whose rights were to have been stolen by the so-called Mrs. Morey."

"But that is Mrs. Morey, isn't it?" demanded the detective again.

"No," was the sharp retort. "The perfect resemblance to Mrs. Morey and the finger removed long ago makes that clear. There is, I imagine, a relationship between them— perhaps they are cousins. I can hardly believe they are twins because the necessity, then of one impersonating the other to obtain either money or a title, would not have existed so palpably although it is possible that Mrs. Morey, if disinherited or disowned, would have resorted to such a course. This dead woman is Miss— Miss —" and he glanced at the back of a photograph, "Miss Evelyn Rossmore, and she has evidently been living in this city for some time. This is her picture, and it was made at least a year ago by Harkinson here. Perhaps he can give you her address as well."

There was silence for several minutes. Each member of the little group was turning over the stated facts mentally, and Detective Mallory was staring at the photograph, studying the handwriting on the back.

"But how did she come here— like this?" Hatch inquired.

"You remember, Mr. Hatch, when you followed Mrs. Morey here you told me she dressed again and went out?" asked the scientist in turn. "It was not Mrs. Morey you saw then— she was ill and I knew it from the operation— it was Miss Rossmore. The manager says a hundred persons live in this house— that there

is a great deal of passing in and out. Can't you see that when there is such a startling resemblance Miss Rossmore could pass in and out at will and always be mistaken for Mrs. Morey? That no one would ever notice the difference?"

"But who killed her?" asked Detective Mallory, curiously. "How? Why?"

"Morey killed her," said The Thinking Machine flatly and he produced two other photographs from his pocket. "There's his picture and his wife's picture for identification purposes. How did he kill her? We can fairly presume that first he tricked her into drinking the acid, then perhaps she was screaming with the pain of it, and he choked her to death. I imagined first he was a large, powerful man because his grip on her throat was so powerful that he ruptured the jugular inside; but instead of that he plays the piano a great deal, which would give him the hand-power to choke her. And why? We can suppose only that it was because she had in some way learned of their purpose. That would have established the motive. The crowning delicacy of the affair was Morey's act in leaving his keys with the manager here. He did not anticipate that the apartments would be entered for several days— after they were safely away— while there was a chance that if neither of them had been seen here and their disappearance was unexplained the rooms would have been opened to ascertain why. That is all, I think."

"Except to catch Morey and his wife," said the detective grimly.

"Easily done with those photographs," said The Thinking Machine. "I imagine, if this murder is kept out of the newspapers for a couple of hours you can find them about to sail for Europe. Suppose you try the line they came over on?"

It was just three hours later that the accused man and wife were taken prisoner. They had just engaged passage on the steamer which sailed at half-past four o'clock. Their trial was a famous one and resulted in conviction after an astonishing story of an attempt to seize an estate and title belonging rightfully to

Miss Evelyn Rossmore who had mysteriously disappeared years before.

18. The Three Overcoats

UNDER the influence of that singular feeling of some one being in the room with him, Carroll Garland opened his eyes suddenly from sound sleep. The intuition was correct; there was some one in the room with him— a man whose back was turned. At that particular moment he was examining the clothing Garland had discarded on retiring. Garland raised himself on one elbow, and the bed creaked a little.

“Don’t disturb yourself,” said the man, without turning, “I’ll be through in a minute.”

“Through what?” demanded Garland. “My pockets?”

The stranger straightened up and turned toward him. He was a tall, lithe, clean-cut young man, with crisp, curly hair, and a quizzical expression about his eyes and lips. He was in evening dress, and Garland could only admire the manner in which it fitted him. He wore an opera hat, and a light weight Inverness coat.

“I didn’t mean to wake you, really,” the stranger apologized pleasantly. “I’m sure I didn’t make any noise.”

“No, I dare say you didn’t,” replied Garland. “What do you want?”

The stranger picked up an overcoat, which lay across a chair, and deftly, with a penknife, slit the lining on each side. He did something then which Garland couldn’t see, after which he carefully folded the coat again, and laid it across the chair. “I have taken what you won at bridge at your club this evening,” he remarked. “It will save me the trouble of cashing a check.”

Garland gazed at this imperturbable, audacious person with a sort of admiration. “I trust you found the amount correct?” he said sarcastically.

"Yes, thirteen hundred and forty-seven dollars. That will do very nicely, thank you. I am leaving two hundred and some odd dollars of your own."

"Oh, take it all," said Garland magnanimously, "because I am going to make you return it, anyway."

The stranger laughed pleasantly. "I am going now," he said; "but before I go I should like to tell you that you play really an excellent game of bridge, except, perhaps, you are a little reckless on no trumps."

"Thank you," said Garland, and started to get out of bed.

"Now, don't get up!" advised the stranger, still pleasantly. "I have something here in my pocket which I should dislike very much to have to use. But I will use it if necessary."

Garland kept right on getting out of bed. "You are not such a fool as to shoot," he said quietly. "You couldn't get out of this hotel to save your life if you did. It is only half-past eleven o'clock, there are people passing in the halls, and always at this time there are a great many people in the lobby. You would have to go that way. So now I'll trouble you for the money."

The stranger drew a glistening, shining object from his pocket, examined it casually, then went over and stood beside the call button. There was a glitter of determination in his eyes, and the smile had gone from his lips. "I certainly have no intention of returning the money— now," he said. "It would be best for both of us, of course, not to attract anyone's attention."

Garland was coming straight toward him.

"Now, don't do anything foolish," the stranger warned, not unkindly. "You can't reach the call button unless you go over me; you won't shout, because if you do I shall have to use this revolver, and take my chances below. You don't happen to need this money, and I do. It was simply a pick-up for you at the club. If you give an alarm when I go out, it will be disagreeable for me."

Garland stared at him in frank amazement for a moment. The stranger steadily returned the gaze.

"I'll just take one whirl out of you anyhow," declared Garland grimly. "I don't happen to have a gun; but—"

And Garland sent in a vicious right swing, which would have been highly effective had the stranger's head remained stationary. Instead, it ducked suddenly, and a left hand landed jarringly on one of Garland's eyes. Instantly he forgot all about the burglarious intentions of his visitor; it was man to man, and Garland happened to be dexterous in the science of pugilism—Mike Donovan had taught him.

After four blows had been exchanged, Garland became suddenly convinced that the stranger's teacher in the gentle art of bruising was more gifted even than Mike, because, in all the freedom of his pajamas, Garland got in only one blow for two, on a man who was hampered by overcoat and evening dress. A stinging jab to Garland's mouth made him clinch, and in trying to reach the stranger's throat, he forgot all the ethics of the game.

At this close range, the stranger delivered one short arm punch, and as Garland reeled and the world grew dark about him, he recalled the blow as being identical with one which was made famous in Carson City, at the time a world's championship changed hands. Dazzling lights danced before his eyes for a moment, and then all was dark.

The stranger stood looking down at him, planted his opera hat more firmly on his head, drew on his gloves, opened the door, and went out. He sauntered through the lobby carelessly, paused to light a cigar, and disappeared through the revolving doors. At the curb outside, an automobile was waiting. In it sat a veiled woman, and a very much begoggled chauffeur.

"Well?" the woman asked quickly.

The stranger shook his head, climbed in beside her, and the car rushed away.

When Garland recovered consciousness, he had the impression of having experienced a remarkably vivid nightmare. But one look into the mirror at the bulbous black eye, and the absence of thirteen hundred and forty-seven dollars from his

pockets, convinced him of the reality of it all. Incidentally he examined the two knife cuts in the overcoat lining, and shook his head in bewilderment.

“What the deuce did he cut those for?” he asked himself.

On the following morning Garland returned the overcoat to its owner, Hal Dickson. There is a freemasonry among roommates at college by which one acknowledges that whatever he owns belongs equally to the other. Garland had exercised certain rights which had accrued to him by reason of this comradeship upon his arrival in the city the day before. He wore then a light weight tan coat, entirely too thin for the extreme cold which set in immediately upon his arrival; so he borrowed a heavier coat, a thick frieze affair, from his old chum, and left his own light coat with him.

“I want to tell you something about this, Hal,” he said, and recited in detail the events of the night before. “Now look here where my friend cut your coat,” he said in conclusion.

Together they examined the long slits, after which they stared at each other in blank wonderment.

“Send it down to your tailor and have it relined,” remarked Garland. “Tell him to send the bill to me.”

Dickson continued to stare at the coat lining. “What did he want to cut it for?” he asked.

Garland shook his head. “Give me my own coat,” he said; “I’ve got to go back home at two-thirty, and can manage with this light coat until I get there, and may not have a chance to come here again.”

Garland was just about to put on his own coat, when he stopped in fresh amazement. “Well! Look at that!” he exclaimed.

Dickson looked. The lining of the coat was slit wide open on each side, as if with a sharp knife.

Ten minutes later the young men were on their way to police headquarters. Detective Mallory received them. The coats were laid under his official eyes, and he scrutinized them carefully.

Mallory listened, with his feet on his desk, and his cigar

clinched in his teeth. "What did the thief look like?" he asked at the end.

"He had every appearance of a gentleman."

"Just like me and you, eh?"

"Well, a little more like me," replied Garland innocently.

"I shall put my men on it at once," said the detective.

Garland caught the two-thirty train for a run of an hour and a half to a small city.

At fifteen minutes before five o'clock Detective Mallory was called to the long distance telephone.

"That Mr. Mallory?" came an excited voice. "Well, this is Carroll Garland. Yes, I am at home. Just as soon as I got here I went straight to my room to get a heavier overcoat. I was putting it on, when I found that the lining had been ripped open just like those other two. Now, what does that mean?"

For the first time in his life a question had been asked to which Mallory would confess that he didn't know the answer. He scratched his head thoughtfully, then stopped doing that to tug violently at his bristly moustache. Finally he hung up the receiver with a bang, and went out personally to look into an affair which had not attracted more than passing interest at the time it was reported.

"I can readily understand," Hutchinson Hatch was saying, "why the burglar took the money; but why did he slit the lining of the overcoat?"

The Thinking Machine didn't say.

"Then why did he go to Dickson's room, and slit the lining of an overcoat which Garland left there?"

Still The Thinking Machine was silent.

"And finally why did he go to Garland's home, in another city forty miles away, and slit the lining of an overcoat there?"

Professor Augustus S. F. X. Van Dusen receded still farther into the depths of a huge chair, and sat for a long time with his squint eyes turned upward, and finger tips pressed together. At last he broke the silence. "You have given me every known

fact?"

"Everything," the reporter answered.

"There is really no problem in it at all," The Thinking Machine declared, "unless one of the units remains undiscovered. If all are known, the solution is obvious. When the money is returned to Garland, it will definitely prove the only possible hypothesis that may be advanced."

"When the money is returned?" gasped the reporter.

"That is what I said!" snapped the scientist crustily. "If Garland does not care to lose that thirteen hundred and forty-seven dollars, it would not be wise to press the investigation just now. If you will keep in communication with him, and inform me immediately when he receives the money, I shall undertake to close up the affair. Until then it is really not worth attention."

Nearly a week elapsed before there was another development in the mystery— the return of thirteen hundred and forty-seven dollars, by express from Denver. Accompanying the money was an unsigned note of thanks for the use of it, and a line or two which might have been construed into an apology for the stranger's conduct in Garland's room.

The police were astounded; this was against all the rules of the game. Garland was a little more than astounded, and at the same time delighted at the generosity of the thief. It was not possible to develop any fact as to the identity of the intruder from the express records. Obviously the sender had used a fictitious name in Denver. When Hatch explained this point to The Thinking Machine, it was dismissed with a wave of one slender hand.

"It is really of no consequence," declared the scientist. "Garland knows the name of the man who took the money and cut the overcoat."

"But he says he doesn't," Hatch remonstrated.

"There may be circumstances which make it necessary for him to say that," continued the scientist.

"He is prepared to swear that he never saw the man before."

"That might be quite true," was the curt rejoinder; "but I dare say he does know his name. The next time Garland comes to the city, let me know."

"He is here now," the reporter informed him. "He came in to-day to consult with Detective Mallory about the return of the money."

"That simplifies matters," said the scientist. "We'll see him at once."

Garland was in. Hatch introduced the distinguished man of science, and he came immediately to business.

"Tell me something of your love affairs, Mr. Garland," The Thinking Machine began abruptly.

"My love affairs? I have no love affairs at all."

"Oh, I see; married."

Garland gazed straight into the squinting eyes, with a quizzical expression about his mouth. "I don't see that it is absolutely inconsistent for a man to have a love affair and be married," he said smilingly. "There are men, you know, who are in love with their own wives. I happen to be one of these. When you said love affairs, I presumed you meant—"

"There are men," interrupted The Thinking Machine, "who because of being married dare not admit any other entanglements." The aggressive blue eyes were staring straight into Garland's.

After a moment the young man arose, with something like anger in his manner. "I don't happen to be one of them," he said sharply.

The Thinking Machine shrugged his shoulders. "Now, what is the name of the man who robbed you and cut those coats?" he asked.

"I don't know," retorted Garland.

"I know that is what you told the police," said the scientist; "but believe me, it would be best, and possibly save you trouble, for you to give me the name of that man."

"I don't know it," repeated Garland.

The Thinking Machine seemed satisfied on that point, but with his satisfaction came tiny, sinuous lines in his forehead. Hatch knew what that meant.

"You never saw the man before?" asked the scientist after a moment. The aggressiveness had gone from his voice now.

"No, I never saw him before," Garland replied.

"Nor a photograph of him?"

"No, never."

Almost imperceptibly the lines deepened in the brow of The Thinking Machine. His eyes were narrowed down to mere slits, and his thin lips set into a perfectly straight line. Garland studied the grotesque little figure with a curiosity backed by anger. For a long time there was silence, then:

"Mr. Garland, how long have you been married?"

"Four years."

The Thinking Machine shook his head and arose. "Please pardon me," he continued, "but what is your financial condition?"

"I am a salaried man; but it is a good salary, twelve thousand a year, quite enough for my wife and self."

"Your married life has been happy?"

"Perfectly."

Again The Thinking Machine shook his head.

Ten minutes later he and Hutchinson Hatch were in the street together.

"He has either lied, or else we have overlooked a unit," volunteered the scientist as they walked on. "Now I can't believe that we missed anything— ergo, he lied, and yet I can't believe that."

"Well, that doesn't leave much," the reporter suggested.

"The next step," the scientist went on, "will be to establish beyond all doubt that he told the truth. I leave that to you. Get his record for the last five years, and inquire particularly about his family life, his club life, and always bear in mind the possibility of another woman in the case. There is a woman—

some woman— because she was in the automobile. Of course, the case is inconsequential, since the money has been returned; but I happen to be interested in it, because the return of the money bears out my hypothesis, and other things tend to upset it.”

Hatch covered the affair thoroughly. Garland had told the truth, as far as investigation could develop. He so informed the scientist.

“It is singular, very singular,” remarked The Thinking Machine, in deep abstraction. “By the inexorable rule of logic we reach a point where we must believe that Garland slit the lining of the coats himself, and had the money sent to him from Denver. When we attempt to find a motive for that, we plunge into absurdities. Two and two always make four, Mr. Hatch, not sometimes, but all the time. No problem in arithmetic can be correctly solved, if one figure is missing. There is one figure missing. I’ll find it. In your investigation of Garland’s career you found out something about his father?”

“Yes. He died several years ago. His name, by the way, was also Carroll Garland.”

The Thinking Machine turned suddenly and squinted at the reporter. “Here is our missing unit, Mr. Hatch,” he said. “Do you happen to know if there were ever any other Carroll Garlands in the family?”

“Years ago, yes. The great-grandfather of the present one was also a Carroll Garland.”

The little scientist arose suddenly, paced back and forth half a dozen times, then passed into an adjoining room. Five minutes later he re-entered, with his hat and coat. Accompanied by the reporter, he went straight to one of the fashionable clubs, and sent in a card. After a few minutes’ wait a young man appeared.

“My name is Van Dusen,” began The Thinking Machine. “I came here to see you about a personal matter. Could we go to some place where we should not be disturbed for a minute?”

The young man led the way into a private parlor and closed

the door.

"It's about that compromising letter which you carry there," and The Thinking Machine touched the young man on the breast with one long slender finger.

"Did she send you?"

"No."

"Well, what business is it of yours, then?"

"I do not think that a man of honor— a man of your social position— would care to carry about with him a paper which would not only imperil but might wreck the reputation of a woman who is now another man's wife."

That The Thinking Machine had spoken correctly, Hatch could not doubt from the expression on the other's face.

"Another man's wife," repeated the young man in astonishment. "Since when?"

"A week or so ago. She is now in the West with her husband. He knows of the existence of this document, therefore whatever vengeful spirit you may have had in preserving it is wasted. I would advise you to destroy it."

For a minute or more the young man stared straight into the squint eyes. "If the lady in question should have made such a request of me in person, I should have destroyed it," said the young man; "otherwise I—"

"She makes that request now, through me," the scientist lied glibly.

"Did she ask you to come to me?"

"She makes that request now, through me," repeated the scientist.

Again the young man was silent. Finally he slowly removed his overcoat and laid it across the table. Then from a pocket in the lining, the opening of which was concealed in a seam where the sleeve joined the coat, he removed a letter. A strange expression played about his face, reminiscent, thoughtful, even tender, as he offered it to The Thinking Machine. Instead of accepting it, the scientist struck a match and touched it to the

corner. In silence the three men watched it burn.

"It is obvious to the dullest intelligence," said The Thinking Machine to Hutchinson Hatch, "that the man who entered Garland's room at the hotel was not a thief. He went there to open the lining of Garland's overcoat. Why? To find something which he had reason to believe was concealed therein. True, he took some money; but we can readily imagine that he happened to need a large sum at the minute, and took it, intending to return it, as he did.

"When we know that he was not a thief, we know that the thing he sought was in the lining of the coat. It just happened that this particular coat was not Garland's. The thief didn't know that when he cut it; but he had been so certain of finding what he sought that he took pains to see if it was Garland's coat. Instead of Garland's name, he found on a tailor's tab inside the pocket the name of Dickson. If we give him credit for intelligence at all, we must give him credit for imagining how another man's coat came into Garland's possession. Therefore, he went to Dickson's room, found Garland's coat, and ripped that as he did the first. Still nothing. Naturally then, he went to Garland's home and ripped open the third coat.

"All this was obvious. Now we come to the less obvious. What was he after? Money? No. He left money behind him. A jewel? Possibly but improbably, because his was not a mercenary pursuit. Then what? The remainder: some document or letter which was of such importance that he practically risked his life for it. Now, was this letter or document of value to himself, or to some one else?

"At this point logic met an obstacle in the veiled woman who waited in the automobile. Would the man permit the woman to take the chance she was taking with him if the document had been of value only to himself? It seems unlikely. On the other hand, if the document was of value to her, might she not insist on accompanying him?

"What paper was he after? A will or a deed? Perhaps; but

would not that have gone into a court of law? A letter? More likely. So what did we have? A man risking his life, prison at least, to recover a letter for a woman near and dear to him. She, perhaps, informed him that the letter was concealed in the lining of Carroll Garland's overcoat. How she knew this does not appear. We can even imagine the woman confessing the existence of a letter by which her character was menaced before she consented to become his wife. In that event everything else is accounted for; no other hypothesis would fit all the circumstances, therefore this must be correct. Obviously the stranger knew the name of the man who had the letter; therefore it would seem that there could be no mistake. I failed to see at the moment that there might be another Carroll Garland. When I saw that I telephoned to Garland, and he informed me that he had a cousin of the same name who occasionally visited this city and always stopped at the club where we called. You know what happened when we saw this second Carroll Garland. In searching for a Carroll Garland the stranger came across the wrong man and held him up. That is all, I think."

There was a long silence.

"By the way," Hatch inquired suddenly, "what is the name of the strange man and the woman?"

"Why, I don't know," responded The Thinking Machine in surprise.

19. The Problem of the Vanishing Man

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THERE was a feverish restlessness in the merciless gray eyes, an unpleasant frown on his brow, as Charles Duer Carroll paused on the curb in front of a tall down town office building and stared moodily across the busy street into nothingness. Carroll was a remarkable looking young man in many ways. He was

young,— only thirty,— and physically every line of his body expressed power, sturdiness rather than youth, force rather than grace. He was blessed too with an indomitable, uncompromising jaw, the jaw of a fighting man. The chin was square, the lips thin, avaricious perhaps, the nose slightly hooked, the cheek bones high. In general his appearance was that of a keenly alert man who is never surprised; who chooses his way and pursues it aggressively without haste, without mercy, and without mistakes.

Despite his youth,— it may have been because of it,— Carroll was president and active head of the great brokerage concern, the Carroll-Swayne-McPartland Company, with general offices on the fourth floor of this huge building behind him. He held that responsible position by right of being the grandson of its founder, old Nick Carroll. Upon his retirement from active business a year previously the old man, a wrinkled, venomous image of the young, had banged his desk with lusty fist and so declared it— Charlie Carroll was to be his successor. There had been heartburnings, objections, violent protests even; but the old man owned five thousand of the ten thousand shares of the company, and— Charles Duer Carroll was president.

Financially the young man was interested in the company only to the extent of owning twenty-five shares, this being a gift from old Nick and a necessary qualification for an office holder. Beyond this rather meager possession,— meager at least in comparison with the holdings of other officers and stockholders of the company,— young Carroll had only his salary of twenty thousand dollars a year,— nothing else, for he had been exalted to this from a salary of eighteen hundred and a clerk's desk in the general office. Here for six years old Nick Carroll had drilled the business into him, warp and woof; then had come the exaltation.

Thus it came about that a pauper, from the viewpoint of financial circles, directed the affairs of a company whose business ran into millions and tens of millions annually. If young

Carroll felt that he needed advice, he did not hesitate to disregard his fellows and go straight to the fountainhead, old Carroll. And when he asked for that advice he regarded it scrupulously, minutely. At other times— in fact, as a general thing— young Carroll sailed on his own course,— took the bit in his teeth and did as he pleased,— leaving accrued profits to inform the various stockholders of his actions. At such times old Nick was wont to rub his skinny hands together and smile.

For months after young Carroll assumed the reins of government there had been fear of a misstep and consequent wreck in the conservative hearts of officers and stockholders, except in the case of old Carroll; then this apprehension was dissipated, leaving a residue of rankling envy. Not one man in authority would have said it was not for the best that old Nick had thrust this infusion of aggressive young blood into the staid old company; but half a dozen persons at interest could have enumerated a thousand reasons why a youth of thirty should not hold the position of president, when some older man— one of themselves— knew the business better and had been in the office longer

Be that as it may, Charles Duer Carroll, the pauper, was president of the company. When he stepped into that position he brought with him new vigor and virility and vitality and a surly, curt, merciless method which had enabled him to achieve things. This was the young man— this Charles Duer Carroll— who stood on the curb one morning staring, glaring, across the busy street. At last he dropped a half smoked cigar, ground it to shreds on the pavement beneath a vigorous heel, and turning stared up at the building. There was a window of his office in the corner straight above him, and there was work that called. But Carroll wasn't thinking of that particularly; he was thinking of—
—

He snapped his fingers impatiently and entered the building. An elevator whirled him up to the fourth floor, and he entered the large outer office of the company. The forbidding frown was

still on his brow, the steeliness still in his gray eyes. Several clerks nodded respectfully as he entered; but there was no greeting in return, not even a curt time of day. He strode straight across the room to his private office without a glance either to right or left, banging the door behind him.

Over in a corner of the outer office Gordon Swayne, secretary and treasurer, was dictating letters. He glanced round with an expression of annoyance on his face at the sudden noise. "Who did that?" he demanded of his stenographer.

"It was Mr. Carroll, sir."

"Oh!" and he resumed his dictation.

For an hour or more he continued dictating; then a letter which required the attention of President Carroll came to hand and he went into the private office. He came out after a moment and spoke to his stenographer again.

"Did Mr. Carroll go into his office this morning?"

"Yes, sir."

Swayne turned and glanced round the outer office inquiringly. "Did you see him come out?" he inquired.

"No, sir."

That was all. Swayne laid the letter aside for the moment and continued with the other correspondence. From time to time he glanced impatiently at the clock, thence to the door from the hall. At ten minutes past eleven the stenographer returned to her own desk, and with a worried countenance Swayne went over and spoke to a bookkeeper near the door.

"Did you see Mr. Carroll go out?" he asked. "Or do you know where he went?"

"He hasn't gone out, sir," replied the bookkeeper. "I saw him go into his office a couple of hours ago."

Swayne went straight toward the private office with the evident intention of leaving the letter on the president's desk. The door of the room was still closed. He was reaching out his hand to open it, when it was opened from within and Carroll started out. Swayne stared at him a moment in a manner nearly

approaching amazement.

"Well, what is it?" demanded Carroll curtly.

"I— er— here's something I wanted to ask you about," Swayne explained haltingly.

Carroll glanced over the extended letter. His brows contracted and he quickly looked up at the clock.

"Did this come in the morning mail?" he demanded impatiently.

"Yes. I knew—"

"You should have called it to my attention two hours ago," said Carroll sharply. "Answer by wire that we'll accept the proposition."

Swayne's face flamed suddenly at the tone and manner. "I tried to call it to your attention two hours ago," he explained; "but you were not in your office, nor were you out here."

"I've been in my office right along," said Carroll sharply, and he glared straight into Swayne's eyes. "Wire immediately that we'll accept the proposition."

The two men stood thus face to face, eyes challenging eyes, for an instant, then simultaneously turned away. Swayne's countenance showed not only anger but bewilderment; whatever Carroll felt was not evident. Perhaps there was more color in his face than was usually there; but it had been that way when he came out of the private office, therefore was not due to any feeling aroused by the scene with Swayne.

That afternoon Carroll caused a neat placard to be placed on the door of his private office. It said briefly:

Do not enter this room without knocking. If Mr. Carroll does not answer a knock, it is to be understood that he is not to be disturbed under any circumstances.

Swayne read it and wondered, feeling somehow that it was a direct rebuke to him; the dozen or more clerks read it and wondered, and commented upon it varying; two office boys

read it and added their opinions. On the following day the incident was repeated with slight variations. Swayne saw Carroll enter the front door, pass through the main office, and go into the private office, closing the door behind him. Half an hour later Swayne spoke to the bookkeeper Black, to whom he had spoken the day before.

"Please hand that to Mr. Carroll in his private office," he directed.

The bookkeeper took the slip of paper which the secretary offered, crossed the office, and rapped on Carroll's door. After a minute he returned to Swayne, who was apparently adding a column of figures.

"Mr. Carroll doesn't answer, sir," explained the bookkeeper.

"You know he's in there, don't you?" asked Swayne blandly.

"I saw him go in a few minutes ago, yes, sir; but I didn't intrude because of the notice on the door."

"Oh, that's of no consequence," exclaimed Swayne impatiently. "This is a matter of importance. Take it into him anyway, whether he answers or not."

Again the bookkeeper went away, and again he returned. "Mr. Carroll wasn't in there, sir," he explained; "and I had to leave the paper on his desk."

"I thought you said you saw him go in?" demanded Swayne.

"I did, sir."

"Well, he must be in there; he hasn't come out," insisted Swayne. "Are you sure he isn't there?"

"Why, positive, yes, sir," replied the bewildered bookkeeper.

Swayne was bending over the high desk intently studying the figures before him. The bookkeeper stood for a little while as if awaiting another order, then resumed his work.

"We'll go in there together and see if he isn't to be found," said Swayne at last in a most matter of fact tone.

"But I just—" the bookkeeper began.

"Never mind, come along," directed Swayne; "and don't talk too loud," he added in a lower tone.

Wonderingly the bookkeeper followed the secretary. Swayne himself rapped on the door. There was no answer, and finally he pushed the door open quietly. Carroll was sitting at his desk going over the morning mail. He apparently was not aware that the door had been opened, and Swayne started to close it as he and the bookkeeper withdrew.

"You were mistaken, Black," Swayne remarked casually.

"Come in, Mr. Swayne, you and Black," called Carroll just as the door was closing.

Swayne warned the bookkeeper to silence with one quick, comprehensive glance, then reopened the door, and they entered the private office, closing the door behind them. Swayne faced his superior calmly, defiantly almost; the bookkeeper twiddled his fingers nervously.

"Since when is it customary for employees here to disobey my orders?" demanded Carroll coldly.

"Mr. Black told me you were not here, and I came to see myself," replied Swayne with a singular emphasis on every word.

"You see that he was mistaken, then?" demanded Carroll.

"Mr. Black, we shall not require your services any longer. Mr. Swayne will give you a check immediately for what is due you. And you, Mr. Swayne, understand that if my orders are not obeyed to the letter in this office I shall be compelled to make other changes. From this time forward the door will be locked when I am in my office. That's all."

"But I was obeying orders when—" Black began in trepidation.

"I put my order on the door for you to obey," interrupted Carroll. "Go write him a check, Mr. Swayne."

Swayne and Black went out, and Swayne closed the door. Carroll had been seated as they went out; but the door had no sooner closed now than they heard the lock snap inside.

"What does it mean, Black?" Swayne inquired quietly.

"I don't know, sir," replied the astonished bookkeeper. "He certainly was not in that room when I was in there. And as for

discharging me—”

“You are not discharged,” Swayne said impatiently, with a new note in his voice. “You are going to take a vacation of a couple of weeks, though, on full salary. Meanwhile have luncheon with me today.”

PROFESSOR Augustus S. F. X. Van Dusen— The Thinking Machine— straightened up in his chair suddenly and turned his squinting, belligerent eyes full upon his two visitors.

“Never mind your personal opinion or prejudices, Mr. Swayne,” he rebuked sharply. “If you want my assistance in this matter, I must insist that you relate the facts, and only the facts, freed of all coloring which may have been infused into them by your ill feeling toward Mr. Carroll. I understand readily enough the cause of this— this ill feeling. You are his senior in the office, and he was promoted over your head to be the president of the company, while you remained secretary and treasurer. Now give me the remainder of the facts, please.”

There was a considerable pause. A flush had slowly mounted Swayne’s face, and it was only with an obvious effort that he controlled himself. Once he looked toward Black, who had been a silent witness of the interview.

“Well, after those first two incidents,” Swayne went on at last, “the door of Mr. Carroll’s private office was always locked on the inside the moment he was left alone. Now I am not a fool, Professor Van Dusen. In my mind it stands to reason that if Mr. Carroll disappeared from that room twice when the door was left unlocked, he is gone from it practically all the time when the door is locked; therefore—”

“Opinion again,” interrupted The Thinking Machine curtly. “Facts, Mr. Swayne, facts!”

“If he isn’t gone, why does he keep the door locked?”

“Perhaps,” and the crabbed little scientist regarded him coldly, — “perhaps it’s really because he is busy and doesn’t want to be interrupted. That is always possible, you know. I’m

that way myself sometimes.”

“And where does he go? How does he go? And why does he go?”

“If I had to diagnose this case,” remarked The Thinking Machine almost pleasantly, “I should say it was a severe attack of idle curiosity, complicated with prejudice and suspicion.” Suddenly his whole tone, his whole manner, changed. “Has the conduct of the business of the company been all it should have been since Mr. Carroll has been in charge?” he demanded.

“Well, yes,” admitted Swayne.

“He has made money for the company?”

“Yes.”

“Perhaps increased its earnings, if anything?”

Swayne nodded reluctantly.

“Nothing is stolen?” the scientist demanded. “Nothing is missing? Nothing has gone wrong?”

Three times Swayne shook his head.

The Thinking Machine arose impatiently. “If there had been anything wrong, of course you would have gone to the police,” The Thinking Machine went on. “There being nothing wrong, you came to me. I don’t mind giving what assistance I can in instances where it works for good; but my time is valuable to the world of science, Mr. Swayne, and really I can’t be disturbed by such a trivial affair as this. If anything does go wrong, if anything does happen, you are at liberty to call again. Good day.”

The two men arose, stood staring blankly at each other for a moment, then turned to go out. Swayne’s face was crimson with anger, chagrin, at his abrupt dismissal. But at the door he turned back for one final question.

“Would you mind informing us how Mr. Carroll disappeared from his office on the two occasions when we know he did disappear, before he locked his door against us?”

“You saw him go in one door; he went out another, I suppose,” replied The Thinking Machine.

“There is only one other door,” retorted Swayne with

something like triumph in his voice. "That is blocked in his office by his desk and also blocked in the stockholders' meeting room, to which it leads, by a long couch. The offices are fifty feet from the ground; so he couldn't jump from a window. He didn't go through the stockholders' room, either, because that has only one door, and that opens into the outer office within two or three feet of the door to his private office. There are no fire escapes at either of his windows, I may add. Now, how did he get out— if he got out?"

The face was flushed and angry again, the voice raised stridently. The Thinking Machine stared for half a minute, then opened the door to the street.

"I don't know if you know it," he said calmly at last; "but you are almost convincing me that there is something wrong there, and that you are responsible for it. Good day."

The steel gray eyes of Charles Duer Carroll were blazing as he flung open the outside door of the offices of Carroll-Swayne-McPartland Company and entered the large general office. Was it anger? Not one of the dozen clerks who raised half timid eyes as he appeared could have answered the question. Was it excitement? Still there would have been no answer. He went straight to his private office, without a look or word for his subordinates then wheeled suddenly on his heel there and called:

"Mr. Swayne!"

The secretary and treasurer started a little at the imperative command, and Carroll motioned for him to approach. Then he led the way into his office, Swayne following, and the clerks outside heard the lock click. Swayne, inside, stood waiting the president's pleasure. A vague sense of physical danger oppressed him.

"Sit down!" commanded Carroll. The secretary obeyed. "You are the secretary and treasurer of this company, are you not?" demanded Carroll brutally.

"Certainly. Why?"

"Then you know, or are supposed to know, exactly what securities this company holds in trust for its customers to protect margins, don't you?" Carroll went on. His eyes were blazing as the secretary met them.

"Certainly I know," Swayne responded after a moment.

"You know that in the round three million dollars worth of securities in our vaults and safety deposit vaults over the city there is one lot of four hundred thousand dollars' worth of United States gold bonds, and that these include the numbers 0043917 to 0044120?"

Swayne disregarded the urgent demand for an immediate answer which lay behind the tone, and stopped to consider the matter carefully. Was it a trap of some sort? He couldn't tell.

"Do you or do you not know that this consignment of bonds includes those numbers?" demanded Carroll hotly.

"Yes" was the reply, "I know that those numbers are included in the Mason-Hackett trust lot. Further I know that I locked them myself in the vault in the office here."

Carroll's eyes were contracted to pin points, and all the latent power of the man seemed aroused as he turned savagely in his chair.

"If you know that to be true, then what does that mean?" and he flung down a sheet of paper violently under the eyes of the secretary and treasurer.

Swayne, with a vague sense of terror which he could not fathom at the moment, picked up the paper and glanced over it. It was an affidavit signed by E. C. Morgan & Co., brokers, and dated the day before. It was in the usual form, and attested, with innumerable reiterations, that United States Government gold bonds, numbers 0043917 to 0043940 inclusive, were in the possession of E. C. Morgan & Co., having been bought in the open market three days previously.

Swayne stared unbelievably at the affidavit, and slowly, slowly, the color deserted his face until it was chalk white. Twice he raised his eyes from the affidavit to the strangely working

face of Carroll, and twice he lowered them under the baleful glare they met. When he raised them the third time there was mystification, wonder, utter helplessness, in them.

"Well?" blazed out Carroll. "Well?" he repeated.

Swayne started to his feet.

"Just a moment, Mr. Swayne," warned the president in a voice which had become suddenly and strangely quiet. "You had better remain here for a few minutes until we look into this." He arose and went to the door, and spoke to some one outside.

"Please bring me all the securities of all kinds in our vaults," he directed, "and send messengers to bring those which are in safety deposit vaults elsewhere. Bring them all to me personally — not to Mr. Swayne."

He closed the door and turned back toward the secretary. The color came back into Swayne's face with a rush under the impetus of some powerful emotion, and he stood swaying a little, closing and unclosing his hands spasmodically. At length he found tongue, and now his voice was as steady and quiet as was the others.

"Do I understand you accuse me of— of stealing those bonds?" he demanded.

"The bonds are missing," was the reply. "They were in your care. It really is of no concern whether they were misappropriated or lost. The result is the same. Bonds were intrusted to us to protect our customers. We are responsible for them; you are responsible to us."

Swayne dropped back into a chair with his head in his hands. Utterly at a loss for words, he sat thus until there came a respectful rap on the door. Carroll opened it, and a clerk entered with a package of the securities.

"Is this all of them?" inquired Carroll.

"All except about six hundred thousand dollars' worth which were in a safety deposit vault farther up town," was the reply. "A messenger is on his way with them now."

Carroll dismissed him with a curt nod and spilled the

securities on the table before him. Then he spoke to Swayne again. There was a singular softening of his tone— Swayne chose to read it as mocking.

“Really I’m very sorry, Mr. Swayne,” the president said soothingly. “I had trusted you to the utmost: indeed, I dare say every stockholder in the company did, and whether you are at fault or not now remains to be seen. We know if those bonds are missing, as the affidavit asserts, there may be others missing, and the entire amount will have to be verified. I shall do that personally.”

Still Swayne didn’t speak. There seemed to be nothing to say. Once he glanced up into the steady gaze which was directed toward him, and relapsed immediately into his former position, with his head resting in his hands.

“Don’t misunderstand me, please,” said Carroll. “You are not a prisoner. This is a matter that will not go to the police— as yet anyway. It would not be safe for our office force to know what has happened. It might precipitate disaster. Meanwhile go on about your duties as if nothing has happened.”

“My God, Charlie! you don’t believe I stole them, do you?” Swayne burst out at last piteously as he rose to his feet.

“That’s the first time you have called me by that name since I have been president of this company,” Carroll remarked irrelevantly. “I want to like you,— I’ve always wanted to like you, — but of late you have wilfully antagonized me. Now, my first duty is here,” and he indicated the heap of securities on his desk. “I must not be interrupted until I have finished. It is as necessary to you as to me; so go on about your work. Afterward we’ll see what we can do.”

For an hour, perhaps, Swayne sat at his desk gazing dreamily across the office. Half a dozen questions were asked; he didn’t answer. But slowly there came a subtle change in his face; slowly some strong determination seized upon him, and at last it brought him to his feet, with staring eyes. For only an instant he hesitated over this idea which had come to him, and then spoke

to the girl in charge of the office telephone exchange.

"Connect booth 3 with Central," he commanded sharply, "then leave the exchange there and don't answer a ring under any circumstances!"

Within less than a minute Swayne was talking to The Thinking Machine over the wire.

"This is Gordon Swayne," he began abruptly. "Something has happened, I don't know what. You told me I might call on you if something did happen. Can you come to the office at once?"

"What happened?" demanded The Thinking Machine irritably.

"I'm afraid it's a huge defalcation," was the instant response. "Carroll has locked himself in the room from which he had disappeared previously, with millions of dollars in securities which came into his possession by a trick, and I believe as firmly as I believe I'm living that he has run away with them. It's the only thing to account for his strange actions. He went into the room an hour ago— I'd wager my life he isn't there now."

"Why don't you rap on the door and ask for him?" came an imperturbable question.

"Can you come at once?" demanded Swayne abruptly.

"I'll be there in fifteen minutes," was the reply. "Don't do anything absurd until I get there; and don't call the police, because you are probably only suffering from another manifestation of that complaint with which I found you suffering before. Good by."

Swayne forced himself to calmness again, and after a few minutes' wait rapped quietly on the door of the private office. There was no response from inside. He tried the door. It was locked. It was just then that the door from the hall opened, and The Thinking Machine entered, peering about his curiously. In tones subdued by sheer force, Swayne related the incidents of the morning in detail.

"I believe— I know— Carroll has stolen those securities!" Swayne burst out at last. "What shall I do?"

For a minute or more The Thinking Machine sat silently squinting upward with white fingers at rest tip to tip, then he arose and readjusted his glasses.

"I believe," he said quietly, "I'd smash in the door. It might be something worse than you think."

Swayne called to two of the clerks as he went, and the four men paused for an instant at the entrance to the private office.

"Well, do it!" commanded The Thinking Machine irritably.

Swayne and the clerks placed their shoulders against the door; then from inside there came a sharp click. It was the key turning in the lock. They drew back and waited. The door swung open, and Carroll in person appeared before them, with both hands behind his back. There was an instant's pause, then in the strained, harsh voice of Swayne came the question— an accusation:

"Where are those securities?"

"Here," responded Carroll, and he produced them from behind his back. "Swayne, you are a childish idiot!" he added sharply.

The Thinking Machine nearly smiled.

The explanation of the problem of the vanishing man, as The Thinking Machine stated it, was ludicrously simple. After Carroll had so mercilessly smashed Swayne's hypothesis of a defalcation, by appearing in person with the bonds and other securities, the secretary had stalked out moodily, and now he was in The Thinking Machine's small reception room, staring gloomily at the floor.

"My first diagnosis fits the case," remarked the diminutive scientist; "idle curiosity with complications. You see, Mr. Swayne, you business men are too practical, if I may say so. You in this instance could not or would not see beyond the obvious. A little imagination would have aided you— imagination coupled with a knowledge of the rudimentary rules of logic. Logic doesn't make mistakes— it is as certainly infallible as that two and two make four, not sometimes but all the time.

“Briefly I knew from your first statement of the case that Mr. Carroll was comparatively poor, despite the fact that he is the head of this great company. In ninety-nine cases out of a hundred every man wants to get rich. Mr. Carroll had increased the earnings of his company; but he had not increased his own, therefore let us credit him with a desire to get rich. If he did not have such a desire, he would not be in the position he now holds. The moment we allow for this, and also allow for the fact that the securities were returned intact, we have the solution of the entire affair. I am admitting that not only did Mr. Carroll disappear from his private office at the times you specify; but that he was also gone from that office practically all the time he kept the door locked.

“In the stock markets (I have just enough acquaintance with them to know that money begets money) it is possible to make or lose millions in an hour. Therefore if Mr. Carroll could get all the securities of the company into his possession for an hour, and cared to do so, he could work wonders in the open market. This is precisely what he did. By a trick, we’ll say, he got them together in a way which could not arouse even your suspicions, and used them on the market. The inference is that he made money by the use of those securities for that hour— the fact that he brought them back shows that he did not lose money, or he would not have had them. So, that’s all of it: Mr. Carroll used the firm’s money to make money for himself. Technically he has committed a crime; but—”

“It is a crime then?” demanded Swayne. “He was the criminal then, when he accused me of— of stealing the United States bonds?”

“By accusing you of appropriating or misplacing those bonds he did the necessary thing,” replied The Thinking Machine; “that is, distracted your attention and gave himself, even in your eyes, the best possible excuse for getting all the securities together, without even a glimmer of light as to his purpose when he got them. Mr. Carroll is a very remarkable and very able man; he

knows what he wants, and he knows how to get it. In other words, he is tremendously resourceful.”

“But how— how did he leave that private office to use the securities, say in a market transaction?” Swayne insisted.

“Simply enough,” was the reply. “I don’t know; but I dare say through a window. It is a simple matter to stand on a window sill and swing yourself to the sill of the next window, particularly when a man has the steady nerve and strength of this man. If perchance the next room was unoccupied, you see how simple it would have been for Mr. Carroll to leave his office and remain away for hours, with the door of his private office locked behind him. There is really no mystery about the affair at all. It is simply a question of how much the transaction netted Mr. Carroll.”

An hour later the board of directors of the Carroll-Swayne-McPartland Company met in the room adjoining Carroll’s private office. The call had been issued by Swayne without consulting President Carroll. The secretary stated the case pithily, violently even. Carroll listened to the end.

“I am very glad that the directors have met,” he said then as he arose. “I have committed a crime technically, as Mr. Swayne says. By that crime I have made a little more than two million dollars. The tremendous power which the millions of securities of this company gave me allowed me to turn the market upside down, to manipulate it at will, then to withdraw. This company is old; it’s conservative. If this thing becomes known outside, it will hurt. But this company has its securities again, intact; I have made a fortune. If the company chooses to accept one-half of what I made, I to hold the other half, it is agreeable to me. I had intended to make this proposition anyway.”

There was a long argument, a great many words, and finally acquiescence.

“And now shall I resign?” inquired Carroll finally.

“No,” returned old Nick Carroll. “You young scoundrel, if you even think about resigning, why— why, confound it, we’ll fire you! A man who can do such a thing as that— Why, Charlie,

you're a wonder! You'll stay! do you understand?"

He arose and glared defiantly about the room. There was not even a head shake— nothing.

"You stay on the job, Charlie," said the old man. "That's all."

20. Kidnapped Baby Blake, Millionaire

DOUGLAS BLAKE, millionaire, sat flat on the floor and gazed with delighted eyes at the unutterable beauties of a highly colored picture book. He was only fourteen months old, and the picture book was quite the most beautiful thing he had ever beheld. Evelyn Barton, a lovely girl of twenty-two or three years, sat on the floor opposite and listened with a slightly amused smile as Baby Blake in his infinite wisdom discoursed learnedly on the astonishing things he found in the book.

The floor whereon Baby Blake sat was that of the library of the Blake home, in the outskirts of Lynn. This home, handsomely but modestly furnished, had been built by Baby Blake's father, Langdon Blake, who had died four months previously, leaving Baby Blake's beautiful mother, Elizabeth Blake, heart-broken and crushed by the blow, and removing her from the social world of which she had been leader.

Here, quietly, with but three servants and Miss Barton, the nurse, who could hardly be classed as a servant— rather a companion— Mrs. Blake had lived on for the present.

The great house was gloomy, but it had been the scene of all her happiness, and she had clung to it. The building occupied relatively a central position in a plot of land facing the street for 200 feet or so, and stretching back about 300 feet. A stone wall inclosed it.

In Summer this plot was a great velvety lawn; now the first snow of the Winter had left an inch deep blanket over all, unbroken save the cement-paved walk which extended windingly from the gate in the street wall to the main entrance

of the home. This path had been cleaned of snow and was now a black streak through the whiteness.

Near the front stoop this path branched off and led on around the building toward the back. This, too, had been cleared of snow, but beyond the back door entrance the white blanket covered everything back to the rear wall of the property. There against the rear wall, to the right as one stood behind the house, was a roomy barn and stable; in the extreme left hand corner of the property was a cluster of tall trees, with limbs outstretched fantastically.

The driveway from the front was covered with snow. It had been several weeks since Mrs. Blake had had occasion to use either of her vehicles or horses, so she had closed the barn and stabled the horses outside. Now the barn was wholly deserted. From one of the great trees a swing, which had been placed there for the delight of Baby Blake, swung idly.

In the Summer Baby Blake had been wont to toddle the hundred or more feet from the house to the swing; but now that pleasure was forbidden. He was confined to the house by the extreme cold.

When the snow began to fall that day about two o'clock Baby Blake had shown enthusiasm. It was the first snow he remembered. He stood at a window of the warm library and, pointing out with a chubby finger, told Miss Barton:

"Me want doe."

Miss Barton interpreted this as a request to be taken out or permitted to go out in the snow.

"No, no," she said, firmly. "Cold. Baby must not go. Cold. Cold."

Baby Blake raised his voice in lusty protestation at this unkindness of his nurse, and finally Mrs. Blake had to pacify him. Since then a hundred things had been used to divert Baby Blake's mind from the outside.

This snow had fallen for an hour, then stopped, and the clouds passed. Now, at fifteen minutes of six o'clock in the

evening, the moon glittered coldly and clearly over the unbroken surface of the snow. Star points spangled the sky; the wind had gone, and extreme quiet lay over the place. Even the sound from the street, where an occasional vehicle passed, was muffled by the snow. Baby Blake heard a jingling sleigh bell somewhere in the distance and raised his head inquiringly.

"Pretty horse," said Miss Balton, quickly indicating a splash of color in the open book.

"Pitty horsie," said Baby Blake.

"Horse," said Miss Barton. "Four legs. One, two, three, four," she counted.

"Pitty horsie," said Baby Blake again.

He turned another page with a ruthless disregard of what might happen to it.

"Pitty kitty," he went on, wisely.

"Yes, pretty kitty," the nurse agreed.

"Pitty doggie, 'n' pitty ev'fing, ooo-o-oh," Baby Blake was gravely enthusiastic. "Ef'nit," he added, as his eye caught a full page picture.

"Elephant, yes," said Miss Barton. "Almost bedtime," she added.

"No, no," insisted Baby Blake, vigorously. "Pity ef'nit."

Then Baby Blake arose from his seat on the floor and toddled over to where Miss Barton sat, plumping down heavily, directly in front of her. Here, with the picture book in his hands he lay back with his head resting against her knee. Mrs. Blake appeared at the door.

"Miss Barton, a moment please," she said. Her face was white and there was a strange note in her voice.

A little anxiously, the girl arose and went into the adjoining room with Mrs. Blake, leaving Baby Blake with the picture book outspread on the floor. Mrs. Blake handed her an open letter, written on a piece of wrapping paper in a scrawly, almost indecipherable hand.

"This came in the late afternoon mail," said the mother.

"Read it."

" 'We hav maid plans to kiddnap your baby,'" Miss Barton read slowly. "'Nothig kann bee dun to keep us from it so it wont do no good to tel the polece. If you will git me ten thousan dolers we will not, and will go away. Advertis YES or NOA ann sin your name in a Boston Amurikan. Then we will tell you wat to do. (sined) Three. (3)'"

Miss Barton was silent a moment as she realized what she had read and there was a quick-caught breath.

"A threat to kidnap," said the mother. "Evelyn, Evelyn, can you believe it?"

"Oh, Mrs. Blake," and tears leaped to the girl's eyes quickly. "Oh, the monsters."

"I don't know what to do," said the mother, uncertainly.

"The police, I would suggest," replied the girl, quickly. "I should turn it over to the police immediately."

"Then the newspaper notoriety," said the mother, "and after all it may mean nothing. I think perhaps it would be better for us to leave here to-morrow, and go into Boston for the Winter. I could never live here with this horrible fear hanging over me— if I should lose my baby, too, it would kill me."

"As you say, but I would suggest the police, nevertheless," the girl insisted gently.

"Of course the money is nothing," she went on. "I would give every penny for the boy if I had to, but there's the fear and uncertainty of it. I think perhaps it would be better for you to pack up Douglas's little clothes to-night and to-morrow we will go to Boston to a hotel until we can make other arrangements for the Winter. You need not mention the matter to the others in the house."

"I think perhaps that would be best," said Miss Barton, "but I still think the police should be notified."

The two women left the room together and returned to the library after about ten minutes, where Baby Blake had been looking at the picture book. The baby was not there, and Miss

Barton turned and glanced quickly at Mrs. Blake. The mother apparently paid no attention, and the nurse passed into another room, thinking Douglas had gone there.

Within ten minutes the household was in an uproar— Baby Blake had disappeared. Miss Barton, the servants and the distracted mother raced through the roomy building, searching every nook and corner, calling for Douglas. No answer. At last Miss Barton and Mrs. Blake met face to face in the library over the picture book the baby had been admiring.

"I'm afraid it's happened," said the nurse.

"Kidnapped!" exclaimed the mother. "Oh," and with waxen white face she sank back on a couch in a dead faint.

Regardless of the mother, Evelyn ran to the telephone and notified the police. They responded promptly, three detectives and two uniformed officers. The threatening letter was placed in their hands, and one of them laid its contents before his chief by 'phone, a general alarm was sent out.

While the uniformed men searched the house again from attic to cellar the two other plain clothes men searched outside. Together they went over the ground, but the surface of the snow was unbroken save for their own footprints and the paved path. From the front wall, which faced the street, the detectives walked slowly back, one on each side of the house, searching in the snow for some trace of a footprint.

There was nothing to reward this vigilance, and they met behind the house. Each shook his head. Then one stopped suddenly and pointed to the snow which lay at their feet and spreading away over the immense back yard. The other detective looked intently then stopped and stared.

What he saw was the footprint of a child — a baby. The tracks led straight away through the snow toward the back wall, and without a word the two men followed them, one by one; the regular toddling steps of a baby who is only fairly certain of his feet. Ten, twenty, thirty feet they went on in a straight line and already the detectives saw a possible solution. It was that

Baby Blake had wandered away of his own free will.

Then, as they were following the tracks, they stopped suddenly astounded. Each dropped on his knees in the snow and sought vainly for something sought over a space of many feet, then turned back to the tracks again.

"Well, if that— " one began.

The footprints, going steadily forward across the yard, had stopped. There was the last, made as if Baby Blake had intended to go forward, but there were no more tracks— no more traces of tracks— nothing. Baby Blake had walked to this point, and then—

"Why he must have gone straight up in the air," gasped one of the detectives. He sank down on a small wooden box three or four feet from where the tracks ended, and wiped the perspiration from his face.

"ALL PROBLEMS may be reduced to an arithmetical basis by a simple mental process," declared Professor Augustus S. F. X. Van Dusen, emphatically. "Once a problem is so reduced, no matter what it is, it may be solved. If you play chess, Mr. Hatch, you will readily grasp what I mean. Our great chess masters are really our greatest logicians and mathematicians, yet their efforts are directed in a way which can be of no use save to demonstrate, theatrically, I may say, the unlimited possibilities of the human mind."

Hutchinson Hatch, reporter, leaned back in his chair and watched the great scientist and logician as he pottered around the long workbench beside the big window of his tiny laboratory. It was here that Professor Van Dusen had achieved some of those marvels which had attracted the attention of the world at large and had won for him a long list of honorary initials.

Hatch doubted if the Professor himself could recall these — that is beyond the more common ones of Ph. D., LL. D., M. D., and M. A. There were strange combinations of letters bestowed

by French, Italian, German and English educational and scientific institutions, which were delighted to honor so eminent a scientist as Professor Van Dusen, so-called The Thinking Machine.

The slender body of the scientist, bowed from close study and minute microscopic observation, gave the impression of physical weakness— an impression which was wholly correct— and made the enormous head which topped the figure seem abnormal. Added to this was the long yellow hair of the scientist, which sometimes as he worked fell over his face and almost obscured the keen blue eyes perpetually squinting through unusually thick glasses.

"By the reduction of a problem to an arithmetical basis," The Thinking Machine went on, "I mean the finding of the cause of an effect. For instance, a man is dead. We know only that. Reason tells us that he died naturally or was killed.

"If killed, it may have been an accident, design or suicide. There are no alternatives. The average mind grasps those possibilities instantly as facts because the average mind has to do with death and understands. We may call this primary reasoning instinct.

"In the higher reasoning which can only come from long study and experiment, imagination is necessary to supply temporarily gaps caused by absence of facts. Imagination is the backbone of the scientific mind. Marconi had to imagine wireless telegraphy before he accomplished it. It is the same with the telephone, the telegraph, the steam engine and those scores of commonplace marvels which are a part of our everyday life.

"The higher scientific mind is, perforce, the mind of a logician. It must possess imagination to a remarkable extent. For instance, science proved that all matter is composed of atoms — the molecular theory. Having proven this, scientific imagination saw that it was possible that atoms were themselves composed of more minute atoms, and sought to prove this. It did so.

"Therefore we know atoms make atoms, and that more minute atoms make those atoms, and so on down to the point of absolute indivisibility. This is logic.

"Applied in the other direction this imagination— really logic — leads to amazing possibilities. It would grade upward something like this: Man is made of atoms; man and his works as other atoms make cities; cities and nature as atoms make countries; countries and oceans as atoms make worlds.

"Then comes the supreme imaginative leap which would make worlds merely atoms, pin point parts of a vast solar system; the vast solar system itself merely an atom in some greater scheme of creation which the imagination refuses to grasp, which staggers the mind. It is all logic, logic, logic."

The irritated voice stopped as the scientist lifted a graded measuring glass to the light and squinted for an instant at its contents, which, under the amazed eyes of Hutchinson Hatch, swiftly changed from a brilliant scarlet to a pure white.

"You have heard me say frequently, Mr. Hatch," The Thinking Machine resumed, "that two and two make four, not sometimes, but all the time— atoms make atoms, therefore atoms make creations." He paused. "That change of color in this chemical is merely a change of atoms; it has in no way affected the consistency or weight of the liquid. Yet the red atoms have disappeared, eliminated by the white."

"The logic being that the white atoms are the stronger?" asked Hatch, almost timidly.

"Precisely," said The Thinking Machine, "and also constant and victorious enemies of the red atoms. In other words that was a war between red and white atoms you just witnessed. Who shall say that a war on this earth is not as puny to the observer of this earth as an atom in the greater creation, as was that little war to us?"

Hatch blinked a little at the question. It opened up something bigger than his mind had ever struggled with before, and he was a newspaper reporter, too. Professor Van Dusen

turned away and stirred up more chemicals in another glass, then poured the contents of one glass into another.

Hatch heard the telephone bell ring in the next room, and after a moment Martha, the aged woman who was the household staff of the scientist's modest home, appeared at the door.

"Some one to speak to Mr. Hatch at the 'phone," she said.

Hatch went to the 'phone. At the other end was his city editor bursting with impatience.

"A big kidnapping story," the city editor said. "A wonder. I've been looking for you everywhere. Happened tonight about 6 o'clock— It's now 8:30. Jump up to Lynn quick and get it."

Then the city editor went on to detail the known points of the mystery, as the police of Lynn had learned them; the child left alone for only two or three minutes, the letter threatening kidnapping, the demand for \$10,000 and the footsteps in the snow which led to— nothing.

Thoroughly alive with the instinct of the reporter Hatch returned to the laboratory where The Thinking Machine was at work.

"Another mystery," he said, persuasively.

"What is it?" asked The Thinking Machine, without turning.

Hatch repeated what information he had and The Thinking Machine listened without comment, down to the discovery of the tracks in the snow, and the abrupt ending of these.

"Babies don't have wings, Mr. Hatch," said The Thinking Machine, severely.

"I know," said Hatch. "Would— would you like to go out with me and look it over?"

"It's silly to say the tracks end there," declared The Thinking Machine aggressively. "They must go somewhere. If they don't, they are not the boy's tracks."

"If you'd like to go," said Hatch, coaxingly, "we could get there by half-past nine. It's half-past eight now."

"I'll go," said the other suddenly.

An hour later, they were at the front gate of the Blake home in Lynn. The Thinking Machine saw the kidnappers' letter. He looked at it closely and dismissed it apparently with a wave of his hand. He talked for a long time to the mother, to the nurse, Evelyn Barton, to the servants, then went out into the back yard where the tiny tracks were found.

Here, seeing perfectly by the brilliant light of the moon, The Thinking Machine remained for an hour. He saw the last of the tiny footprints which led nowhere, and he sat on the box where the detective had sat. Then he arose suddenly and examined the box. It was, he found, of wood, approximately two feet square, raised only four or five inches above the ground. It was built to cover and protect the main water connection with the house. The Thinking Machine satisfied himself on this point by looking inside.

From this box he sought in every direction for footprints— tracks which were not obviously those of the detectives or his own or Hatch's. No one else had been permitted to go over the ground, the detectives objecting to this until they had completed their investigations.

No other tracks or footprints appeared; there was nothing to indicate that there had been tracks which had been skillfully covered up by whoever made them.

Again The Thinking Machine sat down on the box and studied his surroundings. Hatch watched him curiously. First he looked away toward the stone wall, nearly a hundred feet in front of him. There was positively no indentation in the snow of any kind so far as Hatch could see. Then the scientist looked back toward the house— one of the detectives had told him it was just forty-eight feet from the box— but there were no tracks there save those the detectives and Hatch and himself had made.

Then The Thinking Machine looked toward the back of the lot. Here in the bright moonlight he could see the barn and the clump of trees, several inside the enclosure made by the stone

wall and others outside, extending away indefinitely, snow laden and grotesque in the moonlight. From the view in this direction The Thinking Machine turned to the other stone wall, a hundred feet or so. Here, too, he vainly sought footprints in the snow.

Finally he arose and walked in this direction with an expression of as near bewilderment on his face as Hatch had ever seen. A small dark spot in the snow had attracted his attention. It was eight or ten feet from the box. He stopped and looked at it; it was a stone of flat surface, perhaps a foot square and devoid of snow.

"Why hasn't this any snow on it?" he asked Hatch.

Hatch started and shook his head. The Thinking Machine, bowed almost to the ground, continued to stare at the stone for a moment, then straightened up and continued walking toward the wall. A few feet further on a rope, evidently a clothes line, barred his way. Without stopping, he ducked his head beneath it and walked on toward the wall, still staring at the ground.

From the wall he retraced his steps to the clothes line, then walked along under that, still staring at the snow, to its end, sixty or seventy feet toward the back of the enclosure. Two or three supports placed at regular intervals beneath the line were closely examined.

"Find anything?" asked Hatch, finally.

The Thinking Machine shook his head impatiently.

"It's amazing," he exclaimed petulantly, like a disappointed child.

"It is," Hatch agreed, cheerfully.

The Thinking Machine turned and walked back toward the house as he had come, Hatch following.

"I think we'd better go back to Boston," he said tartly.

Hatch silently acquiesced. Neither spoke until they were in the train, and The Thinking Machine turned suddenly to the wondering reporter.

"Did it seem possible to you that those are not the footprints of Baby Blake at all, only the prints of his shoes?" he demanded

suddenly.

"How did they get there?" asked Hatch, in turn.

The Thinking Machine shook his head.

On the afternoon of the next day, when the newspapers were full of the mystery, Mrs. Blake received this letter, signed "Three" as before:

"We hav the baby and will bring him bak for twenny fiv thousan dolers. Will you give it. Advertis as befour dereckted, YES or NOA."

WHEN Hutchinson Hatch went to inform The Thinking Machine of the appearance of this second letter late in the afternoon, he found the scientist sitting in his little laboratory, finger tips pressed together, squinting steadily at the ceiling. There was a little puzzled line on the high brow, a line Hatch never saw there before, and frank perplexity was in the blue eyes.

The Thinking Machine listened without changing his position as Hatch told him of the letter and its contents.

"What do you make of it all, professor?" asked the reporter.

"I don't know," was the reply— one which was a little startling to Hatch. "It's most perplexing."

"The only known facts seem to be that Baby Blake was kidnapped, and is now in the possession of the kidnappers," said Hatch.

"Those tracks— the footprints in the snow, I mean— furnish the real problem in this case," said the other after a moment. "Presumably they were made by the baby— yet they might not have been. They might have been put there merely to mislead anyone who began a search. If the baby made them — how and why do they stop as they do? If they were made merely with the baby's shoes, to mislead investigation, the same question remains— how?

"Let's see a moment. We will dismiss the seeming fact that

the baby walked on off into the air and disappeared, granting that those tracks were made by the baby. We will also dismiss the possibility that the baby was with anyone when it made the tracks, if it did make them. There were certainly no other footprints but those. There were no footprints leading from or to that point where the baby tracks stopped.

"What are the possibilities? What remains? A balloon? If we accept the balloon as a possibility we must at the same time relinquish the theory of a preconceived plan of abduction. Why? Because no successful plan could have been arranged so that that baby, of its own will, would have been in that particular spot at that particular moment. Therefore a balloon might have been floated over the place a thousand times without success, and balloons are large— they attract attention, therefore are to be avoided.

"There is a possibility— a bare one— that a balloon with a trailing anchor or hook did pass over the place, and that this hook caught up the baby by its clothing, lifting it clear of the ground. But in that event it was not kidnapping— it was accident. But here against the theory of accident we have the kidnappers' letters.

"If not a balloon, then an eagle? Hardly possible. It would take a bird of exceptional strength to have lifted a fourteen-month child, and besides there are a thousand things against such a possibility. Certainly the winged man is not known to science, yet there is every evidence of his handiwork here. Briefly, the problem is— granting that the baby itself made the tracks— how was a baby lifted out of the relative centre of a large yard?

"Consider for a moment that the baby did not make the tracks— that they were placed there by some one else. Then we are confronted by the same question— how? A person might have fastened shoes to a long pole and rigged up some arrangement of the sort, and made the tracks for a distance say of twenty feet out into the snow, but remember the tracks run

out forty-eight feet to the box you say.

"If it would have been possible for a person to stand on that box without leaving a track to it or from it, he might have finished the tracks with the shoes on a pole, but nobody went to that box."

The Thinking Machine was silent for several minutes. Hatch had nothing to say. The Thinking Machine seemed to have covered the possibilities thoroughly.

"Of course, it might have been possible for a person in a balloon to have put the tracks there, but it would have been a senseless proceeding," the scientist went on. "Certainly there could have been no motive for it strong enough to make a person invite discovery by sailing about the house in a balloon even at night. We face a stone wall, Mr. Hatch— a stone wall. It is possible for the mind to follow it only to a certain point as it now stands."

He arose and disappeared into an adjoining room, returning in a few minutes with his hat and overcoat.

"Of course," he said to Hatch, "if the baby is alive and in the possession of the kidnapers, it is possible to recover it, and we'll do that, but the real problem remains."

"If it is alive?" Hatch repeated.

"Yes, if," said the other shortly. "There are in my mind grave doubts on that point."

"But the kidnapers' letters?" said Hatch

"Let's go find out who wrote them," said the other, enigmatically.

Together the two men went to Lynn, and there for half an hour The Thinking Machine talked to Mrs. Blake. He came out finally with a package in his hand.

Miss Barton, with eyes red, apparently from weeping, and evident sorrow imprinted on her pretty face, entered the room almost at the same moment.

"Miss Barton," the scientist asked, "could you tell me how much the baby Douglas weighed— relatively, I mean?"

The girl gazed at him a moment as if startled. "About thirty pounds, I should say," she answered.

"Thanks," said The Thinking Machine, and turned to Hatch. "I have twenty-five thousand dollars in this package," he said.

Miss Barton turned and glanced quickly toward him, then passed out of the room.

"What are you going to do with it?" asked Hatch.

"It's for the kidnappers," was the reply. "The police advised Mrs. Blake not to try to make terms— I advised her the other way and she gave me this."

"What's the next step?" Hatch asked.

"To put the advertisement 'Yes' signed by Mrs. Blake in the newspaper," said The Thinking Machine. "That's in accordance with the stipulations of the letters."

An hour later the two men were in Boston. The advertisement was inserted in the Boston American as directed. The next day Mrs. Blake received a third letter.

"Rapp the munny in a ole nuspaipr ann thow it onn the trash-heape at the addge of the vakant lott one blok down the street frum wear you liv," it directed. "Putt it on topp. We wil gett it ann yore baby wil be in yore armms two ours latter. Three (3)."

This letter was immediately placed in the hands of The Thinking Machine. Mrs. Blake's face flushed with hope, and believing that the child would be restored to her, she waited in a fever of impatience.

"Now, Mr. Hatch," instructed The Thinking Machine. "Do with this package as directed. A man will come for it some time. I shall leave the task of finding out who he is, where he goes and all about him to you. He is probably a man of low mentality, though not so low as the misspelled words of his letter would have you believe. He should be easily trapped. Don't interfere with him— merely report to me when you find out these things."

Alone The Thinking Machine returned to Boston. Thirty-six

hours later, in the early morning, a telegram came for him. It was as follows:

"Have man located in Lynn and trace of baby. Come quick, if possible, to — — Hotel. Hatch."

THE Thinking Machine answered the telegraphic summons immediately, but instead of elation on his face there was another expression— possibly surprise. On the train he read and re-read the telegram.

"Have trace of baby," he mused. "Why, it's perfectly astonishing."

White-faced from exhaustion, and with eyes drooping from lack of sleep, Hutchinson Hatch met The Thinking Machine in the hotel lobby and they immediately went to a room, which the reporter had engaged on the third floor.

The Thinking Machine listened without comment as Hatch told the story of what he had done. He had placed the bundle, then hired a room overlooking the vacant lot and had remained there at the window for hours. At last night came, but there were clouds which effectively hid the moon. Then Hatch had gone out and secreted himself near the trash pile.

Here from six o'clock in the evening until four in the morning he had remained, numbed with cold and not daring to move. At last his long vigil was rewarded. A man suddenly appeared near the trash heap, glanced around furtively, and then picked up the newspaper package, felt of it to assure himself that it contained something, and then started away quickly.

The work of following him Hatch had not found difficult. He had gone straight to a tenement in the eastern end of Lynn and disappeared inside. Later in the morning, after the occupants of the house were about, Hatch made inquiries which established the identity of the man without question.

His name was Charles Gates and he lived with his wife on the fourth floor of the tenement. His reputation was not wholly

savory, and he drank a great deal. He was a man of some education, but not of such ignorance as the letters he had written would indicate.

"After learning all these facts," Hatch went on, "my idea was to see the man and talk to him or to his wife. I went there this morning about nine o'clock, as a book agent." The reporter smiled a little. "His wife, Mrs. Gates, didn't want any books, but I nearly sold her a sewing machine.

"Anyway, I got into the apartments and remained there for fifteen or twenty minutes. There was only one room which I didn't enter, of the four there. In that room, the woman explained, her husband was asleep. He had been out late the night before, she said. Of course I knew that.

"I asked if she had any babies and received a negative. From other people in the house I learned that this was true so far as they knew. There was not and has not been a baby in the apartments so far as anyone could tell me. And in spite of that fact I found this."

Hatch drew something from his pocket and spread it on his open hand. It was a baby stocking of fine texture. The Thinking Machine took it and looked at it closely.

"Baby Blake's?" he asked.

"Yes," replied the reporter. "Both Mrs. Blake and the nurse, Miss Barton, identify it."

"Dear me! Dear me!" exclaimed the scientist, thoughtfully. Again the puzzled expression came into his face.

"Of course, the baby hasn't been returned?" went on the scientist.

"Of course not!" said Hatch.

"Did Mrs. Gates behave like a woman who had suddenly received a share of twenty-five thousand dollars?" asked The Thinking Machine.

"No," Hatch replied. "She looked as if she had attended a mixed ale party. Her lip was cut and bruised and one eye was black."

"That's what her husband did when he found out what was in the newspaper," commented The Thinking Machine, grimly.

"It wasn't money, at all, then?" asked Hatch.

"Certainly not."

Neither said anything for several minutes. The Thinking Machine sat idly twisting the tiny stocking between his long, slender fingers with the little puzzled line in his brow.

"How do you account for that stocking in Gates's possession?" asked the reporter at last.

"Let's go talk to Mrs. Blake," was the reply. "You didn't tell her anything about this man Gates getting the package?"

"No," said the reporter.

"It would only worry her," explained the scientist. "Better let her hope, because—"

Hatch looked at The Thinking Machine quickly, startled.

"Because, what?" he asked.

"There seems to be a very strong probability that Baby Blake is dead," the other responded.

Pondering that, yet conceiving no motive which would cause the baby's death, Hatch was silent as he and the scientist together went to the house of Mrs. Blake. Miss Barton, the nurse, answered the door.

"Miss Barton," said The Thinking Machine, testily as they entered, "just when did you give this stocking,"— and he produced it— "to Charles Gates?"

The girl flushed quickly, and she stammered a little.

"I— I don't know what you mean," she said. "Who is Charles Gates?"

"May we see Mrs. Blake?" asked the scientist. He squinted steadily into the girl's eyes.

"Yes— of course— that is, I suppose so," she stammered.

She disappeared, and in a few minutes Mrs. Blake appeared. There was an eager, expectant look in her face. It was hope. It faded when she saw the solemn face of The Thinking Machine.

"What recommendations did Miss Barton have when you

engaged her?" he began pointedly.

"The best I could ask," was the reply. "She was formerly a governess in the family of the Governor-General of Canada. She is well educated, and came to me from that position."

"Is she well acquainted in Lynn?" asked the scientist.

"That I couldn't say," replied Mrs. Blake. "If you are thinking that she might have some connection with this affair—"

"Ever go out much?" interrupted her questioner.

"Rarely, and then usually with me. She is more of a companion than servant."

"How long have you had her?"

"Since a week or so after my baby" — and the mother's lips trembled a little— "was born. She has been devoted to me since the death of my husband. I would trust her with my life."

"This is your baby's stocking?"

"Beyond any doubt," she replied as she again examined it.

"I suppose he had several pairs like this?"

"I really don't know. I should think so."

"Will you please have Miss Barton, or someone else, find those stockings and see if all the pairs like this are complete," instructed The Thinking Machine.

Wonderingly, Mrs. Blake gave the order to Miss Barton, who as wonderingly received it and went out of the room with a quick, resentful look at the bowed figure of the scientist.

"Did you ever happen to notice, Mrs. Blake, whether or not your baby could open a door? For instance, the front door?"

"I believe he could," she replied. "He could reach them because the handles are low, as you see," and she indicated the knob on the front door, which was visible through the reception hall room where they stood.

The Thinking Machine turned suddenly and strode to the window of the library, looking out on the back yard. He was debating something in his own mind. It was whether or not he should tell this mother his fear of her son's death, or should hide it from her until such time as it would appear itself. For some

reason known only to himself he considered the child's death not only a possibility, but a probability.

Whatever might have resulted from this mental debate was not to be known then, for suddenly, as he stood staring out the rear window overlooking the spot where the baby's tracks had been seen in the snow— now melted— he started a little and peered eagerly out. It was the first sight he had had of the yard since the night he had examined it by moonlight.

"Dear me, dear me," he exclaimed suddenly.

Turning abruptly he left the room, and a moment later Hatch saw him in the back yard. Mrs. Blake at the window watched curiously. Outside The Thinking Machine walked straight out to the spot where the baby's tracks had been, and from there Hatch saw him stop and stare at the slightly raised box which covered the water connections.

From this box the scientist took five steps toward a flat-topped stone— the one he had noticed previously— and Hatch saw that it was about ten feet. Then from this he saw The Thinking Machine take four steps to where the sagging clothes-line hung. It was probably eight feet. Then the bowed figure of The Thinking Machine walked on out toward the rear wall of the enclosure, under the clothes-line.

When he stopped at the end of the line he was within fifteen feet of the dangling swing which had been Baby Blake's. This swing was attached to a limb twenty feet above — a stout limb which jutted straight out from the tree trunk for fifteen feet. The Thinking Machine studied this for a moment, then passed on beyond the tree, still looking up, until he disappeared.

Fifteen minutes later he returned to the library where Mrs. Blake awaited him. There was a question in Hatch's eyes.

"I've got it," snapped The Thinking Machine, much as if there had been a denial. "I've got it."

ON THE following day, by direction of The Thinking Machine, Mrs. Blake ordered the following advertisement inserted in all

Boston and Lynn newspapers, to occupy one-quarter of a page.

*TO THE PERSONS WHO NOW
HOLD DOUGLAS BLAKE:*

Your names, residence and place of concealment of Douglas Blake, fourteen months old, and the manner in which he came into your possession are now known.

Mrs. Blake, the mother, does not desire to prosecute for reasons you know, and will give you twenty-four hours in which to return the baby safely to its home in Lynn.

Any attempt to escape of either person concerned will be followed instantly by arrest. Meanwhile you are closely watched, and will be for twenty-four hours, at which time arrest and prosecution will follow.

No questions will be asked when the child is returned and your names will be fully protected. There will also be a reward of \$1,000 for the person who returns the baby.

Hutchinson Hatch read this when The Thinking Machine had completed it and had stared at the scientist in wonderment.

"Is it true?" he asked.

"I am afraid the child is dead," repeated The Thinking Machine evasively. "I am very much afraid of it."

"What gives you that impression?" Hatch asked.

"I know now how the child was taken from that back yard, if we grant that the child itself made the tracks," was the rejoinder. "And knowing how it was taken away makes me more fearful than I have been that it is not alive; in fact, that it may never be seen again."

"How did the child leave the yard?"

"If the child does not appear within twenty-four hours," was the reply, "I shall tell you. It is a hideous story."

Hatch had to be content with that statement of the case for the moment. None knew better than he how useless it would be to question The Thinking Machine.

"Did you happen to know, Mr. Hatch," The Thinking Machine

asked, "that in the event of the death of Douglas Blake, his fortune of nearly three million dollars left in trust by his father would be divided among four relatives of Mrs. Blake?"

"What?" asked Hatch, a little startled.

"Suppose for instance, Baby Blake was never found, as seems possible," went on the other. "After a certain number of years, I believe, in a case of that kind there is an assumption of death and property passes to heirs. You see then, there was a motive, and a strong one, underlying this entire affair."

"But, surely there wouldn't be murder?"

"Not murder," responded The Thinking Machine tartly. "I haven't even suggested murder. I said I believe the child is dead. If it is not dead who would benefit by his disappearance? The four whom I named. Well, suppose Baby Blake fell into the hands of those people. It would be comparatively an easy matter for them to lose it in some way— not necessarily kill it— have it adopted in some orphan asylum, place it anywhere to hide its identity. That's the main thing."

Hatch began to see light faintly, he thought.

"Then this advertisement is to the people who may be holding the child now?" he asked.

"It is so addressed," was the other's reply.

"But, but— " Hatch began.

"Once upon a time a noted wit, who was of necessity a student of human nature," The Thinking Machine began, "declared there was one thing carefully hidden in every man's life which would ruin him should it be known, or land him in prison. He volunteered to prove this, taking any man whose name was suggested. An eminent minister of the gospel was named as the victim. The wit sent a telegram to the minister, who was attending a banquet: 'All is discovered. Flee while there is opportunity,' signed 'Friend.' The minister read it, arose and left the room, and from that day to this he has never been seen again."

Hatch laughed, and The Thinking Machine glanced at him

with an annoyed expression on his face.

"I had no intention of arousing your laughter," he said sharply. "I merely intended to illustrate the possible effect of a guilty conscience."

When the flaming advertisement in the newspapers was called to the attention of the police, they were first surprised, then amused. Then they grew serious. After a while an officer went to Mrs. Blake and asked what it meant. She informed him that she had acted at the suggestion of Professor Van Dusen. Then the police were amused again; they are wont to feign an amusement which they never feel in the presence of a superior mind.

That afternoon, Hatch, who by direction of The Thinking Machine, was on watch again near the Blake home, received a strange request from the scientist by telephone. It was:

"Go to the Blake home immediately, see the picture book which Baby Blake was looking at just before his disappearance, and report to me by 'phone just what's in it."

"The picture book?" Hatch repeated.

"Certainly, the picture book," said the scientist, irritably. "Also find out for me from the nurse and Mrs. Blake if the baby cried easily, that is from a slight hurt or anything of that kind."

With these things in his mind Hatch went to the Blake house, had a look at the picture book, asked the questions as to Baby Blake's propensity to weep on slight provocation, and returned to the 'phone. Feeling singularly foolish, he enumerated to The Thinking Machine the things he had seen in the picture book.

"There's a horse, and a cat with three kittens," he explained. "Also a pale purple rhinoceros, and a dog, an elephant, a deer, an alligator, a monkey, three chicks, and a whole lot of birds."

"Any eagle?" queried the other.

"Yes, an eagle among them, with a rabbit in its claws."

"And the monkey. What is it doing?"

"Hanging by its tail to a blue tree with a coconut in its hands," replied the reporter. The humor of the situation was

beginning to appeal to him.

"And about the baby crying?" the scientist asked.

"He does not cry easily, both the mother and nurse say," replied Hatch. "They both describe him as a brave little chap, who cries sometimes when he can't have his own way, but never from fright or a minor hurt."

"Good," he heard The Thinking Machine say. "Watch in front of the Blake house tonight until half past eight. If the child returns it will probably be earlier than that. Speak to the person who brings him, as he leaves the house, and he will tell you his story I think, if you can make him understand that he is in no danger. Immediately after that come to my home in Boston."

Hatch was treading on air; when The Thinking Machine gave positive directions of that sort it usually meant that the final curtain was to be drawn aside. He so construed this.

Thus it came to pass that Hutchinson Hatch planted himself, carefully hidden so he might command a view of the front of the Blake home, and waited there for many hours.

MRS. BLAKE, the mother of the millionaire baby, had just finished her dinner and had retired to a small parlor off the library, where she reclined on a couch. It was ten minutes of seven o'clock in the evening. After a moment Miss Barton entered the room.

The girl heard a sob from the couch and impulsively ran to Mrs. Blake, who was weeping softly— she was always weeping now. A few comforting words, a little consolation such as one woman is able to give to another, and the girl arose from her knees and started into the library, where a dim light burned.

As she was entering that room again, she paused, screamed and without a word sank down on the floor, fainting. Mrs. Blake rose from the couch and rushed toward the door. She screamed too, but that scream was of a different tone from that of the girl — it was a fierce scream of mother-love satisfied.

For there on the floor of the library sat Baby Blake,

millionaire, gazing with enraptured eyes at his brilliantly colored picture book.

"Pitty hossie," he said to his mother. "See! See!"

IT WAS an affecting scene Hutchinson Hatch witnessed in the Blake home about half-past seven o'clock. It was that of a mother clasping a baby to her breast while tears of joy and hysteria streamed from her eyes. Baby Blake struggled manfully to free himself, but the mother clung to him.

"My boy, my boy," she sobbed again and again.

Miss Barton sat on the floor beside the mother and wept too. Hatch saw it, and received some thanks, heartfelt, but broken with a little sobbing laughter. Then he had to dry his eyes, too, and Hutchinson Hatch was not a sentimental man.

"There will be no prosecution, Mrs. Blake, I suppose?" he asked.

"No, no, no," was the half laughing, half tearful reply. "I am content."

"I would like to ask a favor, if you don't mind?" he suggested.

"Anything — anything for you and Professor Van Dusen," was the reply.

"Will you lend me the baby's picture book until to-morrow?" he asked.

"Certainly," and in her happiness the mother forgot to note the strangeness of the request.

Hatch's purpose in borrowing the book was not clear even to himself; in his mind had grown the idea that in some way The Thinking Machine connected this book with the disappearance of the child, and he was burning with curiosity to get the book and return to Boston, where The Thinking Machine might throw some light on the mystery. For it was still a mystery— a perplexing, baffling mystery that he could in no way grasp, even now that the baby was safe at home again.

In Boston the reporter went straight to the home of The Thinking Machine. The scientist was pottering about the little

laboratory and only turned to look at Hatch when he entered.

"Baby back home?" he asked, shortly.

"Yes," said the reporter.

"Good," said the other, and he rubbed his slender hands together briskly. "Sit down, Mr. Hatch. It was a little better after all than I hoped for. Now your story first. What happened when the baby was brought back home?"

"I waited as you directed from afternoon until a few minutes to seven," Hatch explained. "I could plainly see anyone who approached the front gate of the Blake place, although I could not be seen well, remaining in the shadow of the building opposite.

"I saw two or three people go up to the gate and enter the yard, but they were tradespeople. I spoke to them as they came out and ascertained this for myself. At last I saw a man approaching carrying something closely wrapped in his arms. He stopped at the gate, stared up the path a moment, glanced around several times and entered the yard. He was carrying Baby Blake. I knew it instinctively.

"He went to the front door of the house and there I lost him in the shadow for a moment. Subsequent developments showed that he opened this front door, which was not locked, put the baby down and closed the door softly. Then he came rapidly down the path toward the gate. An instant later I heard two screams from the house. I knew then that the baby was there, dead or alive — probably alive.

"The man who had brought it also heard the screams and accelerated his pace somewhat, so that I had to run. He heard me coming and he ran, too. It was a two-block chase before I caught him, and when I did he turned on me. I thought it was to fight.

"There was a promise of no arrest or prosecution," he said.

"I assured him hurriedly, and then walked on down the street beside him. He told me a queer story— it might be true or it might not, but I believe it. This was that the baby had been in

his and his wife's care from about half-past six o'clock of the evening it disappeared until a few minutes before when he had returned it to its home.

"The man's name is Sheldon— Michael Sheldon— and he is an ex-convict. He served four years for burglary, and at one time had a pretty nasty record. He told me of it in explanation of his reasons for not turning the baby over to the police. Now he has reformed and is leading a new life. He is a clerk in a store here in Lynn, and despite his previous record is, I ascertained, a trusted and reliable man.

"Now here comes the queer part of the story. It seems that Sheldon and his wife live on the third floor of a tenement in northern Lynn. Their dining room has one window, which leads to a fire escape. He and his wife were at supper about half-past six— in other words, a little more than half an hour from the time the baby disappeared from the Blake home.

"After awhile they heard a noise— they didn't know what— on the fire escape. They paid no attention. Finally they heard another noise from the fire escape— that of a baby crying. Then Sheldon went to the window and opened it. There on the fire escape was Baby Blake. How he got there no human being knows."

"I know now," said The Thinking Machine. "Go on."

"Puzzled and bewildered they took the child off the iron structure, where only the barest chance had prevented it from falling and being killed on the pavement below. The baby was apparently uninjured save for a few bruises, but his clothing was soiled and rumpled, and he was terribly cold. The wife, mother-like, set out to warm the little fellow and make him comfortable with hot milk and a steaming bath. The husband, Sheldon, says he went out to find how it was possible for the baby to have reached the fire escape. He knew no baby lived in the building.

"He looked long and carefully. There was no possible way by which a man could have climbed the fire escape to the third floor, and therefore certainly no way by which a fourteen-

month-old baby could climb there. There is a fence there which is pretty tall, say six feet, but even standing on this a man would have had to leap straight up in the air for five feet, and nobody I know could do it with a baby in his arms, particularly when the snow was there and everything was so slippery a person could hardly hold on.

"It seems that then Sheldon made inquiries of some of his neighbors, occupants of the house, but no one could throw any light on the subject. He did not tell them then of the baby, indeed, never told them. First, from the fine quality of the clothing, there had been an idea in his mind that the baby was one of a well-to-do family, and he remained quiet that night hoping that next day he might be able to learn something and possibly get a reward for the return of the child. He had given up the problem of how it got where he found it."

Hatch paused a moment and lighted a cigar.

"Well, next day," he went on, "Sheldon and his wife both saw the newspaper account of the mysterious disappearance of Baby Blake. The photographs of the missing child convinced them that Baby Blake was the child they had— the child they had really saved from death. Then came the question of returning the child to its home or turning it over to the police.

"Instantly the fact that a threat had been made to kidnap the child and a demand for ten thousand dollars made was borne in on Sheldon he became frightened. Remember he had a bad record. He was afraid of the police. He did not believe that he— however innocent he might be— could go to the police, turn over the baby and make them believe the strange story. I readily see how some wooden-headed department officials would have made his life a burden. I know the police. It is ninety-nine dollars to a cent they would have made him a prisoner and perhaps railroaded him for the kidnapping."

"Yes, I see," interrupted The Thinking Machine.

"So then he and his wife tried to devise a method of getting the baby back home. They thought of all sorts of things, but

none satisfied them entirely. And they were still debating this point and considering it when your advertisement promised immunity. As a matter of fact it scared Sheldon. He imagined that you knew, and knew if he were even remotely connected with the matter it would get him in trouble. Then he resolved to take the baby back home on the promise of immunity."

There was a little pause. The Thinking Machine sat staring steadily at the ceiling.

"Is that all?" he asked at last.

"I think so," replied Hatch. "And now how— how in the name of all that's good or evil did that baby disappear from the middle of its own back yard and then suddenly appear on a fire escape three blocks away, to be taken in by strangers?"

"It's quite the most remarkable thing I have ever come across," The Thinking Machine said. "A balloon anchor, which picked up the child by its clothing, through accident, and then dropped it safely on the fire escape might answer the question in a way. But it does not fully answer it. The baby was carried there.

"Frankly I will say that I could see no possible explanation of the affair until the day you and I were talking to Mrs. Blake and I stood looking out of the library window. Then it all flashed on me instantly. I went out and satisfied myself. When I returned to the library I was satisfied in all reason that Baby Blake was dead; I had had such an idea before. I was firmly convinced the child was dead when I put those advertisements in the newspapers. But there was still a chance that he was not.

"Several seemingly unanswerable questions faced me when I found the end of the baby's footprints in the snow. I instantly saw that if the baby had made those tracks it had been lifted suddenly from the ground, but by what? From where? How had it been taken away? The balloon I could not consider seriously, although as I say it offered a possible solution. An eagle? I could not consider that seriously. Eagles are rare; eagles powerful enough to lift a baby weighing thirty pounds are extremely rare,

practically unknown save in the far West; certainly I never heard of one doing such a thing as this. Therefore I passed the eagle by as an improbability.

"I satisfied myself that there were no other footsteps save the baby's in the yard. Then— what? It occurred to me that someone standing on the little box might have reached over and lifted the child out of its tracks. But it was too far away, I thought, and if someone did stand there and lift the child that someone could not have leaped from that box over the stone wall, which was approximately a hundred feet away in all directions.

"I saw the stone ten feet away. Could a man stand on the box and leap to the stone? Generally, no. And from the stone, where could he have gone? Obviously nowhere. I considered this matter not minutes, but hours and days, and no light came to me. I was convinced, though, that the box was the starting point if the baby had made the tracks. I was now fairly certain that the baby did make the tracks. He wanted to get out in the snow, was left alone, opened the front door and wandered out.

"Then it all occurred to me in a new light. What living animal could have stood on the box and lifted the child clear four feet away, then leaped from there to the stone, and from the stone where? The clothes line is eight feet or so from the stone. It is a pretty sturdy rope and capable of bearing a considerable weight, supported as it is."

He stopped and turned his eyes toward Hatch, who listened eagerly.

"Do you see it now?" he asked.

The reporter shook his head, bewildered.

"The thing that lifted Baby Blake from the snow stood on the box, leaped from there to the stone, from there to the clothes line, along which it climbed to the end. From the wooden support at the end it is a clear distance of fifteen feet to the nearest thing— the swing. This thing made that leap, climbed the swing rope, disappeared into the trees, moving through the

branches freely from one tree to another, and dropped to the ground nearly a block away."

"A monkey?" suggested Hatch.

"An orang-outang," nodded The Thinking Machine.

"An orang-outang?" gasped Hatch, and he shuddered a little.

"I see now why you were positive the child was dead."

"An orang-outang is the only living thing within the knowledge of man which could have done all these things—therefore an orang-outang did them," said the other emphatically. "Remember a full-sized orang-outang is nearly as tall as a man, has a reach relatively a third longer than a very tall man would have, and a strength which is enormous. It could have made the leaps and probably would have made them rather than step in the snow. They despise snow, being from the tropics themselves, and will not step in it unless they are compelled to. The leap of fifteen feet to the swing rope from the clothes line would have been comparatively easy, even with a child in its arms.

"Where could it have come from? I don't know. Possibly escaped from a ship, because sailors have strange pets; might have gotten away from a menagerie somewhere, or a circus. I only knew that an orang-outang was the actual abductor. The difficulties of a man climbing the fire escape where the baby was found were nothing to an orang-outang. There it would have merely been a leap up of five feet."

The Thinking Machine stopped as if he had finished. Hatch respected this silence for a moment, but he had questions yet to be answered.

"Who wrote the kidnapping letters demanding money?" was the first.

"You found him— Charles Gates," was the reply.

"And the letter written after the abduction demanding twenty-five thousand dollars?"

"Was written by him, of course— but this was a bluff. This poor deluded fool imagined that someone would actually go out

and toss \$25,000 on a trash-heap where he could find it, and then he could escape. That was his purpose. He knew nothing of the whereabouts of the baby. He beat his wife when he found, instead of money, I had put some good advice in the newspaper bundle for him."

"But the stocking in his room, and your question to Miss Barton?"

"This man did write a letter threatening kidnapping before the baby disappeared. It was perfectly possible that after the kidnapping he stole the little stocking and two or three other things from the laundry, for Miss Barton noticed they were missing, or got someone to do so for him. And, the baby being gone, he was intending to send these to the mother, one at a time, I imagine, to make her believe he had the child. That is transparent. I asked Miss Barton the question about giving them to Gates to see if she did— her manner would have told me. I instantly saw she did not— had never even heard of him, as a matter of fact. I also dropped that remark about there being \$25,000 in the package to see what effect it would have on her."

"And the facts you had about the baby's fortune going to relatives of Mrs. Blake in the event of the baby's death?"

"I got from her, by a casual question as to the succession of the estate. There was still a possibility that the baby was in their hands despite the manner of its disappearance. As it transpired they had nothing whatever to do with it. The advertisement I put in the paper was a palpable trick — but it had the desired effect. It touched a guilty conscience. The guilty conscience feared it was trapped and acted accordingly."

"It seems perfectly incomprehensible that the baby should have come out of it alive," mused Hatch. "I had always imagined orang-outangs to be extremely ferocious."

"Read up on them a bit, Mr. Hatch," said The Thinking Machine. "You will find they are of strangely contradictory and mischievous natures. Where this child was permitted to escape safely others might have been torn limb from limb."

There was silence for a time. Hatch considered the matter all explained, until suddenly the picture book occurred to him.

"You 'phoned to me to see the picture book and tell you what's in it," he said. "Why?"

"Suppose there was a picture of a monkey in it," rejoined the other. "I merely wanted to know if the baby would know a monkey, in other words an orang-outang, if it saw one. Why? Because if the baby knew one it would not necessarily be afraid of one in the flesh, and would not of necessity cry out when the orang-outang picked it up. As a matter of fact no one heard it scream when taken away."

"Oh, I see," said Hatch. "There was a picture of a monkey in the book. I told you." He took out the book and looked at it. "Here," and he extended it to the scientist who glanced at it casually, and nodded.

"If you want to prove this just as I have told it," said The Thinking Machine, "go to the Blake home to-morrow, put your finger on that picture and show it to Baby Blake. He will prove it."

It came to pass that Hatch did this very thing.

"Pitty monkey," said Baby Blake. "Doe, doe."

"He means he wants to go," Miss Barton exclaimed to Hatch. Hatch was satisfied.

TWO DAYS later the *Boston American* carried a dispatch from a village near Lynn stating that a semi-tame orang-outang had been killed by a policeman. It had belonged to a sailor, from whose vessel it had escaped more than two weeks before.

21. The Chase of the Golden Plate

The Saturday Evening Post Sep 8, Sep 15, Sep 22, Sep 29,
Oct 6 1906

Part 1. The Burglar And The Girl

CARDINAL RICHELIEU and the Mikado stepped out on a narrow balcony overlooking the entrance to Seven Oaks, lighted their cigarettes and stood idly watching the throng as it poured up the wide marble steps. Here was an over-corpulent Dowager Empress of China, there an Indian warrior in full paint and toggery, and mincing along behind him two giggling Geisha girls. Next, in splendid robes of rank, came the Czar of Russia. The Mikado smiled.

"An old enemy of mine," he remarked to the Cardinal.

A Watteau Shepherdess was assisted out of an automobile by Christopher Columbus and they came up the walk arm-in-arm, while a Pierrette ran beside them laughing up into their faces. D'Artagnan, Athos, Aramis, and Porthos swaggered along with insolent, clanking swords.

"Ah!" exclaimed the Cardinal. "There are four gentlemen whom I know well."

Mary Queen of Scots, Pocahontas, the Sultan of Turkey, and Mr. Micawber chatted amicably together in one language. Behind them came a figure which immediately arrested attention. It was a Burglar, with dark lantern in one hand and revolver in the other. A black mask was drawn down to his lips, a slouch hat shaded his eyes, and a kit of the tools of his profession swung from one shoulder.

"By George!" commented the Cardinal. "Now, that's clever."

"Looks like the real thing," the Mikado added.

The Burglar stood aside a moment, allowing a diamond-burdened Queen Elizabeth to pass, then came on up the steps. The Cardinal and the Mikado passed through an open window into the reception-room to witness his arrival.

"Her Royal Highness, Queen Elizabeth!" the graven-faced servant announced.

The Burglar handed a card to the liveried Voice and noted, with obvious amusement, a fleeting expression of astonishment on the stolid face. Perhaps it was there because the card had

been offered in that hand which held the revolver. The Voice glanced at the name on the card and took a deep breath of relief.

"Bill, the Burglar!" he announced.

There was a murmur of astonishment and interest in the reception-hall and the ballroom beyond. Thus it was that the Burglar found himself the centre of attention for a moment, while a ripple of laughter ran around. The entrance of a Clown, bounding in behind him, drew all eyes away, however, and the Burglar was absorbed in the crowd.

It was only a few minutes later that Cardinal Richelieu and the Mikado, seeking diversion, isolated the Burglar and dragged him off to the smoking-room. There the Czar of Russia, who was on such terms of intimacy with the Mikado that he called him Mike, joined them, and they smoked together.

"How did you ever come to hit on a costume like that?" asked the Cardinal of the Burglar.

The Burglar laughed, disclosing two rows of strong, white teeth. A cleft in the square-cut, clean-shaven chin, visible below the mask, became more pronounced. A woman would have called it a dimple.

"I wanted something different," he explained. "I couldn't imagine anything more extraordinary than a real burglar here ready to do business, so I came."

"It's lucky the police didn't see you," remarked the Czar.

Again the Burglar laughed. He was evidently a good-natured craftsman, despite his sinister garb.

"That was my one fear— that I would be pinched before I arrived," he replied. " 'Pinched,' I may explain, is a technical term in my profession meaning juggled, nabbed, collared, run in. It seemed that my fears had some foundation, too, for when I drove up in my auto and stepped out a couple of plain-clothes men stared at me pretty hard."

He laid aside the dark lantern and revolver to light a fresh cigarette. The Mikado picked up the lantern and flashed the light

on and off several times, while the Czar sighted the revolver at the floor.

"Better not do that," suggested the Burglar casually. "It's loaded."

"Loaded?" repeated the Czar. He laid down the revolver gingerly.

"Surest thing, you know," and the Burglar laughed quizzically. "I'm the real thing, you see, so naturally my revolver is loaded. I think I ought to be able to make quite a good haul, as we say, before unmasking-time."

"If you're as clever as your appearance would indicate," said the Cardinal admiringly, "I see no reason why it shouldn't be worth while. You might, for instance, make a collection of Elizabethan jewels. I have noticed four Elizabeths so far, and it's early yet."

"Oh, I'll make it pay," the Burglar assured him lightly. "I'm pretty clever; practised a good deal, you know. Just to show you that I am an expert, here is a watch and pin I took from my friend, the Czar, five minutes ago."

He extended a well-gloved hand in which lay the watch and diamond pin. The Czar stared at them a moment in frank astonishment; patted, himself all over in sudden trepidation; then laughed sheepishly. The Mikado tilted his cigar up to a level with the slant eyes of his mask, and laughed.

"In the language of diplomacy, Nick," he told the Czar, "you are what is known as 'easy.' I thought I had convinced you of that."

"Gad, you are clever," remarked the Cardinal. "I might have used you along with D'Artagnan and the others."

The Burglar laughed again and stood up lazily.

"Come on, this is stupid," he suggested. "Let's go out and see what's doing."

"Say, just between ourselves tell us who you are," urged the Czar. "Your voice seems familiar, but I can't place you."

"Wait till unmasking-time," retorted the Burglar good-

naturedly. "Then you'll know. Or if you think you could bribe that stone image who took my card at the door you might try. He'll remember me. I never saw a man so startled in all my life as he was when I appeared."

The quartet sauntered out into the ballroom just as the signal for the grand march was given. A few minutes later the kaleidoscopic picture began to move. Stuyvesant Randolph, the host, as Sir Walter Raleigh, and his superb wife, as Cleopatra, looked upon the mass of colour, and gleaming shoulders, and jewels, and brilliant uniforms, and found it good — extremely good.

Mr. Randolph smiled behind his mask at the striking incongruities on every hand: Queen Elizabeth and Mr. Micawber; Cardinal Richelieu and a Pierrette; a Clown dancing attendance on Marie Antoinette. The Czar of Russia paid deep and devoted attention to a light-footed Geisha girl, while the Mikado and Folly, a jingling thing in bells and abbreviated skirts, romped together.

The grotesque figure of the march was the Burglar. His revolver was thrust carelessly into a pocket and the dark lantern hung at his belt. He was pouring a stream of pleasing nonsense into the august ear of Lady Macbeth, nimbly seeking at the same time to evade the pompous train of the Dowager Empress. The grand march came to an end and the chattering throng broke up into little groups.

Cardinal Richelieu strolled along with a Pierrette on his arm.

"Business good?" he inquired of the Burglar.

"Expect it to be," was the reply.

The Pierrette came and, standing on her tip-toes— silly, impractical sort of toes they were— made a moue at the Burglar.

"Oooh!" she exclaimed. "You are perfectly horrid."

"Thank you," retorted the Burglar.

He bowed gravely, and the Cardinal, with his companion, passed on. The Burglar stood gazing after them a moment, then

glanced around the room, curiously, two or three times. He might have been looking for someone. Finally he wandered away aimlessly through the crowd.

HALF AN HOUR later the Burglar stood alone, thoughtfully watching the dancers as they whirled by. A light hand fell on his arm— he started a little— and in his ear sounded a voice soft with the tone of a caress.

"Excellent, Dick, excellent!"

The Burglar turned quickly to face a girl— a Girl of the Golden West, with deliciously rounded chin, slightly parted rose-red lips, and sparkling, eager eyes as blue as— as blue as— well, they were blue eyes. An envious mask hid cheeks and brow, but above a sombrero was perched arrogantly on crisp, ruddy-gold hair, flaunting a tricoloured ribbon. A revolver swung at her hip — the wrong hip— and a Bowie knife, singularly inoffensive in appearance, was thrust through her girdle. The Burglar looked curiously a moment, then smiled.

"How did you know me?" he asked.

"By your chin," she replied. "You can never hide yourself behind a mask that doesn't cover that."

The Burglar touched his chin with one gloved hand.

"I forgot that," he remarked ruefully.

"Hadn't you seen me?"

"No."

The Girl drew nearer and laid one hand lightly on his arm; her voice dropped mysteriously.

"Is everything ready?" she asked.

"Oh, yes," he assured her quickly. His voice, too, was lowered cautiously.

"Did you come in the auto?"

"Yes."

"And the casket?"

For an instant the Burglar hesitated.

"The casket?" he repeated.

"Certainly, the casket. Did you get it all right?"

The Burglar looked at her with a new, business-like expression on his lips. The Girl returned his steady gaze for an instant, then her eyes dropped. A faint colour glowed in her white chin. The Burglar suddenly laughed admiringly.

"Yes, I got it," he said.

She took a deep breath quickly, and her white hands fluttered a little.

"We will have to go in a few minutes, won't we?" she asked uneasily.

"I suppose so," he replied.

"Certainly before unmasking-time," she said, "because— because I think there is someone here who knows, or suspects, that— "

"Suspects what?" demanded the Burglar.

"Sh-h-h-h!" warned the Girl, and she laid a finger on her lips. "Not so loud. Someone might hear. Here are some people coming now that I'm afraid of. They know me. Meet me in the conservatory in five minutes. I don't want them to see me talking to you."

She moved away quickly and the Burglar looked after her with admiration and some impalpable quality other than that in his eyes. He was turning away toward the conservatory when he ran into the arms of an oversized man lumpily clad in the dress of a courtier. The lumpy individual stood back and sized him up.

"Say, young fellow, that's a swell rig you got there," he remarked.

The Burglar glanced at him in polite astonishment— perhaps it was the tone of the remark.

"Glad you like it," he said coldly, and passed on.

As he waited in the conservatory the amusement died out of his eyes and his lips were drawn into a straight, sharp line. He had seen the lumpy individual speak to another man, indicating generally the direction of the conservatory as he did so. After a moment the Girl returned in deep agitation.

"We must go now— at once," she whispered hurriedly.
"They suspect us. I know it, I know it!"

"I'm afraid so," said the Burglar grimly. "That's why that detective spoke to me."

"Detective?" gasped the Girl.

"Yes, a detective disguised as a gentleman."

"Oh, if they are watching us what shall we do?"

The Burglar glanced out, and seeing the man to whom the lumpy individual had spoken coming toward the conservatory, turned suddenly to the Girl.

"Do you really want to go with me?" he asked.

"Certainly," she replied eagerly.

"You are making no mistake?"

"No, Dick, no!" she said again. "But if we are caught— "

"Do as I say and we won't be caught," declared the Burglar. His tone now was sharp, commanding. "You go on alone toward the front door. Pass out as if to get a breath of fresh air. I'll follow in a minute. Watch for me. This detective is getting too curious for comfort. Outside we'll take the first auto and run for it."

He thoughtfully whirled the barrel of his revolver in his fingers as he stared out into the ballroom. The Girl clung to him helplessly a moment; her hand trembled on his arm.

"I'm frightened," she confessed. "Oh, Dick, if— "

"Don't lose your nerve," he commanded. "If you do we'll both be caught. Go on now, and do as I say. I'll come— but I may come in a hurry. Watch for me."

For just a moment more the Girl clung to his arm.

"Oh, Dick, you darling!" she whispered. Then, turning, she left him there.

From the door of the conservatory the Burglar watched her splendid, lithe figure as she threaded her way through the crowd. Finally she passed beyond his view and he sauntered carelessly toward the door. Once he glanced back. The lumpy individual was following slowly. Then he saw a liveried servant

approach the host and whisper to him excitedly.

"This is my cue to move," the Burglar told himself grimly.

Still watching, he saw the servant point directly at him. The host, with a sudden gesture, tore off his mask and the Burglar accelerated his pace.

"Stop that man!" called the host.

For one brief instant there was the dead silence which follows general astonishment— and the Burglar ran for the door. Several pairs of hands reached out from the crowd toward him.

"There he goes, there!" exclaimed the Burglar excitedly.
"That man ahead! I'll catch him!"

The ruse opened the way and he went through. The Girl was waiting at the foot of the steps.

"They're coming!" he panted as he dragged her along. "Climb in that last car on the end there!"

Without a word the Girl ran to the auto and clambered into the front seat. Several men dashed out of the house. Wonderingly her eyes followed the vague figure of the Burglar as he sped along in the shadow of a wall. He paused beneath a window, picked up something and raced for the car.

"Stop him!" came a cry.

The Burglar flung his burden, which fell at the Girl's feet with a clatter, and leaped. The auto swayed as he landed beside her. With a quick twist of the wheel he headed out.

"Hurry, Dick, they're coming!" gasped the Girl.

The motor beneath them whirled and panted and the car began to move.

"Halt, or I'll fire," came another cry.

"Down!" commanded the Burglar.

His hand fell on the Girl's shoulder heavily and he dragged her below the level of the seat. Then, bending low over the wheel, he gave the car half power. It leaped out into the road in the path of its own light, just as there came a pistol-shot from behind, followed instantly by another.

The car sped on.

STUYVESANT Randolph, millionaire, owner of Seven Oaks and host of the masked ball, was able to tell the police only what happened, and not the manner of its happening. Briefly, this was that a thief, cunningly disguised as a Burglar with dark lantern and revolver in hand, had surreptitiously attended the masked ball by entering at the front door and presenting an invitation card. And when Mr. Randolph got this far in his story even he couldn't keep his face straight.

The sum total of everyone's knowledge, therefore, was this:

Soon after the grand march a servant entered the smoking-room and found the Burglar there alone, standing beside an open window, looking out. This smoking-room connected, by a corridor, with a small dining-room where the Randolph gold plate was kept in ostentatious seclusion. As the servant entered the smoking-room the Burglar turned away from the window and went out into the ballroom. He did not carry a bundle; he did not appear to be excited.

Fifteen or twenty minutes later the servant discovered that eleven plates of the gold service, valued roughly at \$15,000, were missing. He informed Mr. Randolph. The information, naturally enough, did not elevate the host's enjoyment of the ball, and he did things hastily.

Meanwhile— that is, between the time when the Burglar left the smoking-room and the time when he passed out the front door— the Burglar had talked earnestly with a masked Girl of the West. It was established that, when she left him in the conservatory, she went out the front door. There she was joined by the Burglar, and then came their sensational flight in the automobile— a 40 horsepower car that moved like the wind. The automobile in which the Burglar had gone to Seven Oaks was left behind; thus far it had not been claimed.

The identity of the Burglar and the Girl made the mystery. It was easy to conjecture — that's what the police said— how the Burglar got away with the gold plate. He went into the smoking-room, then into the dining-room, dropped the gold plate into a sack and threw the sack out of a window. It was beautifully simple. Just what the Girl had to do with it wasn't very clear; perhaps a score or more articles of jewelry, which had been reported missing by guests, engaged her attention.

It was also easy to see how the Burglar and the Girl had been able to shake off pursuit by the police in two other automobiles. The car they had chosen was admittedly the fastest of the scores there, the night was pitch-dark, and, besides, a Burglar like that

was liable to do anything. Two shots had been fired at him by the lumpy courtier, who was really Detective Cunningham, but they had only spurred him on.

These things were easy to understand. But the identity of the pair was a different and more difficult proposition, and there remained the task of yanking them out of obscurity. This fell to the lot of Detective Mallory, who represented the Supreme Police Intelligence of the Metropolitan District, happily combining a No. 11 shoe and a No. 6 hat. He was a cautious, suspicious, far-seeing man — as police detectives go. For instance, it was he who explained the method of the theft with a lucidity that was astounding.

Detective Mallory and two or three of his satellites heard Mr. Randolph's story, then the statements of his two men who had attended the ball in costume, and the statements of the servants. After all this Mr. Mallory chewed his cigar and thought violently for several minutes. Mr. Randolph looked on expectantly; he didn't want to miss anything.

"As I understand it, Mr. Randolph," said the Supreme Police Intelligence at last, "each invitation-card presented at the door by your guests bore the name of the person to whom it was issued?"

"Yes," replied Mr. Randolph.

"Ah!" exclaimed the detective shrewdly. "Then we have a clue."

"Where are those cards, Curtis?" asked Mr. Randolph of the servant who had received them at the door.

"I didn't know they were of further value, sir, and they were thrown away— into the furnace."

Mr. Mallory was crestfallen.

"Did you notice if the card presented at the door by the Burglar on the evening of the masked ball at Seven Oaks bore a name?" he asked. He liked to be explicit like that.

"Yes, sir. I noticed it particularly because the gentleman was dressed so queerly."

"Do you remember the name?"

"No, sir."

"Would you remember it if you saw it or heard it again?"

The servant looked at Mr. Randolph helplessly.

"I don't think I would, sir," he answered.

"And the Girl? Did you notice the card she gave you?"

"I don't remember her at all, sir. Many of the ladies wore wraps when they came in, and her costume would not have been noticeable if she had on a wrap."

The Supreme Intelligence was thoughtful for another few minutes. At last he turned to Mr. Randolph again.

"You are certain there was only one man at that ball dressed as a Burglar?" he asked.

"Yes, thank Heaven," replied Mr. Randolph fervently. "If there'd been another one they might have taken the piano."

The Supreme Intelligence frowned.

"And this girl was dressed like a Western girl?" he asked.

"Yes. A sort of Spirit-of-the-West costume."

"And no other woman there wore such a dress?"

"No," responded Mr. Randolph.

"No," echoed the two detectives.

"Now, Mr. Randolph, how many invitations were issued for the ball?"

"Three or four hundred. It's a big house," Mr. Randolph apologised, "and we tried to do the thing properly."

"How many persons do you suppose actually attended the ball?"

"Oh, I don't know. Three hundred, perhaps."

Detective Mallory thought again.

"It's unquestionably the work of two bold and clever professional crooks," he said at last judicially, and his satellites hung on his words eagerly. "It has every ear-mark of it. They perhaps planned the thing weeks before, and forged invitation-cards, or perhaps stole them — perhaps stole them."

He turned suddenly and pointed an accusing finger at the

servant, Curtis.

"Did you notice the handwriting on the card the Burglar gave you?" he demanded.

"No, sir. Not particularly."

"I mean, do you recall if it was different in any way from the handwriting on the other cards?" insisted the Supreme Intelligence.

"I don't think it was, sir."

"If it had been would you have noticed it?"

"I might have, sir."

"Were the names written on all the invitation-cards by the same hand, Mr. Randolph?"

"Yes: my wife's secretary."

Detective Mallory arose and paced back and forth across the room with wrinkles in his brow.

"Ah!" he said at last, "then we know the cards were not forged, but stolen from someone to whom they had been sent. We know this much, therefore— " he paused a moment.

"Therefore all that must be done," Mr. Randolph finished the sentence, "is to find from whom the card or cards were stolen, who presented them at my door, and who got away with the plate."

The Supreme Intelligence glared at him aggressively. Mr. Randolph's face was perfectly serious. It was his gold plate, you know.

"Yes, that's it," Detective Mallory assented. "Now we'll get after this thing right. Downey, you get that automobile the Burglar left at Seven Oaks and find its owner; also find the car the Burglar and the Girl escaped in. Cunningham, you go to Seven Oaks and look over the premises. See particularly if the Girl left a wrap— she didn't wear one away from there— and follow that up. Blanton, you take a list of invited guests that Mr. Randolph will give you, check off those persons who are known to have been at the ball, and find out all about those who were not, and— follow that up."

"That'll take weeks!" complained Blanton.

The Supreme Intelligence turned on him fiercely.

"Well?" he demanded. He continued to stare for a moment, and Blanton wrinkled up in the baleful glow of his superior's scorn. "And," Detective Mallory added magnanimously, "I will do the rest."

Thus the campaign was planned against the Burglar and the Girl.

HUTCHINSON Hatch was a newspaper reporter, a long, lean, hungry-looking young man with an insatiable appetite for facts. This last was, perhaps, an astonishing trait in a reporter; and Hatch was positively finicky on the point. That's why his City Editor believed in him. If Hatch had come in and told his City Editor that he had seen a blue elephant with pink side-whiskers his City Editor would have known that that elephant was blue—mentally, morally, physically, spiritually and everlastingly— not any washed-out green or purple, but blue.

Hatch was remarkable in other ways, too. For instance, he believed in the use of a little human intelligence in his profession. As a matter of fact, on several occasions he had demonstrated that it was really an excellent thing— human intelligence. His mind was well poised, his methods thorough, his style direct.

Along with dozens of others Hatch was at work on the Randolph robbery, and knew what the others knew— no more. He had studied the case so closely that he was beginning to believe, strangely enough, that perhaps the police were right in their theory as to the identity of the Burglar and the Girl— that is, that they were professional crooks. He could do a thing like that sometimes — bring his mind around to admit the possibility of somebody else being right.

It was on Saturday afternoon— two days after the Randolph affair— that Hatch was sitting in Detective Mallory's private office at Police Headquarters laboriously extracting from the

Supreme Intelligence the precise things he had not found out about the robbery. The telephone-bell rang. Hatch got one end of the conversation — he couldn't help it. It was something like this:

"Hello! ... Yes, Detective Mallory ... Missing? ... What's her name? ... What? ... Oh, Dorothy! ... Yes? ... Merritt? ... Oh, Merryman! ... Well, what the deuce is it then? ... SPELL IT! ... M-e-r-e-d-i-t-h. Why didn't you say that at first? ... How long has she been gone? ... Huh? . . . Thursday evening? ... What does she look like? ... Auburn hair ... Red, you mean? ... Oh, ruddy! I'd like to know what's the difference."

The detective had drawn up a pad of paper and was jotting down what Hatch imagined to be the description of a missing girl. Then:

"Who is this talking?" asked the detective.

There was a little pause as he got the answer, and, having the answer, he whistled his astonishment, after which he glanced around quickly at the reporter, who was staring dreamily out a window.

"No," said the Supreme Intelligence over the 'phone. "It wouldn't be wise to make it public. It isn't necessary at all. I understand. I'll order a search immediately. No. The newspapers will get nothing of it. Good-by."

"A story?" inquired Hatch carelessly as he detective hung up the receiver.

"Doesn't amount to anything," was the reply.

"Yes, that's obvious," remarked the reporter drily.

"Well, whatever it is, it is not going to be made public," retorted the Supreme Intelligence sharply. He never did like Hatch, anyway. "It's one of those things that don't do any good in the newspapers, so I'll not let this one get there."

Hatch yawned to show that he had no further interest in the matter, and went out. But there was the germ of an idea in his head which would have startled Detective Mallory, and he paced up and down outside to develop it. A girl missing! A red-headed

girl missing! A red-headed girl missing since Thursday! Thursday was the night of the Randolph masked ball. The missing Girl of the West was red-headed! Mallory had seemed astonished when he learned the name of the person who reported this last case! Therefore the person who reported it was high up—perhaps! Certainly high enough up to ask and receive the courtesy of police suppression— and the missing girl's name was Dorothy Meredith!

Hatch stood still for a long time on the curb and figured it out. Suddenly he rushed off to a telephone and called up Stuyvesant Randolph at Seven Oaks. He asked the first question with trepidation:

"Mr. Randolph, can you give me the address of Miss Dorothy Meredith?"

"Miss Meredith?" came the answer. "Let's see. I think she is stopping with the Morgan Greytons, at their suburban place."

The reporter gulped down a shout. "Worked, by thunder!" he exclaimed to himself. Then, in a deadly, forced calm:

"She attended the masked ball Thursday evening, didn't she?"

"Well, she was invited."

"You didn't see her there?"

"No. Who is this?"

Then Hatch hung up the receiver. He was nearly choking with excitement, for, in addition to all those virtues which have been enumerated, he possessed, too, the quality of enthusiasm. It was no part of his purpose to tell anybody anything. Mallory didn't know, he was confident, anything of the girl having been a possible guest at the ball. And what Mallory didn't know now wouldn't be found out, all of which was a sad reflection upon the detective.

In this frame of mind Hatch started for the suburban place of the Greytons. He found the house without difficulty. Morgan Greyton was an aged gentleman of wealth and exclusive ideas — wasn't in. Hatch handed a card bearing only his name, to a maid,

and after a few minutes Mrs. Greyton appeared. She was a motherly, sweet-faced old lady of seventy, with that grave, exquisite courtesy which makes mere man feel ashamed of himself. Hatch had that feeling when he looked at her and thought of what he was going to ask.

"I came up direct from Police Headquarters," he explained diplomatically, "to learn any details you may be able to give us as to the disappearance of Miss Meredith."

"Oh, yes," replied Mrs. Greyton. "My husband said he was going to ask the police to look into the matter. It is most mysterious— most mysterious! We can't imagine where Dollie is, unless she has eloped. Do you know that idea keeps coming to me and won't go away?"

She spoke as if it were a naughty child.

"If you'll tell me something about Miss Meredith— who she is and all that?" Hatch suggested.

"Oh, yes, to be sure," exclaimed Mrs. Greyton. "Dollie is a distant cousin of my husband's sister's husband," she explained precisely. "She lives in Baltimore, but is visiting us. She has been here for several weeks. She's a dear, sweet girl, but I'm afraid— afraid she has eloped."

The aged voice quivered a little, and Hatch was more ashamed of himself than ever.

"Some time ago she met a man named Herbert— Richard Herbert, I think, and— "

"Dick Herbert?" the reporter exclaimed suddenly.

"Do you know the young gentleman?" inquired the old lady eagerly.

"Yes, it just happens that we were classmates in Harvard," said the reporter.

"And is he a nice young man?"

"A good, clean-cut, straightforward, decent man," replied Hatch. He could speak with a certain enthusiasm about Dick Herbert. "Go on, please," he urged.

"Well, for some reason I don't know, Dollie's father objects

to Mr. Herbert's attentions to her— as a matter of fact, Mr. Meredith has absolutely prohibited them— but she's a young, headstrong girl, and I fear that, although she had outwardly yielded to her father's wishes, she had clandestinely kept up a correspondence with Mr. Herbert. Last Thursday evening she went out unattended and since then we have not heard from her— not a word. We can only surmise— my husband and I— that they have eloped. I know her father and mother will be heart-broken, but I have always noticed that if a girl sets her heart on a man, she will get him. And perhaps it's just as well that she has eloped now since you assure me he is a nice young man."

Hatch was choking back a question that rose in his throat. He hated to ask it, because he felt this dear, garrulous old woman would have hated him for it, if she could have known its purpose. But at last it came.

"Do you happen to know," he asked, "if Miss Meredith attended the Randolph ball at Seven Oaks on Thursday evening?"

"I dare say she received an invitation," was the reply. "She receives many invitations, but I don't think she went there. It was a costume affair, I suppose?"

The reporter nodded.

"Well, I hardly believe she went there then," Mrs. Greyton replied. "She has had no costume of any sort made. No, I am positive she has eloped with Mr. Herbert, but I should like to hear from her to satisfy myself and explain to her parents. We did not permit Mr. Herbert to come here, and it will be very hard to explain."

Hatch heard the slight rustle of a skirt in the hall and glanced toward the door. No one appeared, and he turned back to Mrs. Greyton.

"I don't suppose it possible that Miss Meredith has returned to Baltimore?" he asked.

"Oh, no!" was the positive reply. "Her father there

telegraphed to her to-day— I opened it— saying he would be here, probably to-night, and I— I haven't the heart to tell him the truth when he arrives. Somehow, I have been hoping that we would hear and— and— "

Then Hatch took his shame in his hand and excused himself. The maid attended him to the door.

"How much is it worth to you to know if Miss Meredith went to the masked ball?" asked the maid cautiously.

"Eavesdropping, eh?" asked Hatch in disgust.

The maid shrugged her shoulders.

"How much is it worth?" she repeated.

Hatch extended his hand. She took a ten-dollar bill which lay there and secreted it in some remote recess of her being.

"Miss Meredith did go to the ball," she said. "She went there to meet Mr. Herbert. They had arranged to elope from there and she had made all her plans. I was in her confidence and assisted her."

"What did she wear?" asked Hatch eagerly.

"Her costume was that of a Western Girl," the maid responded. "She wore a sombrero, and carried a Bowie knife and revolver."

Hatch nearly swallowed his palate.

HATCH started back to the city with his brain full of seven-column heads. He thoughtfully lighted a cigar just before he stepped on the car.

"No smoking," said the conductor.

The reporter stared at him with dull eyes and then went in and sat down with the cigar in his mouth.

"No smoking, I told you," bawled the conductor.

"Certainly not," exclaimed Hatch indignantly. He turned and glared at the only other occupant of the car, a little girl. She wasn't smoking. Then he looked at the conductor and awoke suddenly.

"Miss Meredith is the girl," Hatch was thinking. "Mallory

doesn't even dream it and never will. He won't send a man out there to do what I did. The Greytons are anxious to keep it quiet, and they won't say anything to anybody else until they know what really happened. I've got it bottled up, and don't know how to pull the cork. Now, the question is: What possible connection can there be between Dorothy Meredith and the Burglar? Was Dick Herbert the Burglar? Why, of course not! Then— what?"

Pondering all these things deeply, Hatch left the car and ran up to see Dick Herbert. He was too self-absorbed to notice that the blinds of the house were drawn. He rang, and after a long time a man-servant answered the bell.

"Mr. Herbert here?" Hatch asked.

"Yes, sir, he's here," replied the servant, "but I don't know if he can see you. He is not very well, sir."

"Not very well?" Hatch repeated.

"No, it's not that he's sick, sir. He was hurt and — "

"Who is it, Blair?" came Herbert's voice from the top of the stair.

"Mr. Hatch, sir."

"Come up, Hatch!" Dick called cordially. "Glad to see you. I'm so lonesome here I don't know what to do with myself."

The reporter ran up the steps and into Dick's room.

"Not that one," Dick smiled as Hatch reached for his right hand. "It's out of business. Try this one—" And he offered his left.

"What's the matter?" Hatch inquired.

"Little hurt, that's all," said Dick. "Sit down. I got it knocked out the other night and I've been here in this big house alone with Blair ever since. The doctor told me not to venture out yet. It has been lonesome, too. All the folks are away, up in Nova Scotia, and took the other servants along. How are you, anyhow?"

Hatch sat down and stared at Dick thoughtfully. Herbert was a good-looking, forceful person of twenty-eight or thirty, and a corking right-guard. Now he seemed a little washed out, and

there was a sort of pallor beneath the natural tan. He was a young man of family, unburdened by superlative wealth, but possessing in his own person the primary elements of success. He looked what Hatch had said of him: a "good, clean-cut, straightforward, decent man."

"I came up here to say something to you in my professional capacity," the reporter began at last; "and frankly, I don't know how to say it."

Dick straightened up in his chair with a startled expression on his face. He didn't speak, but there was something in his eyes which interested Hatch immensely.

"Have you been reading the papers?" the reporter asked—"that is, during the last couple of days?"

"Yes."

"Of course, then, you've seen the stories about the Randolph robbery?"

Dick smiled a little.

"Yes," he said. "Clever, wasn't it?"

"It was," Hatch responded enthusiastically. "It was." He was silent for a moment as he accepted and lighted a cigarette. "It doesn't happen," he went on, "that, by any possible chance, you know anything about it, does it?"

"Not beyond what I saw in the papers. Why?"

"I'll be frank and ask you some questions, Dick," Hatch resumed in a tone which betrayed his discomfort. "Remember I am here in my official capacity— that is, not as a friend of yours, but as a reporter. You need not answer the questions if you don't want to."

Dick arose with a little agitation in his manner and went over and stood beside the window.

"What is it all about?" he demanded. "What are the questions?"

"Do you know where Miss Dorothy Meredith is?"

Dick turned suddenly and glared at him with a certain lowering of his eyebrows which Hatch knew from the football

days.

"What about her?" he asked.

"Where is she?" Hatch insisted.

"At home, so far as I know. Why?"

"She is not there," the reporter informed him, "and the Greytons believe that you eloped with her."

"Eloped with her?" Dick repeated. "She is not at home?"

"No. She's been missing since Thursday evening— the evening of the Randolph affair. Mr. Greyton has asked the police to look for her, and they are doing so now, but quietly. It is not known to the newspapers — that is, to other newspapers. Your name has not been mentioned to the police. Now, isn't it a fact that you did intend to elope with her on Thursday evening?"

Dick strode feverishly across the room several times, then stopped in front of Hatch's chair.

"This isn't any silly joke?" he asked fiercely.

"Isn't it a fact that you did intend to elope with her on Thursday evening?" the reporter went on steadily.

"I won't answer that question."

"Did you get an invitation to the Randolph ball?"

"Yes."

"Did you go?"

Dick was staring straight down into his eyes.

"I won't answer that, either," he said after a pause.

"Where were you on the evening of the masked ball?"

"Nor will I answer that."

When the newspaper instinct is fully aroused a reporter has no friends. Hatch had forgotten that he ever knew Dick Herbert. To him the young man was now merely a thing from which he might wring certain information for the benefit of the palpitating public.

"Did the injury to your arm," he went on after the approved manner of attorney for the prosecution, "prevent you going to the ball?"

"I won't answer that."

"What is the nature of the injury?"

"Now, see here, Hatch," Dick burst out, and there was a dangerous undertone in his manner, "I shall not answer any more questions— particularly that last one— unless I know what this is all about. Several things happened on the evening of the masked ball that I can't go over with you or anyone else, but as for me having any personal knowledge of events at the masked ball — well, you and I are not talking of the same thing at all."

He paused, started to say something else, then changed his mind and was silent.

"Was it a pistol shot?" Hatch went on calmly.

Dick's lips were compressed to a thin line as he looked at the reporter, and he controlled himself only by an effort.

"Where did you get that idea?" he demanded.

Hatch would have hesitated a long time before he told him where he got that idea; but vaguely it had some connection with the fact that at least two shots were fired at the Burglar and the Girl when they raced away from Seven Oaks.

While the reporter was rummaging through his mind for an answer to the question there came a rap at the door and Blair appeared with a card. He handed it to Dick, who glanced at it, looked a little surprised, then nodded. Blair disappeared. After a moment there were footsteps on the stairs and Stuyvesant Randolph entered.

DICK AROSE and offered his left hand to Mr. Randolph, who calmly ignored it, turning his gaze instead upon the reporter.

"I had hoped to find you alone," he said frostily.

Hatch made as if to rise.

"Sit still, Hatch," Dick commanded. "Mr. Hatch is a friend of mine, Mr. Randolph. I don't know what you want to say, but whatever it is, you may say it freely before him."

Hatch knew that humour in Dick. It always preceded the psychological moment when he wanted to climb down someone's throat and open an umbrella. The tone was calm, the

words clearly enunciated, and the face was white — whiter than it had been before.

"I shouldn't like to— — " Mr. Randolph began.

"You may say what you want to before Mr. Hatch, or not at all, as you please," Dick went on evenly.

Mr. Randolph cleared his throat twice and waved his hands with an expression of resignation.

"Very well," he replied. "I have come to request the return of my gold plate."

Hatch leaned forward in his chair, gripping its arms fiercely. This was a question bearing broadly on a subject that he wanted to mention, but he didn't know how. Mr. Randolph apparently found it easy enough.

"What gold plate?" asked Dick steadily.

"The eleven pieces that you, in the garb of a Burglar, took from my house last Thursday evening," said Mr. Randolph. He was quite calm.

Dick took a sudden step forward, then straightened up with flushed face. His left hand closed with a snap and the nails bit into the flesh; the fingers of the helpless right hand worked nervously. In a minute now Hatch could see him climbing all over Mr. Randolph.

But again Dick gained control of himself. It was a sort of recognition of the fact that Mr. Randolph was fifty years old; Hatch knew it; Mr. Randolph's knowledge on the subject didn't appear. Suddenly Dick laughed.

"Sit down, Mr. Randolph, and tell me about it," he suggested.

"It isn't necessary to go into details," continued Mr. Randolph, still standing. "I had not wanted to go this far in the presence of a third person, but you forced me to do it. Now, will you or will you not return the plate?"

"Would you mind telling me just what makes you think I got it?" Dick insisted.

"It is as simple as it is conclusive," said Mr. Randolph. "You

received an invitation to the masked hall. You went there in your Burglar garb and handed your invitation-card to my servant. He noticed you particularly and read your name on the card. He remembered that name perfectly. I was compelled to tell the story as I knew it to Detective Mallory. I did not mention your name; my servant remembered it, had given it to me in fact, but I forbade him to repeat it to the police. He told them something about having burned the invitation-cards."

"Oh, wouldn't that please Mallory?" Hatch thought.

"I have not even intimated to the police that I have the least idea of your identity," Mr. Randolph went on, still standing. "I had believed that it was some prank of yours and that the plate would be returned in due time. Certainly I could not account for you taking it in any other circumstances. My reticence, it is needless to say, was in consideration of your name and family. But now I want the plate. If it was a prank to carry out the rôle of the Burglar, it is time for it to end. If the fact that the matter is now in the hands of the police has frightened you into the seeming necessity of keeping the plate for the present to protect yourself, you may dismiss that. When the plate is returned to me I shall see that the police drop the matter."

Dick had listened with absorbed interest. Hatch looked at him from time to time and saw only attention— not anger.

"And the Girl?" asked Dick at last. "Does it happen that you have as cleverly traced her?"

"No," Mr. Randolph replied frankly. "I haven't the faintest idea who she is. I suppose no one knows that but you. I have no interest further than to recover the plate. I may say that I called here yesterday, Friday, and asked to see you, but was informed that you had been hurt, so I went away to give you opportunity to recover somewhat."

"Thanks," said Dick drily. "Awfully considerate."

There was a long silence. Hatch was listening with all the multitudinous ears of a good reporter.

"Now the plate," Mr. Randolph suggested again impatiently.

"Do you deny that you got it?"

"I do," replied Dick firmly.

"I was afraid you would, and, believe me, Mr. Herbert, such a course is a mistaken one," said Mr. Randolph. "I will give you twenty-four hours to change your mind. If, at the end of that time, you see fit to return the plate, I shall drop the matter and use my influence to have the police do so. If the plate is not returned I shall be compelled to turn over all the facts to the police with your name."

"Is that all?" Dick demanded suddenly.

"Yes, I believe so."

"Then get out of here before I— " Dick started forward, then dropped back into a chair.

Mr. Randolph drew on his gloves and went out, closing the door behind him.

For a long time Dick sat there, seemingly oblivious of Hatch's presence, supporting his head with his left hand, while the right hung down loosely beside him. Hatch was inclined to be sympathetic, for, strange as it may seem, some reporters have even the human quality of sympathy— although there are persons who will not believe it.

"Is there anything I can do?" Hatch asked at last. "Anything you want to say?"

"Nothing," Dick responded wearily. "Nothing. You may think what you like. There are, as I said, several things of which I cannot speak, even if it comes to a question— a question of having to face the charge of theft in open court. I simply can't say anything."

"But— but—" stammered the reporter.

"Absolutely not another word," said Dick firmly.

THOSE satellites of the Supreme Police Intelligence of the Metropolitan District who had been taking the Randolph mystery to pieces to see what made it tick, lined up in front of Detective Mallory, in his private office, at police headquarters,

early Saturday evening. They did not seem happy. The Supreme Intelligence placed his feet on the desk and glowered; that was a part of the job.

"Well, Downey?" he asked.

"I went out to Seven Oaks and got the automobile the Burglar left, as you instructed," reported Downey. "Then I started out to find its owner, or someone who knew it. It didn't have a number on it, so the job wasn't easy, but I found the owner all right, all right."

Detective Mallory permitted himself to look interested.

"He lives at Merton, four miles from Seven Oaks," Downey resumed. "His name is Blake— William Blake. His auto was in the shed a hundred feet or so from his house on Thursday evening at nine o'clock. It wasn't there Friday morning."

"Umph!" remarked Detective Mallory.

"There is no question but what Blake told me the truth," Downey went on. "To me it seems probable that the Burglar went out from the city to Merton by train, stole the auto and ran it on to Seven Oaks. That's all there seems to be to it. Blake proved ownership of the machine and I left it with him."

The Supreme Intelligence chewed his cigar frantically.

"And the other machine?" he asked.

"I have here a blood-stained cushion, the back of a seat from the car in which the Burglar and the Girl escaped," continued Downey in a walk-right-up-ladies-and-gentlemen sort of voice. "I found the car late this afternoon at a garage in Pleasantville. We knew, of course, that it belonged to Nelson Sharp, a guest at the masked ball. According to the manager of the garage the car was standing in front of his place this morning when he arrived to open up. The number had been removed."

Detective Mallory examined the cushion which Downey handed to him. Several dark brown stains told the story— one of the occupants of the car had been wounded.

"Well, that's something," commented the Supreme Intelligence. "We know now that when Cunningham fired at

least one of the persons in the car was hit, and we may make our search accordingly. The Burglar and the Girl probably left the car where it was found during the preceding night."

"It seems so," said Downey. "I shouldn't think they would have dared to keep it long. Autos of that size and power are too easily traced. I asked Mr. Sharp to run down and identify the car and he did so. The stains were new."

The Supreme Intelligence digested that in silence while his satellites studied his face, seeking some inkling of the convolutions of that marvellous mind.

"Very good, Downey," said Detective Mallory at last. "Now Cunningham?"

"Nothing," said Cunningham in shame and sorrow. "Nothing."

"Didn't you find anything at all about the premises?"

"Nothing," repeated Cunningham. "The Girl left no wrap at Seven Oaks. None of the servants remembers having seen her in the room where the wraps were checked. I searched all around the place and found a dent in the ground under the smoking-room window, where the gold plate had been thrown, and there were what seemed to be footprints in the grass, but it was all nothing."

"We can't arrest a dent and footprints," said the Supreme Intelligence cuttingly.

The satellites laughed sadly. It was part of the deference they owed to the Supreme Intelligence.

"And you, Blanton?" asked Mr. Mallory. "What did you do with the list of guests?"

"I haven't got a good start yet," responded Blanton hopelessly. "There are three hundred and sixty names on the list. I have been able to see possibly thirty. It's worse than making a city directory. I won't be through for a month. Randolph and his wife checked off a large number of these whom they knew were there. The others I am looking up as rapidly as I can."

The detectives sat moodily thoughtful for uncounted minutes. Finally Detective Mallory broke the silence:

"There seems to be no question but that any clew that might have come from either of the automobiles is disposed of unless it is the fact that we now know one of the thieves was wounded. I readily see how the theft could have been committed by a man as bold as this fellow. Now we must concentrate all our efforts to running down the invited guests and learning just where they were that evening. All of you will have to get on this job and hustle it. We know that the Burglar did present an invitation-card with a name on it."

The detectives went their respective ways and then Detective Mallory deigned to receive representatives of the press, among them Hutchinson Hatch. Hatch was worried. He knew a whole lot of things, but they didn't do him any good. He felt that he could print nothing as it stood, yet he would not tell the police, because that would give it to everyone else, and he had a picture of how the Supreme Intelligence would tangle it if he got hold of it.

"Well, boys," said Detective Mallory smilingly, when the press filed in, "there's nothing to say. Frankly, I will tell you that we have not been able to learn anything— at least anything that can be given out. You know, of course, about the finding of the two automobiles that figured in the case, and the blood-stained cushion?"

The press nodded collectively.

"Well, that's all there is yet. My men are still at work, but I'm a little afraid the gold plate will never be found. It has probably been melted up. The cleverness of the thieves you can judge for yourself by the manner in which they handled the automobiles."

And yet Hatch was not surprised when, late that night, Police Headquarters made known the latest sensation. This was a bulletin, based on a telephone message from Stuyvesant Randolph to the effect that the gold plate had been returned by express to Seven Oaks. This mystified the police beyond

description; but official mystification was as nothing to Hatch's state of mind. He knew of the scene in Dick Herbert's room and remembered Mr. Randolph's threat.

"Then Dick did have the plate," he told himself.

WHOLE FLOCKS of detectives, reporters, and newspaper artists appeared at Seven Oaks early next morning. It had been too late to press an investigation the night before. The newspapers had only time telephonically to confirm the return of the plate. Now the investigators unanimously voiced one sentiment: "Show us!"

Hatch arrived in the party headed by Detective Mallory, with Downey and Cunningham trailing. Blanton was off somewhere with his little list, presumably still at it. Mr. Randolph had not come down to breakfast when the investigators arrived, but had given his servant permission to exhibit the plate, the wrappings in which it had come, and the string wherewith it had been tied.

The plate arrived in a heavy paper-board box, covered twice over with a plain piece of stiff brown paper, which had no markings save the address and the "paid" stamp of the express company. Detective Mallory devoted himself first to the address. It was:

*Mr. Stuyvesant Randolph,
"Seven Oaks," via Merton.*

In the upper left-hand corner were scribbled the words:
*From John Smith,
State Street, Watertown.*

Detectives Mallory, Downey, and Cunningham studied the handwriting on the paper minutely.

"It's a man's," said Detective Downey.

"It's a woman's," said Detective Cunningham.

"It's a child's," said Detective Mallory.

"Whatever it is, it is disguised," said Hatch.

He was inclined to agree with Detective Cunningham that it was a woman's purposely altered, and in that event— Great

Cæsar! There came that flock of seven-column heads again! And he couldn't open the bottle!

The simple story of the arrival of the gold plate at Seven Oaks was told thrillingly by the servant.

"It was eight o'clock last night," he said. "I was standing in the hall here. Mr. and Mrs. Randolph were still at the dinner table. They dined alone. Suddenly I heard the sound of wagon-wheels on the granolithic road in front of the house. I listened intently. Yes, it was wagon-wheels."

The detectives exchanged significant glances.

"I heard the wagon stop," the servant went on in an awed tone. "Still I listened. Then came the sound of footsteps on the walk and then on the steps. I walked slowly along the hall toward the front door. As I did so the bell rang."

"Yes, ting-a-ling-a-ling, we know. Go on," Hatch interrupted impatiently.

"I opened the door," the servant continued. "A man stood there with a package. He was a burly fellow. 'Mr. Randolph live here?' he asked gruffly. 'Yes,' I said. 'Here's a package for him,' said the man. 'Sign here.' I took the package and signed a book he gave me, and— and— "

"In other words," Hatch interrupted again, "an expressman brought the package here, you signed for it, and he went away?"

The servant stared at him haughtily.

"Yes, that's it," he said coldly.

A few minutes later Mr. Randolph in person appeared. He glanced at Hatch with a little surprise in his manner, nodded curtly, then turned to the detectives.

He could not add to the information the servant had given. His plate had been returned, prepaid. The matter was at an end so far as he was concerned. There seemed to be no need of further investigation.

"How about the jewelry that was stolen from your other guests?" demanded Detective Mallory.

"Of course, there's that," said Mr. Randolph. "It had passed

out of my mind."

"Instead of being at an end this case has just begun," the detective declared emphatically.

Mr. Randolph seemed to have no further interest in the matter. He started out, then turned back at the door, and made a slight motion to Hatch which the reporter readily understood. As a result Hatch and Mr. Randolph were closeted together in a small room across the hall a few minutes later.

"May I ask your occupation, Mr. Hatch?" inquired Mr. Randolph.

"I'm a reporter," was the reply.

"A reporter?" Mr. Randolph seemed surprised. "Of course, when I saw you in Mr. Herbert's rooms," he went on after a little pause, "I met you only as his friend. You saw what happened there. Now, may I ask you what you intend to publish about this affair?"

Hatch considered the question a moment. There seemed to be no objection to telling.

"I can't publish anything until I know everything, or until the police act," he confessed frankly. "I had been talking to Dick Herbert in a general way about this case when you arrived yesterday. I knew several things, or thought I did, that the police do not even suspect. But, of course, I can print only just what the police know and say."

"I'm glad of that— very glad of it," said Mr. Randolph. "It seems to have been a freak of some sort on Mr. Herbert's part, and, candidly, I can't understand it. Of course he returned the plate, as I knew he would."

"Do you really believe he is the man who came here as the Burglar?" asked Hatch curiously.

"I should not have done what you saw me do if I had not been absolutely certain," Mr. Randolph explained. "One of the things, particularly, that was called to my attention— I don't know that you know of it— is the fact that the Burglar had a cleft in his chin. You know, of course, that Mr. Herbert has such a

cleft. Then there is the invitation-card with his name. Everything together makes it conclusive."

Mr. Randolph and the reporter shook hands. Three hours later the press and police had uncovered the Watertown end of the mystery as to how the express package had been sent. It was explained by the driver of an express wagon there and absorbed by greedily listening ears.

"The boss told me to call at No. 410 State Street and get a bundle," the driver explained. "I think somebody telephoned to him to send the wagon. I went up there yesterday morning. It's a small house, back a couple of hundred feet from the street, and has a stone fence around it. I opened the gate, went in, and rang the bell.

"No one answered the first ring, and I rang again. Still nobody answered and I tried the door. It was locked. I walked around the house, thinking there might be somebody in the back, but it was all locked up. I figured as how the folks that had telephoned for me wasn't in, and started out to my wagon, intending to stop by later.

"Just as I got to the gate, going out, I saw a package set down inside, hidden from the street behind the stone fence, with a dollar bill on it. I just naturally looked at it. It was the package directed to Mr. Randolph. I reasoned as how the folks who 'phoned had to go out and left the package, so I took it along. I made out a receipt to John Smith, the name that was in the corner, and pinned it to a post, took the package and the money and went along. That's all."

"You don't know if the package was there when you went in?" he was asked.

"I dunno. I didn't look. I couldn't help but see it when I came out, so I took it."

Then the investigators sought out "the boss."

"Did the person who 'phoned give you a name?" inquired Detective Mallory.

"No, I didn't ask for one."

"Was it a man or a woman talking?"

"A man," was the unhesitating reply. "He had a deep, heavy voice."

The investigators trailed away, dismally despondent, toward No. 410 State Street. It was unoccupied; inquiry showed that it had been unoccupied for months. The Supreme Intelligence picked the lock and the investigators walked in, craning their necks. They expected, at the least, to find a thieves' rendezvous. There was nothing but dirt, and dust, and grime. Then the investigators returned to the city. They had found only that the gold plate had been returned, and they knew that when they started.

Hatch went home and sat down with his head in his hands to add up all he didn't know about the affair. It was surprising how much there was of it.

"Dick Herbert either did or didn't go to the ball," he soliloquised. "Something happened to him that evening. He either did or didn't steal the gold plate, and every circumstance indicates that he did— which, of course, he didn't. Dorothy Meredith either was or was not at the ball. The maid's statement shows that she was, yet no one there recognised her — which indicates that she wasn't. She either did or didn't run away with somebody in an automobile. Anyhow, something happened to her, because she's missing. The gold plate is stolen, and the gold plate is back. I know that, thank Heaven! And now, knowing more about this affair than any other single individual, I don't know anything."

Part 2. The Girl and the Plate

LOW-BENT over the steering-wheel, the Burglar sent the automobile scuttling breathlessly along the flat road away from Seven Oaks. At the first shot he crouched down in the seat, dragging the Girl with him; at the second, he winced a little and clenched his teeth tightly. The car's headlights cut a dazzling

pathway through the shadows, and trees flitted by as a solid wall. The shouts of pursuers were left behind, and still the Girl clung to his arm.

"Don't do that," he commanded abruptly. "You'll make me smash into something."

"Why, Dick, they shot at us!" she protested indignantly.

The Burglar glanced at her, and, when he turned his eyes to the smooth road again, there was a flicker of a smile about the set lips.

"Yes, I had some such impression myself," he acquiesced grimly.

"Why, they might have killed us!" the Girl went on.

"It is just barely possible that they had some such absurd idea when they shot," replied the Burglar. "Guess you never got caught in a pickle like this before?"

"I certainly never did!" replied the Girl emphatically.

The whirl and grind of their car drowned other sounds— sounds from behind— but from time to time the Burglar looked back, and from time to time he let out a new notch in the speed-regulator. Already the pace was terrific, and the Girl bounced up and down beside him at each trivial irregularity in the road, while she clung frantically to the seat.

"Is it necessary to go so awfully fast?" she gasped at last.

The wind was beating on her face, her mask blew this way and that; the beribboned sombrero clung frantically to a fast-failing strand of ruddy hair. She clutched at the hat and saved it, but her hair tumbled down about her shoulders, a mass of gold, and floated out behind.

"Oh," she chattered, "I can't keep my hat on!"

The Burglar took another quick look behind, then his foot went out against the speed-regulator and the car fairly leaped with suddenly increased impetus. The regulator was in the last notch now, and the car was one that had raced at Ormond Beach.

"Oh, dear!" exclaimed the Girl again. "Can't you go a little

slower?"

"Look behind," directed the Burglar tersely.

She glanced back and gave a little cry. Two giant eyes stared at her from a few hundred yards away as another car swooped along in pursuit, and behind this ominously glittering pair was still another.

"They're chasing us, aren't they?"

"They are," replied the Burglar grimly, "but if these tires hold, they haven't got a chance. A breakdown would—" He didn't finish the sentence. There was a sinister note in his voice, but the Girl was still looking back and did not heed it. To her excited imagination it seemed that the giant eyes behind were creeping up, and again she clutched the Burglar's arm.

"Don't do that, I say," he commanded again.

"But, Dick, they mustn't catch us— they mustn't!"

"They won't."

"But if they should—"

"They won't," he repeated.

"It would be perfectly awful!"

"Worse than that."

For a time the Girl silently watched him bending over the wheel, and a singular feeling of security came to her. Then the car swept around a bend in the road, careening perilously, and the glaring eyes were lost. She breathed more freely.

"I never knew you handled an auto so well," she said admiringly.

"I do lots of things people don't know I do," he replied. "Are those lights still there?"

"No, thank goodness!"

The Burglar touched a lever with his left hand and the whirr of the machine became less pronounced. After a moment it began to slow down. The Girl noticed it and looked at him with new apprehension.

"Oh, we're stopping!" she exclaimed.

"I know it."

They ran on for a few hundred feet; then the Burglar set the brake and, after a deal of jolting, the car stopped. He leaped out and ran around behind. As the Girl watched him uneasily there came a sudden crash and the auto trembled a little.

"What is it?" she asked quickly.

"I smashed that tail lamp," he answered. "They can see it, and it's too easy for them to follow."

He stamped on the shattered fragments in the road, then came around to the side to climb in again, extending his left hand to the Girl.

"Quick, give me your hand," he requested.

She did so wonderingly and he pulled himself into the seat beside her with a perceptible effort. The car shivered, then started on again, slowly at first, but gathering speed each moment. The Girl was staring at her companion curiously, anxiously.

"Are you hurt?" she asked at last.

He did not answer at the moment, not until the car had regained its former speed and was hurtling headlong through the night.

"My right arm's out of business," he explained briefly, then: "I got that second bullet in the shoulder."

"Oh, Dick, Dick," she exclaimed, "and you hadn't said anything about it! You need assistance!"

A sudden rush of sympathy caused her to lay her hands again on his left arm. He shook them off roughly with something like anger in his manner.

"Don't do that!" he commanded for the third time. "You'll make me smash hell out of this car."

Startled by the violence of his tone, she recoiled dumbly, and the car swept on. As before, the Burglar looked back from time to time, but the lights did not reappear. For a long time the Girl was silent and finally he glanced at her.

"I beg your pardon," he said humbly. "I didn't mean to speak so sharply, but— but it's true."

"It's really of no consequence," she replied coldly. "I am sorry — very sorry."

"Thank you," he replied.

"Perhaps it might be as well for you to stop the car and let me out," she went on after a moment.

The Burglar either didn't hear or wouldn't heed. The dim lights of a small village rose up before them, then faded away again; a dog barked lonesomely beside the road. The streaming lights of their car revealed a tangle of crossroads just ahead, offering a definite method of shaking off pursuit. Their car swerved widely, and the Burglar's attention was centred on the road ahead.

"Does your arm pain you?" asked the Girl at last timidly.

"No," he replied shortly. "It's a sort of numbness. I'm afraid I'm losing blood, though."

"Hadn't we better go back to the village and see a doctor?"

"Not this evening," he responded promptly in a tone which she did not understand. "I'll stop somewhere soon and bind it up."

At last, when the village was well behind, the car came to a dark little road which wandered off aimlessly through a wood, and the Burglar slowed down to turn into it. Once in the shelter of the overhanging branches they proceeded slowly for a hundred yards or more, finally coming to a standstill.

"We must do it here," he declared.

He leaped from the car, stumbled and fell. In an instant the Girl was beside him. The reflected light from the auto showed her dimly that he was trying to rise, showed her the pallor of his face where the chin below the mask was visible.

"I'm afraid it's pretty bad," he said weakly. Then he fainted.

The Girl, stooping, raised his head to her lap and pressed her lips to his feverishly, time after time.

"Dick, Dick!" she sobbed, and tears fell upon the Burglar's sinister mask.

WHEN THE Burglar awoke to consciousness he was as near heaven as any mere man ever dares expect to be. He was comfortable— quite comfortable— wrapped in a delicious, languorous lassitude which forbade him opening his eyes to realisation. A woman's hand lay on his forehead, caressingly, and dimly he knew that another hand cuddled cosily in one of his own. He lay still, trying to remember, before he opened his eyes. Someone beside him breathed softly, and he listened, as if to music.

Gradually the need of action— just what action and to what purpose did not occur to him — impressed itself on his mind. He raised the disengaged hand to his face and touched the mask, which had been pushed back on his forehead. Then he recalled the ball, the shot, the chase, the hiding in the woods. He opened his eyes with a start. Utter darkness lay about him— for a moment he was not certain whether it was the darkness of blindness or of night.

"Dick, are you awake?" asked the Girl softly. He knew the voice and was content.

"Yes," he answered languidly.

He closed his eyes again and some strange, subtle perfume seemed to envelop him. He waited. Warm lips were pressed to his own, thrilling him strangely, and the Girl rested a soft cheek against his.

"We have been very foolish, Dick," she said, sweetly chiding, after a moment. "It was all my fault for letting you expose yourself to danger, but I didn't dream of such a thing as this happening. I shall never forgive myself, because — "

"But— " he began protestingly.

"Not another word about it now," she hurried on. "We must go very soon. How do you feel?"

"I'm all right, or will be in a minute," he responded, and he made as if to rise. "Where is the car?"

"Right here. I extinguished the lights and managed to stop the engine for fear those horrid people who were after us might

notice."

"Good girl!"

"When you jumped out and fainted I jumped out, too. I'm afraid I was not very clever, but I managed to bind your arm. I took my handkerchief and pressed it against the wound after ripping your coat, then I bound it there. It stopped the flow of blood, but, Dick, dear, you must have medical attention just as soon as possible."

The Burglar moved his shoulder a little and winced.

"Just as soon as I did that," the Girl went on, "I made you comfortable here on a cushion from the car."

"Good girl!" he said again.

"Then I sat down to wait until you got better. I had no stimulant or anything, and I didn't dare to leave you, so— so I just waited," she ended with a weary little sigh.

"How long was I knocked out?" he queried.

"I don't know; half an hour, perhaps."

"The bag is all right, I suppose?"

"The bag?"

"The bag with the stuff— the one I threw in the car when we started?"

"Oh, yes, I suppose so! Really, I hadn't thought of it."

"Hadn't thought of it?" repeated the Burglar, and there was a trace of astonishment in his voice. "By George, you're a wonder!" he added.

He started to get on his feet, then dropped back weakly.

"Say, girlie," he requested, "see if you can find the bag in the car there and hand it out. Let's take a look."

"Where is it?"

"Somewhere in front. I felt it at my feet when I jumped out."

There was a rustle of skirts in the darkness, and after a moment a faint muffled clank as of one heavy metal striking dully against another.

"Goodness!" exclaimed the Girl. "It's heavy enough. What's in it?"

"What's in it?" repeated the Burglar, and he chuckled. "A fortune, nearly. It's worth being punctured for. Let me see."

In the darkness he took the bag from her hands and fumbled with it a moment. She heard the metallic sound again and then several heavy objects were poured out on the ground.

"A good fourteen pounds of pure gold," commented the Burglar. "By George, I haven't but one match, but we'll see what it's like."

The match was struck, sputtered for a moment, then flamed up, and the Girl, standing, looked down upon the Burglar on his knees beside a heap of gold plate. She stared at the glittering mass as if fascinated, and her eyes opened wide.

"Why, Dick, what is that?" she asked.

"It's Randolph's plate," responded the Burglar complacently. "I don't know how much it's worth, but it must be several thousands, on dead weight."

"What are you doing with it?"

"What am I doing with it?" repeated the Burglar. He was about to look up when the match burned his finger and he dropped it. "That's a silly question."

"But how came it in your possession?" the Girl insisted.

"I acquired it by the simple act of— of dropping it into a bag and bringing it along. That and you in the same evening— " He stretched out a hand toward her, but she was not there. He chuckled a little as he turned and picked up eleven plates, one by one, and replaced them in the bag.

"Nine— ten— eleven," he counted. "What luck did you have?"

"Dick Herbert, explain to me, please, what you are doing with that gold plate?" There was an imperative command in the voice.

The Burglar paused and rubbed his chin thoughtfully.

"Oh, I'm taking it to have it fixed!" he responded lightly.

"Fixed? Taking it this way at this time of the night?"

"Sure," and he laughed pleasantly.

"You mean you— you— you stole it?" The words came with an effort.

"Well, I'd hardly call it that," remarked the Burglar. "That's a harsh word. Still, it's in my possession; it wasn't given to me, and I didn't buy it. You may draw your own conclusions."

The bag lay beside him and his left hand caressed it idly, lovingly. For a long time there was silence.

"What luck did you have?" he asked again.

There was a startled gasp, a gurgle and accusing indignation in the Girl's low, tense voice.

"You— you stole it!"

"Well, if you prefer it that way— yes."

The Burglar was staring steadily into the darkness toward that point whence came the voice, but the night was so dense that not a trace of the Girl was visible. He laughed again.

"It seems to me it was lucky I decided to take it at just this time and in these circumstances," he went on tauntingly—"lucky for you, I mean. If I hadn't been there you would have been caught."

Again came the startled gasp.

"What's the matter?" demanded the Burglar sharply, after another silence. "Why don't you say something?"

He was still peering unseeingly into the darkness. The bag of gold plate moved slightly under his hand. He opened his fingers to close them more tightly. It was a mistake. The bag was drawn away; his hand grasped— air.

"Stop that game now!" he commanded angrily. "Where are you?"

He struggled to his feet. His answer was the crackling of a twig to his right. He started in that direction and brought up with a bump against the automobile. He turned, still groping blindly, and embraced a tree with undignified fervour. To his left he heard another slight noise and ran that way. Again he struck an obstacle. Then he began to say things, expressive things, burning things from the depths of an impassioned soul. The treasure had

gone— disappeared into the shadows. The Girl was gone. He called, there was no answer. He drew his revolver fiercely, as if to fire it; then reconsidered and flung it down angrily.

"And I thought I had nerve!" he declared. It was a compliment.

EXTRAVAGANTLY brilliant the sun popped up out of the east — not an unusual occurrence— and stared unblinkingly down upon a country road. There were the usual twittering birds and dew-spangled trees and nodding wild-flowers; also a dust that was shoe-top deep. The dawn air stirred lazily and rustling leaves sent long, sinuous shadows scampering back and forth.

Looking upon it all without enthusiasm or poetic exaltation was a Girl— a pretty Girl— a very pretty Girl. She sat on a stone beside the yellow roadway, a picture of weariness. A rough burlap sack, laden heavily, yet economically as to space, wallowed in the dust beside her. Her hair was tawny gold, and rebellious strands drooped listlessly about her face. A beribboned sombrero lay in her lap, supplementing a certain air of dilapidated bravado, due in part to a short skirt, heavy gloves and boots, a belt with a knife and revolver.

A robin, perched impertinently on a stump across the road, examined her at his leisure. She stared back at Signor Redbreast, and for this recognition he warbled a little song.

"I've a good mind to cry!" exclaimed the Girl suddenly.

Shamed and startled, the robin flew away. A mistiness came into the Girl's blue eyes and lingered there a moment, then her white teeth closed tightly and the glimmer of outraged emotion passed.

"Oh," she sighed again, "I'm so tired and hungry and I just know I'll never get anywhere at all!"

But despite the expressed conviction she arose and straightened up as if to resume her journey, turning to stare down at the bag. It was an unsightly symbol of blasted hopes, man's perfidy, crushed aspirations and— Heaven only knows

what besides.

"I've a good mind to leave you right there," she remarked to the bag spitefully. "Perhaps I might hide it." She considered the question. "No, that wouldn't do. I must take it with me— and— and— Oh, Dick! Dick! What in the world was the matter with you, anyway?"

Then she sat down again and wept. The robin crept back to look and modestly hid behind a leaf. From this coign of vantage he watched her as she again arose and plodded off through the dust with the bag swinging over one shoulder. At last— there is an at last to everything— a small house appeared from behind a clump of trees. The Girl looked with incredulous eyes. It was really a house. Really! A tiny curl of smoke hovered over the chimney.

"Well, thank goodness, I'm somewhere, anyhow," she declared with her first show of enthusiasm. "I can get a cup of coffee or something."

She covered the next fifty yards with a new spring in her leaden heels and with a new and firmer grip on the precious bag. Then — she stopped.

"Gracious!" and perplexed lines suddenly wrinkled her brow. "If I should go in there with a pistol and a knife they'll think I was a brigand— or— or a thief, and I suppose I am," she added as she stopped and rested the bag on the ground. "At least I have stolen goods in my possession. Now, what shall I say if they ask questions? What am I? They wouldn't believe me if I told them really. Short skirt, boots and gloves: I know! I'm a bicyclist. My wheel broke down, and— "

Whereupon she gingerly removed the revolver from her belt and flung it into the underbrush — not at all in the direction she had intended— and the knife followed to keep it company. Having relieved herself of these sinister things, she straightened her hat, pushed back the rebellious hair, yanked at her skirt, and walked bravely up to the little house.

An Angel lived there— an Angel in a dizzily beflowered

wrapper and a crabbed exterior. She listened to a rapidly constructed and wholly inconsistent story of a bicycle accident, which ended with a plea for a cup of coffee. Silently she proceeded to prepare it. After the pot was bubbling cheerfully and eggs had been put on and biscuits thrust into a stove to be warmed over, the Angel sat down at the table opposite the Girl.

"Book agent?" she asked.

"Oh, no!" replied the Girl.

"Sewing-machines?"

"No."

There was a pause as the Angel settled and poured a cup of coffee.

"Make to order, I s'pose?"

"No," the Girl replied uncertainly.

"What do you sell?"

"Nothing, I— I— " She stopped.

"What you got in the bag?" the Angel persisted.

"Some— some— just some— stuff," stammered the Girl, and her face suddenly flushed crimson.

"What kind of stuff?"

The Girl looked into the frankly inquisitive eyes and was overwhelmed by a sense of her own helplessness. Tears started, and one pearly drop ran down her perfect nose and splashed in the coffee. That was the last straw. She leaned forward suddenly with her head on her arms and wept.

"Please, please don't ask questions!" she pleaded. "I'm a poor, foolish, helpless, misguided, disillusioned woman!"

"Yes'm," said the Angel. She took up the eggs, then came over and put a kindly arm about the Girl's shoulders. "There, there!" she said soothingly. "Don't take on like that! Drink some coffee, and eat a bite, and you'll feel better!"

"I have had no sleep at all and no food since yesterday, and I've walked miles and miles and miles," the Girl rushed on feverishly. "It's all because— because— " She stopped suddenly.

"Eat something," commanded the Angel.

The Girl obeyed. The coffee was weak and muddy and delightful; the biscuits were yellow and lumpy and delicious; the eggs were eggs. The Angel sat opposite and watched the Girl as she ate.

"Husband beat you?" she demanded suddenly.

The Girl blushed and nearly choked on a biscuit.

"No," she hastened to say. "I have no husband."

"Well, there ain't no serious trouble in this world till you marry a man that beats you," said the Angel judicially. It was the final word.

The Girl didn't answer, and, in view of the fact that she had sufficient data at hand to argue the point, this repression required heroism. Perhaps she will never get credit for it. She finished the breakfast in silence and leaned back with some measure of returning content in her soul.

"In a hurry?" asked the Angel.

"No. I have no place to go. What is the nearest village or town?"

"Watertown, but you'd better stay and rest a while. You look all tuckered out."

"Oh, thank you so much," said the Girl gratefully. "But it would be so much trouble for— "

The Angel picked up the burlap bag, shook it inquiringly, then started toward the short stairs leading up.

"Please, please!" exclaimed the Girl suddenly. "I— I— let me have that, please!"

The Angel relinquished the bag without a word. The Girl took it, tremblingly, then, suddenly dropping it, clasped the Angel in her arms and placed upon her unresponsive lips a kiss for which a mere man would have endangered his immortal soul. The Angel wiped her mouth with the back of her hand and went on up the stairs with the Girl following.

For a time the Girl lay, with wet eyes, on a clean little bed, thinking. Humiliation, exhaustion, man's perfidy, disillusionment, and the kindness of an utter stranger all occupied her until she fell

asleep. Then she was chased by a policeman with automobile lights for eyes, and there was a parade of hard-boiled eggs and yellow, lumpy biscuits.

When she awoke the room was quite dark. She sat up a little bewildered at first; then she remembered. After a moment she heard the voice of the Angel, below. It rippled on querulously; then she heard the gruff voice of a man.

"Diamond rings?"

The Girl sat up in bed and listened intently. Involuntarily her hands were clasped together. Her rings were still safe. The Angel's voice went on for a moment again.

"Something in a bag?" inquired the man.

Again the Angel spoke.

Terror seized upon the Girl; imagination ran riot, and she rose from the bed, trembling. She groped about the dark room noiselessly. Every shadow lent her new fears. Then from below came the sound of heavy footsteps. She listened fearfully. They came on toward the stairs, then paused. A match was struck and the step sounded on the stairs.

After a moment there was a knock at the door, a pause, then another knock. Finally the door was pushed open and a huge figure— the figure of a man— appeared, sheltering a candle with one hand. He peered about the room as if perplexed.

"Ain't nobody up here," he called gruffly down the stairs.

There was a sound of hurrying feet and the Angel entered, her face distorted by the flickering candlelight.

"For the land's sakes!" she exclaimed.

"Went away without even saying thank you," grumbled the man. He crossed the room and closed a window. "You ain't got no better sense than a chicken," he told the Angel. "Take in anybody that comes."

IF WILLIE'S little brother hadn't had a pain in his tummy this story might have gone by other and devious ways to a different conclusion. But fortunately he did have, so it happened that at

precisely 8.47 o'clock of a warm evening Willie was racing madly along a side street of Watertown, drug-store-bound, when he came face to face with a Girl— a pretty Girl— a very pretty Girl. She was carrying a bag that clanked a little at each step.

"Oh, little boy!" she called.

"Hunh?" and Willie stopped so suddenly that he endangered his equilibrium, although that isn't how he would have said it.

"Nice little boy," said the Girl soothingly, and she patted his tousled head while he gnawed a thumb in pained embarrassment. "I'm very tired. I have been walking a great distance. Could you tell me, please, where a lady, unattended, might get a night's lodging somewhere near here?"

"Hunh?" gurgled Willie through the thumb.

Wearily the Girl repeated it all and at its end Willie giggled. It was the most exasperating incident of a long series of exasperating incidents, and the Girl's grip on the bag tightened a little. Willie never knew how nearly he came to being hammered to death with fourteen pounds of solid gold.

"Well?" inquired the Girl at last.

"Dunno," said Willie. "Jimmy's got the stomach-ache," he added irrelevantly.

"Can't you think of a hotel or boarding-house near by?" the Girl insisted.

"Dunno," replied Willie. "I'm going to the drug store for a pair o' gorrick."

The Girl bit her lip, and that act probably saved Willie from the dire consequences of his unconscious levity, for after a moment the Girl laughed aloud.

"Where is the drug store?" she asked.

"Round the corner. I'm going."

"I'll go along, too, if you don't mind," the Girl said, and she turned and walked beside him. Perhaps the drug clerk would be able to illuminate the situation.

"I swallyed a penny oncst," Willie confided suddenly.

"Too bad!" commented the Girl.

"Unh unnh," Willie denied emphatically. "'Cause when I cried, Paw gimme a quarter." He was silent a moment, then: "If I'd 'a'swallyed that, I reckon he'd a gimme a dollar. Gee!"

This is the optimism that makes the world go round. The philosophy took possession of the Girl and cheered her. When she entered the drug store she walked with a lighter step and there was a trace of a smile about her pretty mouth. A clerk, the only attendant, came forward.

"I want a pair o' gorrick," Willie announced.

The Girl smiled, and the clerk, paying no attention to the boy, went toward her.

"Better attend to him first," she suggested. "It seems urgent."

The clerk turned to Willie.

"Paregoric?" he inquired. "How much?"

"About a quart, I reckon," replied the boy. "Is that enough?"

"Quite enough," commented the clerk. He disappeared behind the prescription screen and returned after a moment with a small phial. The boy took it, handed over a coin, and went out, whistling. The Girl looked after him with a little longing in her eyes.

"Now, madam?" inquired the clerk suavely.

"I only want some information," she replied. "I was out on my bicycle"— she gulped a little— "when it broke down, and I'll have to remain here in town over night, I'm afraid. Can you direct me to a quiet hotel or boarding-house where I might stay?"

"Certainly," replied the clerk briskly. "The Stratford, just a block up this street. Explain the circumstances, and it will be all right, I'm sure."

The Girl smiled at him again and cheerfully went her way. That small boy had been a leaven to her drooping spirits. She found the Stratford without difficulty and told the usual bicycle lie, with a natural growth of detail and a burning sense of shame. She registered as Elizabeth Carlton and was shown to a

modest little room.

Her first act was to hide the gold plate in the closet; her second was to take it out and hide it under the bed. Then she sat down on a couch to think. For an hour or more she considered the situation in all its hideous details, planning her desolate future— women like to plan desolate futures— then her eye chanced to fall upon an afternoon paper, which, with glaring headlines, announced the theft of the Randolph gold plate. She read it. It told, with startling detail, things that had and had not happened in connection therewith.

This comprehended in all its horror, she promptly arose and hid the bag between the mattress and the springs. Soon after she extinguished the light and retired with little shivers running up and down all over her. She snuggled her head down under the cover. She didn't sleep much — she was still thinking— but when she arose next morning her mind was made up.

First she placed the eleven gold plates in a heavy card-board box, then she bound it securely with brown paper and twine and addressed it: "Stuyvesant Randolph, Seven Oaks, via Merton." She had sent express packages before and knew how to proceed, therefore when the necessity of writing a name in the upper left-hand corner appeared— the sender— she wrote in a bold, desperate hand: "John Smith, Watertown."

When this was all done to her satisfaction, she tucked the package under one arm, tried to look as if it weren't heavy, and sauntered downstairs with outward self-possession and inward apprehension. She faced the clerk cordially, while a singularly distracting smile curled her lips.

"My bill, please?" she asked.

"Two dollars, madam," he responded gallantly.

"I don't happen to have any money with me," she explained charmingly. "Of course, I had expected to go back on my wheel, but, since it is broken, perhaps you would be willing to take this until I return to the city and can mail a check?"

She drew a diamond ring from an aristocratic finger and

offered it to the clerk. He blushed furiously, and she reproved him for it with a cold stare.

"It's quite irregular," he explained, "but, of course, in the circumstances, it will be all right. It is not necessary for us to keep the ring at all, if you will give us your city address."

"I prefer that you keep it," she insisted firmly, "for, besides, I shall have to ask you to let me have fare back to the city— a couple of dollars? Of course it will be all right?"

It was half an hour before the clerk fully awoke. He had given the Girl two real dollars and held her ring clasped firmly in one hand. She was gone. She might just as well have taken the hotel along with her so far as any objection from that clerk would have been concerned.

Once out of the hotel the Girl hurried on.

"Thank goodness, that's over," she exclaimed.

For several blocks she walked on. Finally her eye was attracted by a "To Let" sign on a small house— it was No. 410 State Street. She walked in through a gate cut in the solid wall of stone and strolled up to the house. Here she wandered about for a time, incidentally tearing off the "To Let" sign. Then she came down the path toward the street again. Just inside the stone fence she left her express package, after scribbling the name of the street on it with a pencil. A dollar bill lay on top. She hurried out and along a block or more to a small grocery.

"Will you please 'phone to the express company and have them send a wagon to No. 410 State Street for a package?" she asked sweetly of a heavy-voiced grocer.

"Certainly, ma'am," he responded with alacrity.

She paused until he had done as she requested, then dropped into a restaurant for a cup of coffee. She lingered there for a long time, and then went out to spend a greater part of the day wandering up and down State Street. At last an express wagon drove up, the driver went in and returned after a little while with the package.

"And, thank goodness, that's off my hands!" sighed the Girl.

"Now I'm going home."

LATE THAT EVENING, Saturday, Miss Dollie Meredith returned to the home of the Greytons and was clasped to the motherly bosom of Mrs. Greyton, where she wept unreservedly.

IT WAS late Sunday afternoon. Hutchinson Hatch did not run lightly up the steps of the Greyton home and toss his cigar away as he rang the bell. He did go up the steps, but it was reluctantly, dragging one foot after the other, this being an indication rather of his mental condition than of physical weariness. He did not throw away his cigar as he rang the bell because he wasn't smoking— but he did ring the bell. The maid whom he had seen on his previous visit opened the door.

"Is Mrs. Greyton in?" he asked with a nod of recognition.

"No, sir."

"Mr. Greyton?"

"No, sir."

"Did Mr. Meredith arrive from Baltimore?"

"Yes, sir. Last midnight."

"Ah! Is he in?"

"No, sir."

The reporter's disappointment showed clearly in his face.

"I don't suppose you've heard anything further from Miss Meredith?" he ventured hopelessly.

"She's upstairs, sir."

Anyone who has ever stepped on a tack knows just how Hatch felt. He didn't stand on the order of being invited in— he went in. Being in, he extracted a plain calling-card from his pocketbook with twitching fingers and handed it to the waiting maid.

"When did she return?" he asked.

"Last night, about nine, sir."

"Where has she been?"

"I don't know, sir."

"Kindly hand her my card and explain to her that it is imperative that I see her for a few minutes," the reporter went on. "Impress upon her the absolute necessity of this. By the way, I suppose you know where I came from, eh?"

"Police headquarters, yes, sir."

Hatch tried to look like a detective, but a gleam of intelligence in his face almost betrayed him.

"You might intimate as much to Miss Meredith," he instructed the maid calmly.

The maid disappeared. Hatch went in and sat down in the reception-room, and said "Whew!" several times.

"The gold plate returned to Randolph last night by express," he mused, "and she returned also, last night. Now what does that mean?"

After a minute or so the maid reappeared to state that Miss Meredith would see him. Hatch received the message gravely and beckoned mysteriously as he sought for a bill in his pocketbook.

"Do you have any idea where Miss Meredith was?"

"No, sir. She didn't even tell Mrs. Greyton or her father."

"What was her appearance?"

"She seemed very tired, sir, and hungry. She still wore the masked ball costume."

The bill changed hands and Hatch was left alone again. There was a long wait, then a rustle of skirts, a light step, and Miss Dollie Meredith entered.

She was nervous, it is true, and pallid, but there was a suggestion of defiance as well as determination on her pretty mouth. Hatch stared at her in frank admiration for a moment, then, with an effort, proceeded to business.

"I presume, Miss Meredith," he said solemnly, "that the maid informed you of my identity?"

"Yes," replied Dollie weakly. "She said you were a detective."

"Ah!" exclaimed the reporter meaningly, "then we understand each other. Now, Miss Meredith, will you tell me,

please, just where you have been?"

"No."

The answer was so prompt and so emphatic that Hatch was a little disconcerted. He cleared his throat and started over again.

"Will you inform me, then, in the interest of justice, where you were on the evening of the Randolph ball?" An ominous threat lay behind the words, Hatch hoped she believed.

"I will not."

"Why did you disappear?"

"I will not tell you."

Hatch paused to readjust himself. He was going at things backward. When next he spoke his tone had lost the official tang — he talked like a human being.

"May I ask if you happen to know Richard Herbert?"

The pallor of the girl's face was relieved by a delicious sweep of colour.

"I will not tell you," she answered.

"And if I say that Mr. Herbert happens to be a friend of mine?"

"Well, you ought to be ashamed of yourself!"

Two distracting blue eyes were staring him out of countenance; two scarlet lips were drawn tightly together in reproof of a man who boasted such a friendship; two cheeks flamed with indignation that he should have mentioned the name. Hatch floundered for a moment, then cleared his throat and took a fresh start.

"Will you deny that you saw Richard Herbert on the evening of the masked ball?"

"I will not."

"Will you admit that you saw him?"

"I will not."

"Do you know that he was wounded?"

"Certainly."

Now, Hatch had always held a vague theory that the easiest

way to make a secret known was to intrust it to a woman. At this point he revised his draw, threw his hand in the pack, and asked for a new deal.

"Miss Meredith," he said soothingly after a pause, "will you admit or deny that you ever heard of the Randolph robbery?"

"I will not," she began, then: "Certainly I know of it."

"You know that a man and a woman are accused of and sought for the theft?"

"Yes, I know that."

"You will admit that you know the man was in Burglar's garb, and that the woman was dressed in a Western costume?"

"The newspapers say that, yes," she replied sweetly.

"You know, too, that Richard Herbert went to that ball in Burglar's garb and that you went there dressed as a Western girl?" The reporter's tone was strictly professional now.

Dollie stared into the stern face of her interrogator and her courage oozed away. The colour left her face and she wept violently.

"I beg your pardon," Hatch expostulated. "I beg your pardon. I didn't mean it just that way, but— —"

He stopped helplessly and stared at this wonderful woman with the red hair. Of all things in the world tears were quite the most disconcerting.

"I beg your pardon," he repeated awkwardly.

Dollie looked up with tear-stained, pleading eyes, then arose and placed both her hands on Hatch's arm. It was a pitiful, helpless sort of a gesture; Hatch shuddered with sheer delight.

"I don't know how you found out about it," she said tremulously, "but, if you've come to arrest me, I'm ready to go with you."

"Arrest you?" gasped the reporter.

"Certainly. I'll go and be locked up. That's what they do, isn't it?" she questioned innocently.

The reporter stared.

"I wouldn't arrest you for a million dollars!" he stammered in

dire confusion. "It wasn't quite that. It was— "

And five minutes later Hutchinson Hatch found himself wandering aimlessly up and down the sidewalk.

DICK HERBERT lay stretched lazily on a couch in his room with hands pressed to his eyes. He had just read the Sunday newspapers announcing the mysterious return of the Randolph plate, and naturally he had a headache. Somewhere in a remote recess of his brain mental pyrotechnics were at play; a sort of intellectual pinwheel spouted senseless ideas and suggestions of senseless ideas. The late afternoon shaded off into twilight, twilight into dusk, dusk into darkness, and still he lay motionless.

After a while, from below, he heard the tinkle of a bell and Blair entered with light tread:

"Beg pardon, sir, are you asleep?"

"Who is it, Blair?"

"Mr. Hatch, sir."

"Let him come up."

Dick arose, snapped on the electric lights, and stood blinking in the sudden glare. When Hatch entered they faced each other silently for a moment. There was that in the reporter's eyes that interested Dick immeasurably; there was that in Dick's eyes that Hatch was trying vainly to fathom. Dick relieved a certain vague tension by extending his left hand. Hatch shook it cordially.

"Well?" Dick inquired.

Hatch dropped into a chair and twirled his hat.

"Heard the news?" he asked.

"The return of the gold plate, yes," and Dick passed a hand across his fevered brow. "It makes me dizzy."

"Heard anything from Miss Meredith?"

"No. Why?"

"She returned to the Greytons last night."

"Returned to the— " and Dick started up suddenly. "Well, there's no reason why she shouldn't have," he added. "Do you

happen to know where she was?"

The reporter shook his head.

"I don't know anything," he said wearily, "except— — " He paused.

Dick paced back and forth across the room several times with one hand pressed to his forehead. Suddenly he turned on his visitor.

"Except what?" he demanded.

"Except that Miss Meredith, by action and word, has convinced me that she either had a hand in the disappearance of the Randolph plate or else knows who was the cause of its disappearance."

Dick glared at him savagely.

"You know she didn't take the plate?" he demanded.

"Certainly," replied the reporter. "That's what makes it all the more astonishing. I talked to her this afternoon, and when I finished she seemed to think I had come to arrest her, and she wanted to go to jail. I nearly fainted."

Dick glared incredulously, then resumed his nervous pacing. Suddenly he stopped.

"Did she mention my name?"

"I mentioned it. She wouldn't admit even that she knew you."

There was a pause.

"I don't blame her," Dick remarked enigmatically. "She must think me a cad."

Another pause.

"Well, what about it all, anyhow?" Dick went on finally. "The plate has been returned, therefore the matter is at an end."

"Now look here, Dick," said Hatch. "I want to say something, and don't go crazy, please, until I finish. I know an awful lot about this affair— things the police never will know. I haven't printed anything much for obvious reasons."

Dick looked at him apprehensively.

"Go on," he urged.

"I could print things I know," the reporter resumed; "swear out a warrant for you in connection with the gold plate affair and have you arrested and convicted on your own statements, supplemented by those of Miss Meredith. Yet, remember, please, neither your name nor hers has been mentioned as yet."

Dick took it calmly; he only stared.

"Do you believe that I stole the plate?" he asked.

"Certainly I do not," replied Hatch, "but I can prove that you did; prove it to the satisfaction of any jury in the world, and no denial of yours would have any effect."

"Well?" asked Dick, after a moment.

"Further, I can, on information in my possession, swear out a warrant for Miss Meredith, prove she was in the automobile, and convict her as your accomplice. Now that's a silly state of affairs, isn't it?"

"But, man, you can't believe that she had anything to do with it! She's— she's not that kind."

"I could take oath that she didn't have anything to do with it, but all the same I can prove that she did," replied Hatch. "Now what I am getting at is this: if the police should happen to find out what I know they would send you up— both of you."

"Well, you are decent about it, old man, and I appreciate it," said Dick warmly. "But what can we do?"

"It behoves us— Miss Meredith and you and myself— to get the true facts in the case all together before you get pinched," said the reporter judicially. "Suppose now, just suppose, that we three get together and tell each other the truth for a change, the whole truth, and see what will happen?"

"If I should tell you the truth," said Dick dispassionately, "it would bring everlasting disgrace on Miss Meredith, and I'd be a beast for doing it; if she told you the truth she would unquestionably send me to prison for theft."

"But here— " Hatch expostulated.

"Just a minute!" Dick disappeared into another room, leaving the reporter to chew on what he had, then returned in a little

while, dressed for the street. "Now, Hatch," he said, "I'm going to try to get to Miss Meredith, but I don't believe she'll see me. If she will, I may be able to explain several things that will clear up this affair in your mind, at any rate. If I don't see her— By the way, did her father arrive from Baltimore?"

"Yes."

"Good!" exclaimed Dick. "I'll see him, too— make a show-down of it, and when it's all over I'll let you know what happened."

Hatch went back to his shop and threatened to kick the office-boy into the waste-basket.

At just about that moment Mr. Meredith, in the Greyton home, was reading a card on which appeared the name, "Mr. Richard Hamilton Herbert." Having read it, he snorted his indignation and went into the reception-room. Dick arose to greet him and offered a hand, which was promptly declined.

"I'd like to ask you, Mr. Meredith," Dick began with a certain steely coldness in his manner, "just why you object to my attention to your daughter, Dorothy?"

"You know well enough!" raged the old man.

"It is because of the trouble I had in Harvard with your son, Harry. Well and good, but is that all? Is that to stand forever?"

"You proved then that you were not a gentleman," declared the old man savagely. "You're a puppy, sir."

"If you didn't happen to be the father of the girl I'm in love with I'd poke you in the nose," Dick replied, almost cheerfully. "Where is your son now? Is there no way I can place myself right in your eyes?"

"No!" Mr. Meredith thundered. "An apology would only be a confession of your dishonour!"

Dick was nearly choking, but managed to keep his voice down.

"Does your daughter know anything of that affair?"

"Certainly not."

"Where is your son?"

"None of your business, sir!"

"I don't suppose there's any doubt in your mind of my affection for your daughter?"

"I suppose you do admire her," snapped the old man. "You can't help that, I suppose. No one can," he added naïvely.

"And I suppose you know that she loves me, in spite of your objections?" went on the young man.

"Bah! Bah!"

"And that you are breaking her heart by your mutton-headed objection to me?"

"You— you— " sputtered Mr. Meredith.

Dick was still calm.

"May I see Miss Meredith for a few minutes?" he went on.

"She won't see you, sir," stormed the irate parent. "She told me last night that she would never consent to see you again."

"Will you give me your permission to see her here and now, if she will consent?" Dick insisted steadily.

"She won't see you, I say."

"May I send a card to her?"

"She won't see you, sir," repeated Mr. Meredith doggedly.

Dick stepped out into the hall and beckoned to the maid.

"Please take my card to Miss Meredith," he directed.

The maid accepted the white square, with a little uplifting of her brows, and went up the stairs. Miss Meredith received it languidly, read it, then sat up indignantly.

"Dick Herbert!" she exclaimed incredulously. "How dare he come here? It's the most audacious thing I ever heard of! Certainly I will not see him again in any circumstances." She arose and glared defiantly at the demure maid. "Tell Mr. Herbert," she said emphatically, "tell him— that I'll be right down."

MR. MEREDITH had stamped out of the room angrily, and Dick Herbert was alone when Dollie, in regal indignation, swept in. The general slant of her ruddy head radiated defiance, and a

most depressing chilliness lay in her blue eyes. Her lips formed a scarlet line, and there was a how-dare-you-sir tilt to nose and chin. Dick started up quickly at her appearance.

"Dollie!" he exclaimed eagerly.

"Mr. Herbert," she responded coldly. She sat down primly on the extreme edge of a chair which yawned to embrace her.

"What is it, please?"

Dick was a singularly audacious sort of person, but her manner froze him into sudden austerity. He regarded her steadily for a moment.

"I have come to explain why— "

Miss Dollie Meredith sniffed.

"I have come to explain," he went on, "why I did not meet you at the Randolph masked hall, as we had planned."

"Why you did not meet me?" inquired Dollie coldly, with a little surprised movement of her arched brows. "Why you did not meet me?" she repeated.

"I shall have to ask you to believe that, in the circumstances, it was absolutely impossible," Dick continued, preferring not to notice the singular emphasis of her words. "Something occurred early that evening which— which left me no choice in the matter. I can readily understand your indignation and humiliation at my failure to appear, and I had no way of reaching you that evening or since. News of your return last night only reached me an hour ago. I knew you had disappeared."

Dollie's blue eyes were opened to the widest and her lips parted a little in astonishment. For a moment she sat thus, staring at the young man, then she sank back into her chair with a little gasp.

"May I inquire," she asked, after she recovered her breath, "the cause of this— this levity?"

"Dollie, dear, I am perfectly serious," Dick assured her earnestly. "I am trying to make it plain to you, that's all."

"Why you did not meet me?" Dollie repeated again. "Why you did meet me! And that's— that's what's the matter with

everything!"

Whatever surprise or other emotion Dick might have felt was admirably repressed.

"I thought perhaps there was some mistake somewhere," he said at last. "Now, Dollie, listen to me. No, wait a minute, please! I did not go to the Randolph ball. You did. You eloped from that ball, as you and I had planned, in an automobile, but not with me. You went with some other man— the man who really stole the gold plate."

Dollie opened her mouth to exclaim, then shut it suddenly.

"Now just a moment, please," pleaded Dick. "You spoke to some other man under the impression that you were speaking to me. For a reason which does not appear now, he fell in with your plans. Therefore, you ran away with him— in the automobile which carried the gold plate. What happened after that I cannot even surmise. I only know that you are the mysterious woman who disappeared with the Burglar."

Dollie gasped and nearly choked with her emotions. A flame of scarlet leaped into her face and the glare of the blue eyes was pitiless.

"Mr. Herbert," she said deliberately at last, "I don't know whether you think I am a fool or only a child. I know that no rational human being can accept that as true. I know I left Seven Oaks with you in the auto; I know you are the man who stole the gold plate; I know how you received the shot in your right shoulder; I know how you afterward fainted from loss of blood. I know how I bound up your wound and— and— I know a lot of things else!"

The sudden rush of words left her breathless for an instant. Dick listened quietly. He started to say something— to expostulate— but she got a fresh start and hurried on:

"I recognised you in that silly disguise by the cleft in your chin. I called you Dick and you answered me. I asked if you had received the little casket and you answered yes. I left the ballroom as you directed and climbed into the automobile. I

know that horrid ride we had, and how I took the gold plate in the bag and walked— walked through the night until I was exhausted. I know it all— how I lied and connived, and told silly stories— but I did it all to save you from yourself, and now you dare face me with a denial!"

Dollie suddenly burst into tears. Dick now attempted no further denial. There was no anger in his face— only a deeply troubled expression. He arose and walked over to the window, where he stood staring out.

"I know it all," Dollie repeated gurglingly— "all, except what possible idea you had in stealing the miserable, wretched old plate, anyway!" There was a pause and Dollie peered through teary fingers. "How— how long," she asked, "have you been a— a— a— kleptomaniac?"

Dick shrugged his sturdy shoulders a little impatiently.

"Did your father ever happen to tell you why he objects to my attentions to you?" he asked.

"No, but I know now." And there was a new burst of tears. "It's because— because you are a— a— you take things."

"You will not believe what I tell you?"

"How can I when I helped you run away with the horrid stuff?"

"If I pledge you my word of honour that I told you the truth?"

"I can't believe it, I can't!" wailed Dollie desolately. "No one could believe it. I never suspected — never dreamed — of the possibility of such a thing even when you lay wounded out there in the dark woods. If I had, I should certainly have never— have never— kissed you."

Dick wheeled suddenly.

"Kissed me?" he exclaimed.

"Yes, you horrid thing!" sobbed Dollie. "If there had previously been the slightest doubt in my mind as to your identity, that would have convinced me that it was you, because — because— just because! And besides, if it wasn't you I kissed,

you ought to have told me!"

Dollie leaned forward suddenly on the arm of the chair with her face hidden in her hands. Dick crossed the room softly toward her and laid a hand caressingly about her shoulders. She shook it off angrily.

"How dare you, sir?" she blazed.

"Dollie, don't you love me?" he pleaded.

"No!" was the prompt reply.

"But you did love me— once?"

"Why— yes, but I— I— "

"And couldn't you ever love me again?"

"I— I don't ever want to again."

"But couldn't you?"

"If you had only told me the truth, instead of making such a silly denial," she blubbered. "I don't know why you took the plate unless— unless it is because you— you couldn't help it. But you didn't tell me the truth."

Dick stared down at the ruddy head moodily for a moment. Then his manner changed and he dropped on his knees beside her.

"Suppose," he whispered, "suppose I should confess that I did take it?"

Dollie looked up suddenly with a new horror in her face.

"Oh, you did do it then?" she demanded. This was worse than ever!

"Suppose I should confess that I did?"

"Oh, Dick!" she sobbed. And her arms went suddenly around his neck. "You are breaking my heart. Why? Why?"

"Would you be satisfied?" he insisted.

"What could have caused you to do such a thing?"

The love-light glimmered again in her blue eyes; the red lips trembled.

"Suppose it had been just a freak of mine, and I had intended to— to return the stuff, as has been done?" he went on.

Dollie stared deeply into the eyes upturned to hers.

"Silly boy," she said. Then she kissed him. "But you must never, never do it again."

"I never will," he promised solemnly.

Five minutes later Dick was leaving the house, when he met Mr. Meredith in the hall.

"I'm going to marry your daughter," he said quite calmly.

Mr. Meredith raved at him as he went down the steps.

ALONE in her room, with the key turned in the lock, Miss Dollie Meredith had a perfectly delightful time. She wept and laughed and sobbed and shuddered; she was pensive and doleful and happy and melancholy; she dreamed dreams of the future, past and present; she sang foolish little ecstatic songs— just a few words of each— and cried again copiously. Her father had sent her to her room with a stern reprimand, and she giggled joyously as she remembered it.

"After all, it wasn't anything," she assured herself. "It was silly for him to— to take the stuff, of course, but it's back now, and he told me the truth, and he intended to return it, anyway." In her present mood she would have justified anything. "And he's not a thief or anything. I don't suppose father will ever give his consent, so, after all, we'll have to elope, and that will be— perfectly delightful. Papa will go on dreadfully and then he'll be all right."

After a while Dollie snuggled down in the sheets and lay quite still in the dark until sleep overtook her. Silence reigned in the house. It was about two o'clock in the morning when she sat up suddenly in bed with startled eyes. She had heard something — or rather in her sleep she had received the impression of hearing something. She listened intently as she peered about.

Finally she did hear something— something tap sharply on the window once. Then came silence again. A frightened chill ran all the way down to Dollie's curling pink toes. There was a pause, and then again came the sharp click on the window, whereupon Dollie pattered out of bed in her bare feet and ran to the

window, which was open a few inches.

With the greatest caution she peered out. Vaguely skulking in the shadows below she made out the figure of a man. As she looked it seemed to draw up into a knot, then straighten out quickly. Involuntarily she dodged. There came another sharp click at the window. The man below was tossing pebbles against the pane with the obvious purpose of attracting her attention.

"Dick, is that you?" she called cautiously.

"Sh-h-h-h!" came the answer. "Here's a note for you. Open the window so I may throw it in."

"Is it really and truly you?" Dollie insisted.

"Yes," came the hurried, whispered answer. "Quick, someone is coming!"

Dollie threw the sash up and stepped back. A whirling, white object came through and fell noiselessly on the carpet. Dollie seized upon it eagerly and ran to the window again. Below she saw the retreating figure of a man. Other footsteps materialised in a bulky policeman, who strolled by seeking, perhaps, a quiet spot for a nap.

Shivering with excitement, Dollie closed the window and pulled down the shade, after which she lighted the gas. She opened the note eagerly and sat down upon the floor to read it. Now a large part of this note was extraneous verbiage of a superlative emotional nature — its vital importance was an outline of a new plan of elopement, to take place on Wednesday in time for them to catch a European-bound steamer at half-past two in the afternoon.

Dollie read and reread the crumpled sheet many times, and when finally its wording had been indelibly fixed in her mind she wasted an unbelievable number of kisses on it. Of course this was sheer extravagance, but— girls are wonderful creatures.

"He's the dearest thing in the world!" she declared at last.

She burned the note reluctantly and carefully disposed of the ashes by throwing them out of the window, after which she returned to her bed. On the following morning, Monday, father glared at daughter sternly as she demurely entered the breakfast-room. He was seeking to read that which no man has ever been able to read — a woman's face. Dollie smiled upon him charmingly.

After breakfast father and daughter had a little talk in a sunny corner of the library.

"I have planned for us to return to Baltimore on next Thursday," he informed her.

"Oh, isn't that delightful?" beamed Dollie.

"In view of everything and your broken promise to me— the promise not to see Herbert again— I think it wisest," he continued.

"Perhaps it is," she mused.

"Why did you see him?" he demanded.

"I consented to see him, only to bid him good-by," replied Dollie demurely, "and to make perfectly clear to him my position in this matter."

Oh, woman! Perfidious, insincere, loyal, charming woman! All the tangled skeins of life are the work of your dainty fingers. All the sins and sorrows are your doing!

Mr. Meredith rubbed his chin thoughtfully.

"You may take it as my wish— my order even," he said as he cleared his throat— for giving orders to Dollie was a dangerous experiment, "that you must not attempt to communicate in any way with Mr. Herbert again— by letter or otherwise."

"Yes, papa."

Mr. Meredith was somewhat surprised at the ease with

which he got away with this. Had he been blessed with a little more wisdom in the ways of women he would have been suspicious.

"You really do not love him, anyway," he ventured at last. "It was only a girlish infatuation."

"I told him yesterday just what I thought of him," she replied truthfully enough.

And thus the interview ended.

It was about noon that day when Hutchinson Hatch called on Dick Herbert.

"Well, what did you find out?" he inquired.

"Really, old man," said Dick kindly, "I have decided that there is nothing I can say to you about the matter. It's a private affair, after all."

"Yes, I know that you know about that, but the police don't know it," commented the reporter grimly.

"The police!" Dick smiled.

"Did you see her?" Hatch asked.

"Yes, I saw her— and her father, too."

Hatch saw the one door by which he had hoped to solve the riddle closing on him.

"Was Miss Meredith the girl in the automobile?" he asked bluntly.

"Really, I won't answer that."

"Are you the man who stole the gold plate?"

"I won't answer that, either," replied Dick smilingly. "Now, look here, Hatch, you're a good fellow. I like you. It is your business to find out things, but, in this particular affair, I'm going to make it my business to keep you from finding out things. I'll risk the police end of it." He went over and shook hands with the reporter cordially. "Believe me, if I told you the absolute truth— all of it— you couldn't print it unless— unless I was arrested, and I don't intend that that shall happen."

Hatch went away.

THAT NIGHT the Randolph gold plate was stolen for the second time. Thirty-six hours later Detective Mallory arrested Richard Herbert with the stolen plate in his possession. Dick burst out laughing when the detective walked in on him.

Part 3. The Thinking Machine

PROFESSOR Augustus S. F. X. Van Dusen, Ph. D., LL. D., F. R. S., M. D., etc., etc., was the Court of Last Appeal in the sciences. He was five feet two inches tall, weighed 107 pounds, that being slightly above normal, and wore a number eight hat. Bushy, yellow hair straggled down about his ears and partially framed a clean-shaven, wizened face in which were combined the paradoxical qualities of extreme aggressiveness and childish petulance. The mouth drooped a little at the corners, being otherwise a straight line; the eyes were mere slits of blue, squinting eternally through thick spectacles. His brow rose straight up, domelike, majestic even, and added a whimsical grotesqueness to his appearance.

The Professor's idea of light literature, for rare moments of recreation, was page after page of encyclopædic discussion on "ologies" and "isms" with lots of figures in 'em. Sometimes he wrote these discussions himself, and frequently held them up to annihilation. His usual speaking tone was one of deep annoyance, and he had an unwavering glare that went straight through one. He was the son of the son of the son of an eminent German scientist, the logical production of a house that had borne a distinguished name in the sciences for generations.

Thirty-five of his fifty years had been devoted to logic, study, analysis of cause and effect, mental, material, and psychological. By his personal efforts he had mercilessly flattened out and readjusted at least two of the exact sciences and had added immeasurably to the world's sum of knowledge in others. Once he had held the chair of philosophy in a great university, but casually one day he promulgated a thesis that knocked the

faculty's eye out, and he was invited to vacate. It was a dozen years later that that university had openly resorted to influence and diplomacy to induce him to accept its LL. D.

For years foreign and American institutions, educational, scientific, and otherwise, crowded degrees upon him. He didn't care. He started fires with the elaborately formal notifications of these unsought honours and turned again to his work in the small laboratory which was a part of his modest home. There he lived, practically a recluse, his simple wants being attended to by one aged servant, Martha.

This, then, was The Thinking Machine. This last title, The Thinking Machine, perhaps more expressive of the real man than a yard of honorary initials, was coined by Hutchinson Hatch at the time of the scientist's defeat of a chess champion after a single morning's instruction in the game. The Thinking Machine had asserted that logic was inevitable, and that game had proven his assertion. Afterward there had grown up a strange sort of friendship between the crabbed scientist and the reporter. Hatch, to the scientist, represented the great, whirling outside world; to the reporter the scientist was merely a brain—a marvellously keen, penetrating, infallible guide through material muddles far removed from the delicately precise labours of the laboratory.

Now The Thinking Machine sat in a huge chair in his reception-room with long, slender fingers pressed tip to tip and squint eyes turned upward. Hatch was talking, had been talking for more than an hour with infrequent interruptions. In that time he had laid bare the facts as he and the police knew them from the incidents of the masked ball at Seven Oaks to the return of Dollie Meredith.

"Now, Mr. Hatch," asked The Thinking Machine, "just what is known of this second theft of the gold plate?"

"It's simple enough," explained the reporter. "It was plain burglary. Some person entered the Randolph house on Monday night by cutting out a pane of glass and unfastening a window-

latch. Whoever it was took the plate and escaped. That's all anyone knows of it."

"Left no clew, of course?"

"No, so far as has been found."

"I presume that, on its return by express, Mr. Randolph ordered the plate placed in the small room as before?"

"Yes."

"He's a fool."

"Yes."

"Please go on."

"Now the police absolutely decline to say as yet just what evidence they have against Herbert beyond the finding of the plate in his possession," the reporter resumed, "though, of course, that's enough and to spare. They will not say, either, how they first came to connect him with the affair. Detective Mallory doesn't—"

"When and where was Mr. Herbert arrested?"

"Yesterday, Tuesday, afternoon in his rooms. Fourteen pieces of the gold plate were on the table."

The Thinking Machine dropped his eyes a moment to squint at the reporter.

"Only eleven pieces of the plate were first stolen, you said?"

"Only eleven, yes."

"And I think you said two shots were fired at the thief?"

"Yes."

"Who fired them, please?"

"One of the detectives— Cunningham, I think."

"It was a detective— you know that?"

"Yes, I know that."

"Yes, yes. Please go on."

"The plate was all spread out— there was no attempt to conceal it," Hatch resumed. "There was a box on the floor and Herbert was about to pack the stuff in it when Detective Mallory and two of his men entered. Herbert's servant, Blair, was away from the house at the time. His people are up in Nova Scotia, so

he was alone."

"Nothing but the gold plate was found?"

"Oh, yes!" exclaimed the reporter. "There was a lot of jewelry in a case and fifteen or twenty odd pieces— fifty thousand dollars' worth of stuff, at least. The police took it to find the owners."

"Dear me! Dear me!" exclaimed The Thinking Machine. "Why didn't you mention the jewelry at first? Wait a minute."

Hatch was silent while the scientist continued to squint at the ceiling. He wriggled in his chair uncomfortably and smoked a couple of cigarettes before The Thinking Machine turned to him and nodded.

"That's all I know," said Hatch.

"Did Mr. Herbert say anything when arrested?"

"No, he only laughed. I don't know why. I don't imagine it would have been at all funny to me."

"Has he said anything since?"

"No, nothing to me or anybody else. He was arraigned at a preliminary hearing, pleaded not guilty, and was released on twenty thousand dollars bail. Some of his rich friends furnished it."

"Did he give any reason for his refusal to say anything?" insisted The Thinking Machine testily.

"He remarked to me that he wouldn't say anything, because, even if he told the truth, no one would believe him."

"If it should have been a protestation of innocence I'm afraid nobody would have believed him," commented the scientist enigmatically. He was silent for several minutes. "It could have been a brother, of course," he mused.

"A brother?" asked Hatch quickly. "Whose brother? What brother?"

"As I understand it," the scientist went on, not heeding the question, "you did not believe Herbert guilty of the first theft?"

"Why, I couldn't," Hatch protested. "I couldn't," he repeated.

"Why?"

"Well, because— because he's not that sort of man," explained the reporter. "I've known him for years, personally and by reputation."

"Was he a particular friend of yours in college?"

"No, not an intimate, but he was in my class— and he's a whacking, jam-up, ace-high football player." That squared everything.

"Do you now believe him guilty?" insisted the scientist.

"I can't believe anything else— and yet I'd stake my life on his honesty."

"And Miss Meredith?"

The reporter was reaching the explosive point. He had seen and talked to Miss Meredith, you know.

"It's perfectly asinine to suppose that she had anything to do with either theft, don't you think?"

The Thinking Machine was silent on that point.

"Well, Mr. Hatch," he said finally, "the problem comes down to this: Did a man, and perhaps a woman, who are circumstantially proven guilty of stealing the gold plate, actually steal it? We have the stained cushion of the automobile in which the thieves escaped to indicate that one of them was wounded; we have Mr. Herbert with an injured right shoulder— a hurt received that night on his own statement, though he won't say how. We have, then, the second theft and the finding of the stolen property in his possession along with another lot of stolen stuff— jewels. It is apparently a settled case now without going further."

"But— " Hatch started to protest.

"But suppose we do go a little further," The Thinking Machine went on. "I can prove definitely, conclusively, and finally by settling only two points whether or not Mr. Herbert was wounded while in the automobile. If he was wounded while in that automobile, he was the first thief; if not, he wasn't. If he was the first thief, he was probably the second, but even if he were not the first thief, there is, of course, a possibility that he

was the second."

Hatch was listening with mouth open.

"Suppose we begin now," continued The Thinking Machine, "by finding out the name of the physician who treated Mr. Herbert's wound last Thursday night. Mr. Herbert may have a reason for keeping the identity of this physician secret, but, perhaps— wait a minute," and the scientist disappeared into the next room. He was gone for five minutes. "See if the physician who treated the wound wasn't Dr. Clarence Walpole."

The reporter blinked a little.

"Right," he said. "What next?"

"Ask him something about the nature of the wound and all the usual questions."

Hatch nodded.

"Then," resumed The Thinking Machine casually, "bring me some of Mr. Herbert's blood."

The reporter blinked a good deal, and gulped twice.

"How much?" he inquired briskly.

"A single drop on a small piece of glass will do very nicely," replied the scientist.

THE SUPREME Police Intelligence of the Metropolitan District was doing some heavy thinking, which, modestly enough, bore generally on his own dazzling perspicacity. Just at the moment he couldn't recall any detector of crime whose lustre in any way dimmed his own, or whose mere shadow, even, had a right to fall on the same earth as his; and this lapse of memory so stimulated his admiration for the subject of his thoughts that he lighted a fresh cigar and put his feet in the middle of the desk.

He sat thus when The Thinking Machine called. The Supreme Intelligence— Mr. Mallory— knew Professor Van Dusen well, and, though he received his visitor graciously, he showed no difficulty in restraining any undue outburst of enthusiasm. Instead, the same admirable self-control which prevented him from outwardly evidencing his pleasure prompted him to square

back in his chair with a touch of patronising aggressiveness in his manner.

"Ah, Professor," was his noncommittal greeting.

"Good-evening, Mr. Mallory," responded the scientist in the thin, irritated voice which always set Mr. Mallory's nerves a-jangle. "I don't suppose you would tell me by what steps you were led to arrest Mr. Herbert?"

"I would not," declared Mr. Mallory promptly.

"No, nor would you inform me of the nature of the evidence against him in addition to the jewels and plate found in his possession?"

"I would not," replied Mr. Mallory again.

"No, I thought perhaps you would not," remarked The Thinking Machine. "I understand, by the way, that one of your men took a leather cushion from the automobile in which the thieves escaped on the night of the ball?"

"Well, what of it?" demanded the detective.

"I merely wanted to inquire if it would be permissible for me to see that cushion?"

Detective Mallory glared at him suspiciously, then slowly his heavy face relaxed, and he laughed as he arose and produced the cushion.

"If you're trying to make any mystery of this cushion, you're in bad," he informed the scientist. "We know the owner of the automobile in which Herbert and the Girl escaped. The cushion means nothing."

The Thinking Machine examined the heavy leather carefully and paid a great deal of attention to the crusted stains which it bore. He picked at one of the brown spots with his penknife and it flaked off in his hand.

"Herbert was caught with the goods on," declared the detective, and he thumped the desk with his lusty fist. "We've got the right man."

"Yes," admitted The Thinking Machine, "it begins to look very much as if you did have the right man— for once."

Detective Mallory snorted.

"Would you mind telling me if any of the jewelry you found in Mr. Herbert's possession has been identified?"

"Sure thing," replied the detective. "That's where I've got Herbert good. Four people who lost jewelry at the masked ball have appeared and claimed pieces of the stuff."

For an instant a slightly perplexed wrinkle appeared in the brow of The Thinking Machine, and as quickly it passed.

"Of course, of course," he mused.

"It's the biggest haul of stolen goods the police of this city have made for many years," the detective volunteered complacently. "And, if I'm not wrong, there's more of it coming — no man knows how much more. Why, Herbert must have been operating for years, and he got away with it, of course, by the gentlemanly exterior, the polish, and all that. I consider his capture the most important that has happened since I have been connected with the police."

"Indeed?" inquired the scientist thoughtfully. He was still gazing at the cushion.

"And the most important development of all is to come," Detective Mallory rattled on. "That will be the real sensation, and make the arrest of Herbert seem purely incidental. It now looks as if there would be another arrest of a— of a person who is so high socially, and all tha— "

"Yes," interrupted The Thinking Machine, "but do you think it would be wise to arrest her now?"

"Her?" demanded Detective Mallory. "What do you know of any woman?"

"You were speaking of Miss Dorothy Meredith, weren't you?" inquired The Thinking Machine blandly. "Well, I merely asked if you thought it would be wise for your men to go so far as to arrest her."

The detective bit his cigar in two in obvious perturbation.

"How— how— did you happen to know her name?" he demanded.

"Oh, Mr. Hatch mentioned it to me," replied the scientist. "He has known of her connection with the case for several days, as well as Herbert's, and has talked to them both, I think."

The Supreme Intelligence was nearly apoplectic.

"If Hatch knew it why didn't he tell me?" he thundered.

"Really, I don't know," responded the scientist. "Perhaps," he added curtly, "he may have had some absurd notion that you would find it out for yourself. He has strange ideas like that sometimes."

And when Detective Mallory had fully recovered The Thinking Machine was gone.

Meanwhile Hatch had seen and questioned Dr. Clarence Walpole in the latter's office, only a stone's throw from Dick Herbert's home. Had Doctor Walpole recently dressed a wound for Mr. Herbert? Doctor Walpole had. A wound caused by a pistol-bullet? Yes.

"When was it, please?" asked Hatch.

"Only a few nights ago."

"Thursday night, perhaps?"

Doctor Walpole consulted a desk-dairy.

"Yes, Thursday night, or rather Friday morning," he replied.

"It was between two and three o'clock. He came here and I fixed him up."

"Where was the wound, please?"

"In the right shoulder," replied the physician, "just here," and he touched the reporter with one finger. "It wasn't dangerous, but he had lost considerable blood."

Hatch was silent for a moment, dazed. Every new point piled up the evidence against Herbert. The location of the wound— a pistol-wound— the very hour of the dressing of it! Dick would have had plenty of time between the moment of the robbery, which was comparatively early, and the hour of his call on Doctor Walpole to do all those things which he was suspected of doing.

"I don't suppose Mr. Herbert explained how he got the

wound?" Hatch asked apprehensively. He was afraid he had.

"No. I asked, but he evaded the question. It was, of course, none of my business, after I had extracted the bullet and dressed the hurt."

"You have the bullet?"

"Yes. It's the usual size— thirty-two calibre."

That was all. The prosecution was in, the case proven, the verdict rendered. Ten minutes later Hatch's name was announced to Dick Herbert. Dick received him gloomily, shook hands with him, then resumed his interrupted pacing.

"I had declined to see men from other papers," he said wearily.

"Now, look here, Dick," expostulated Hatch, "don't you want to make some statement of your connection with this affair? I honestly believe that if you did it would help you."

"No, I cannot make any statement— that's all." Dick's hand closed fiercely. "I can't," he added, "and there's no need to talk of it." He continued his pacing for a moment or so; then turned on the reporter. "Do you believe me guilty?" he demanded abruptly.

"I can't believe anything else," Hatch replied falteringly. "But at that I don't want to believe it." There was an embarrassed pause. "I have just seen Dr. Clarence Walpole."

"Well?" Dick wheeled on him angrily.

"What he said alone would convict you, even if the stuff had not been found here," Hatch replied.

"Are you trying to convict me?" Dick demanded.

"I'm trying to get the truth," remarked Hatch.

"There is just one man in the world whom I must see before the truth can ever be told," declared Dick vehemently. "And I can't find him now. I don't know where he is!"

"Let me find him. Who is he? What's his name?"

"If I told you that I might as well tell you everything," Dick went on. "It was to prevent any mention of that name that I have allowed myself to be placed in this position. It is purely a

personal matter between us— at least I will make it so— and if I ever meet him— " his hands closed and unclosed spasmodically, "the truth will be known unless I— I kill him first."

More bewildered, more befuddled, and more generally betangled than ever, Hatch put his hands to his head to keep it from flying off. Finally he glanced around at Dick, who stood with clenched fists and closed teeth. A blaze of madness lay in Dick's eyes.

"Have you seen Miss Meredith again?" inquired the reporter.

Dick burst out laughing.

Half an hour later Hatch left him. On the glass top of an inkstand he carried three precious drops of Herbert's blood.

FAITHFULLY, phonographically even, Hatch repeated to The Thinking Machine the conversation he had had with Doctor Walpole, indicating on the person of the eminent scientist the exact spot of the wound as Doctor Walpole had indicated it to him. The scientist listened without comment to the recital, casually studying meanwhile the three crimson drops on the glass.

"Every step I take forward is a step backward," the reporter declared in conclusion with a helpless grin. "Instead of showing that Dick Herbert might not have stolen the plate I am proving conclusively that he was the thief — nailing it to him so hard that he can't possibly get out of it." He was silent a moment. "If I keep on long enough," he added glumly, "I'll hang him."

The Thinking Machine squinted at him aggressively.

"You still don't believe him guilty?" he asked.

"Why, I— I— I— " Hatch burst out savagely. "Damn it, I don't know what I believe," he tapered off. "It's absolutely impossible!"

"Nothing is impossible, Mr. Hatch," snapped The Thinking Machine irritably. "The worst a problem can be is difficult, but all problems can be solved as inevitably as that two and two make four— not sometimes, but all the time. Please don't say things

are impossible. It annoys me exceedingly."

Hatch stared at his distinguished friend and smiled whimsically. He was also annoyed exceedingly on his own private, individual account — the annoyance that comes from irresistibly butting into immovable facts.

"Doctor Walpole's statement," The Thinking Machine went on after a moment, "makes this particular problem ludicrously simple. Two points alone show conclusively that Mr. Herbert was not the man in the automobile. I shall reach the third myself."

Hatch didn't say anything. The English language is singularly inadequate at times, and if he had spoken he would have had to invent a phraseology to convey even a faint glimmer of what he really thought.

"Now, Mr. Hatch," resumed the scientist, quite casually, "I understand you graduated from Harvard in ninety-eight. Yes? Well, Herbert was a classmate of yours there. Please obtain for me one of the printed lists of students who were in Harvard that year— a complete list."

"I have one at home," said the reporter.

"Get it, please, immediately, and return here," instructed the scientist.

Hatch went out and The Thinking Machine disappeared into his laboratory. He remained there for one hour and forty-seven minutes by the clock. When he came out he found the reporter sitting in the reception-room again, holding his head. The scientist's face was as blankly inscrutable as ever.

"Here is the list," said Hatch as he handed it over.

The Thinking Machine took it in his long, slender fingers and turned two or three leaves. Finally he stopped and ran a finger down one page.

"Ah," he exclaimed at last. "I thought so."

"Thought what?" asked Hatch curiously.

"I'm going out to see Mr. Meredith now," remarked The Thinking Machine irrelevantly. "Come along. Have you met

him?"

"No."

Mr. Meredith had read the newspaper accounts of the arrest of Dick Herbert and the seizure of the gold plate and jewels; he had even taunted his charming daughter with it in a fatherly sort of a way. She was weeping, weeping her heart out over this latest proof of the perfidy and loathsomeness of the man she loved. Incidentally, it may be mentioned here that the astute Mr. Meredith was not aware of any elopement plot— either the first or second.

When a card bearing the name of Mr. Augustus S. F. X. Van Dusen was handed to Mr. Meredith he went wonderingly into the reception-room. There was a pause as the scientist and Mr. Meredith mentally sized each other up; then introductions—and The Thinking Machine came down to business abruptly, as always.

"May I ask, Mr. Meredith," he began, "how many sons you have?"

"One," replied Mr. Meredith, puzzled.

"May I ask his present address?" went on the scientist.

Mr. Meredith studied the belligerent eyes of his caller and wondered what business it was of his, for Mr. Meredith was a belligerent sort of a person himself.

"May I ask," he inquired with pronounced emphasis on the personal pronoun, "why you want to know?"

Hatch rubbed his chin thoughtfully. He was wondering what would happen to him when the cyclone struck.

"It may save him and you a great deal of annoyance if you will give me his address," said The Thinking Machine. "I desire to communicate with him immediately on a matter of the utmost importance— a purely personal matter."

"Personal matter?" repeated Mr. Meredith. "Your abruptness and manner, sir, were not calculated to invite confidence."

The Thinking Machine bowed gravely.

"May I ask your son's address?" he repeated.

Mr. Meredith considered the matter at some length and finally arrived at the conclusion that he might ask.

"He is in South America at present— Buenos Ayres," he replied.

"What?" exclaimed The Thinking Machine so suddenly that both Hatch and Mr. Meredith started a little. "What?" he repeated, and wrinkles suddenly appeared in the domelike brow.

"I said he was in South America— Buenos Ayres," repeated Mr. Meredith stiffly, but a little awed. "A letter or cable to him in care of the American Consul at Buenos Ayres will reach him promptly."

The Thinking Machine's narrow eyes were screwed down to the disappearing point, the slender white fingers were twiddled jerkily, the corrugations remained in his brow.

"How long has Mr. Meredith been there?" he asked at last.

"Three months."

"Do you know he is there?"

Mr. Meredith started to say something then swallowed it with an effort.

"I know it positively, yes," he replied. "I received this letter dated the second from him three days ago, and to-day I received a cable-dispatch forwarded to me here from Baltimore."

"Are you positive the letter is in your son's handwriting?"

Mr. Meredith almost choked in mingled bewilderment and resentment at the question and the manner of its asking.

"I am positive, yes," he replied at last, preserving his tone of dignity with a perceptible effort. He noted the inscrutable face of his caller and saw the corrugations in the brow suddenly swept away. "What business of yours is it, anyway?" blazed Mr. Meredith suddenly.

"May I ask where you were last Thursday night?" went on the even, steady voice.

"It's no business of yours," Mr. Meredith blurted. "I was in

Baltimore."

"Can you prove it in a court of law?"

"Prove it? Of course I can prove it!" Mr. Meredith was fairly bellowing at his impassive interrogator. "But it's nobody's business."

"If you can prove it, Mr. Meredith," remarked The Thinking Machine quietly, coldly, "you had best make your arrangements to do so, because, believe me, it may be necessary to save you from a charge of having stolen the Randolph gold plate on last Thursday night at the masked ball. Good-day, sir."

"BUT MR. Herbert won't see anyone, sir," protested Blair.

"Tell Mr. Herbert, please, that unless I can see him immediately his bail-bond will be withdrawn," directed The Thinking Machine.

He stood waiting in the hall while Blair went up the stairs. Dick Herbert took the card impatiently and glanced at it.

"Van Dusen," he mused. "Who the deuce is Van Dusen?"

Blair repeated the message he had received below.

"What does he look like?" inquired Dick.

"He's a shrivelled little man with a big yellow head, sir," replied Blair.

"Let him come up," instructed Dick.

Thus, within an hour after he had talked to Mr. Meredith, The Thinking Machine met Dick Herbert.

"What's this about the bail-bond?" Dick inquired.

"I wanted to talk to you," was the scientist's calm reply.

"That seemed to be the easiest way to make you believe it was important, so— "

Dick's face flushed crimson at the trick.

"Well, you see me!" he broke out angrily. "I ought to throw you down the stairs, but— what is it?"

Not having been invited to a seat, The Thinking Machine took one anyway and settled himself comfortably.

"If you will listen to me for a moment without interruption,"

he began testily, "I think the subject of my remarks will be of deep personal concern to you. I am interested in solving this Randolph plate affair and have perhaps gone further in my investigation than anyone else. At least, I know more about it. There are some things I don't happen to know, however, that are of the greatest importance."

"I tell you— " stormed Dick.

"For instance," calmly resumed the scientist, "it is very important for me to know whether or not Harry Meredith was masked when he came into this room last Thursday night."

Dick gazed at him in surprise which approached awe. His eyes were widely distended, the lower part of his face lax, for the instant; then his white teeth closed with a snap and he sat down opposite The Thinking Machine. Anger had gone from his manner; instead there was a pallor of apprehension in the clean-cut face.

"Who are you, Mr. Van Dusen?" he asked at last. His tone was mild, even deferential.

"Was he masked?" insisted the scientist.

For a long while Dick was silent. Finally he arose and paced nervously back and forth across the room, glancing at the diminutive figure of The Thinking Machine each time as he turned.

"I won't say anything," he decided.

"Will you name the cause of the trouble you and Meredith had at Harvard?" asked the scientist.

Again there was a long pause.

"No," Dick said finally.

"Did it have anything to do with theft?"

"I don't know who you are or why you are prying into an affair that, at least on its face, does not concern you," replied Dick. "I'll say nothing at all— unless— unless you produce the one man who can and shall explain this affair. Produce him here in this room where I can get my hands on him!"

The Thinking Machine squinted at the sturdy shoulders with

admiration in his face.

"Did it ever happen to occur to you, Mr. Herbert, that Harry Meredith and his father are precisely of the same build?"

Some nameless, impalpable expression crept into Dick's face despite an apparent fight to restrain it, and again he stared at the small man in the chair.

"And that you and Mr. Meredith are practically of the same build?"

Tormented by unasked questions and by those emotions which had compelled him to silence all along, Dick still paced back and forth. His head was whirling. The structure which he had so carefully guarded was tumbling about his ears. Suddenly he stopped and turned upon The Thinking Machine.

"Just what do you know of this affair?" he asked.

"I know for one thing," replied the scientist positively, "that you were not the man in the automobile."

"How do you know that?"

"That's beside the question just now."

"Do you know who was in the automobile?" Dick insisted.

"I can only answer that question when you have answered mine," the scientist went on. "Was Harry Meredith masked when he entered this room last Thursday night?"

Dick sat staring down at his hands, which were working nervously. Finally he nodded.

The Thinking Machine understood.

"You recognised him, then, by something he said or wore?"

Again Dick nodded reluctantly.

"Both," he added.

The Thinking Machine leaned back in his chair and sat there for a long time. At last he arose as if the interview were at an end. There seemed to be no other questions that he desired to ask at the moment.

"You need not be unnecessarily alarmed, Mr. Herbert," he assured Dick as he picked up his hat. "I shall act with discretion in this matter. I am not representing anyone who would care to

make it unpleasant for you. I may tell you that you made two serious mistakes: the first when you saw or communicated with Mr. Randolph immediately after the plate was stolen the second time, and again when you undertook something which properly belonged within the province of the police."

Herbert still sat with his head in his hands as The Thinking Machine went out.

It was very late that night— after twelve, in fact— when Hutchinson Hatch called on The Thinking Machine with excitement evident in tone, manner, and act. He was accustomed to calling at any hour; now he found the scientist at work as if it were midday.

"The worst has happened," the reporter told him.

The Thinking Machine didn't look around.

"Detective Mallory and two of his men saw Miss Meredith this evening about nine o'clock," Hatch hurried on, "and bully-ragged her into a confession."

"What sort of a confession?"

"She admitted that she was in the automobile on the night of the ball and that— —"

"Mr. Herbert was with her," the scientist supplied.

"Yes."

"And— what else?"

"That her own jewels, valued at twenty thousand dollars, were among those found in Herbert's possession when he was arrested."

The Thinking Machine turned and looked at the reporter, just casually, and raised his hand to his mouth to cover a yawn.

"Well, she couldn't do anything else," he said calmly.

HUTCHINSON Hatch remained with The Thinking Machine for more than an hour, and when he left his head was spinning with the multitude of instructions which had been heaped upon him.

"Meet me at noon in Detective Mallory's office at police

headquarters," The Thinking Machine had said in conclusion.

"Mr. Randolph and Miss Meredith will be there."

"Miss Meredith?" Hatch repeated. "She hasn't been arrested, you know, and I doubt if she will come."

"She will come," the scientist had replied, as if that settled it.

Next day the Supreme Intelligence was sitting in his private office. He had eaten the canary; mingled triumph and gratification beamed upon his countenance. The smile remained, but to it was added the quality of curiosity when the door opened and The Thinking Machine, accompanied by Dollie Meredith and Stuyvesant Randolph, entered.

"Mr. Hatch called yet?" inquired the scientist.

"No," responded the detective.

"Dear me!" grumbled the other. "It's one minute after twelve o'clock now. What could have delayed him?"

His answer was the clattering rush of a cab and the appearance of Hatch in person a moment later. He came into the room headlong, glanced around, then paused.

"Did you get it?" inquired The Thinking Machine.

"Yes, I got it, but—" began the reporter.

"Nothing else now," commanded the other.

There was a little pause as The Thinking Machine selected a chair. The others also sat down.

"Well?" inquired the Supreme Intelligence at last.

"I would like to ask, Mr. Mallory," the scientist said, "if it would be possible for me to convince you of Mr. Herbert's innocence of the charges against him?"

"It would not," replied the detective promptly. "It would not while the facts are before me, supplemented by the statement of Miss Meredith here— her confession."

Dollie coloured exquisitely and her lips trembled slightly.

"Would it be possible, Miss Meredith," the even voice went on, "to convince you of Mr. Herbert's innocence?"

"I— I don't think so," she faltered. "I— I know."

Tears which had been restrained with difficulty gushed forth

suddenly, and The Thinking Machine squinted at her in pained surprise.

"Don't do that," he commanded. "It's— it's exceedingly irritating." He paused a moment, then turned suddenly to Mr. Randolph. "And you?" he asked.

Mr. Randolph shrugged his shoulders.

The Thinking Machine receded still further into his chair and stared dreamily upward with his long, slender fingers pressed tip to tip. Hatch knew the attitude; something was going to happen. He waited anxiously. Detective Mallory knew it, too, and wriggled uncomfortably.

"Suppose," the scientist began, "just suppose that we turn a little human intelligence on this problem for a change and see if we can't get the truth out of the blundering muddle that the police have helped to bring about. Let's use logic, inevitable logic, to show, simply enough, that instead of being guilty, Mr. Herbert is innocent."

Dolly Meredith suddenly leaned forward in her chair with flushed face, eyes widely opened and lips slightly parted. Detective Mallory also leaned forward in his chair, but there was a different expression on his face— oh, so different.

"Miss Meredith, we know you were in the automobile with the Burglar who stole the plate," The Thinking Machine went on. "You probably knew that he was wounded and possibly either aided in dressing the wound — as any woman would — or else saw him dress it himself?"

"I bound my handkerchief on it," replied the Girl. Her voice was low, almost a whisper.

"Where was the wound?"

"In the right shoulder," she replied.

"Back or front?" insisted the scientist.

"Back," she replied. "Very near the arm, an inch or so below the level of the shoulder."

Except for The Thinking Machine himself Hatch was the only person in the room to whom this statement meant anything,

and he restrained a shout with difficulty.

"Now, Mr. Mallory," the scientist went on calmly, "do you happen to know Dr. Clarence Walpole?"

"I know of him, yes," replied the detective. "He is a man of considerable reputation."

"Would you believe him under oath?"

"Why, certainly, of course."

The Supreme Intelligence tugged at his bristly moustache.

"If Doctor Walpole should dress a wound and should later, under oath, point out its exact location, you would believe him?"

"Why, I'd have to, of course."

"Very well," commented The Thinking Machine tersely. "Now I will state an incontrovertible scientific fact for your further enlightenment. You may verify it any way you choose. This is, briefly, that the blood corpuscles in man average one-thirty-three hundredths of an inch in diameter. Remember that, please: one-thirty-three hundredths of an inch. The system of measurement has reached a state of perfection almost incomprehensible to the man who does not understand."

He paused for so long that Detective Mallory began to wriggle again. The others were leaning forward, listening with widely varied expressions on their faces.

"Now, Mr. Mallory," continued The Thinking Machine at last, "one of your men shot twice at the Burglar in the automobile, as I understand it?"

"Yes— two shots."

"Mr. Cunningham?"

"Yes, Detective Cunningham."

"Is he here now?"

The detective pressed a button on his desk and a uniformed man appeared. Instructions were given, and a moment later Detective Cunningham stood before them wondering.

"I suppose you can prove beyond any shadow of a doubt," resumed the scientist, still addressing Mr. Mallory, "that two shots— and only two— were fired?"

"I can prove it by twenty witnesses," was the reply.

"Good, very good," exclaimed the scientist, and he turned to Cunningham. "You know that only two shots were fired?"

"I know it, yes," replied Cunningham. "I fired 'em."

"May I see your revolver?"

Cunningham produced the weapon and handed it over. The Thinking Machine merely glanced at it.

"This is the revolver you used?"

"Yes."

"Very well, then," remarked the scientist quietly, "on that statement alone Mr. Herbert is proven innocent of the charge against him."

There was an astonished gasp all around. Hatch was beginning to see what The Thinking Machine meant, and curiously watched the bewitchingly sorrowful face of Dollie Meredith. He saw all sorts of strange things there.

"Proven innocent?" snorted Detective Mallory. "Why, you've convicted him out of hand so far as I can see."

"Corpuscles in human blood average, as I said, one-thirty-three hundredths of an inch in diameter," resumed the scientist. "They vary slightly each way, of course. Now, the corpuscles of the Burglar in the automobile measured just one-thirty-one-forty-seven hundredths of an inch. Mr. Herbert's corpuscles, tested the same way, with the same instruments, measure precisely one-thirty-five-sixty hundredths." He stopped as if that were all.

"By George!" exclaimed Mr. Randolph. "By George!"

"That's all tommy-rot," Detective Mallory burst out. "That's nothing to a jury or to any other man with common sense."

"That difference in measurement proves beyond question that Mr. Herbert was not wounded while in the automobile," went on The Thinking Machine as if there had been no interruption. "Now, Mr. Cunningham, may I ask if the Burglar's back was toward you when you fired?"

"Yes, I suppose so. He was going away from me."

"Well, that statement agrees with the statement of Miss Meredith to show that the Burglar was wounded in the back. Doctor Walpole dressed Mr. Herbert's wound between two and three o'clock Friday morning following the masked ball. Mr. Herbert had been shot, but the wound was in the front of his right shoulder."

Delighted amazement radiated from Dollie Meredith's face; she clapped her hands involuntarily as she would have applauded a stage incident. Detective Mallory started to say something, then thought better of it and glared at Cunningham instead.

"Now, Mr. Cunningham says that he shot the Burglar with this revolver." The Thinking Machine waved the weapon under Detective Mallory's nose. "This is the usual police weapon. Its calibre is thirty-eight. Mr. Herbert was shot with a thirty-two calibre. Here is the bullet." And he tossed it on the desk.

STRANGE emotions all tangled up with turbulent, night-marish impressions scrambled through Dollie Meredith's pretty head in garish disorder. She didn't know whether to laugh or cry. Finally she compromised by blushing radiantly at the memory of certain lingering kisses she had bestowed upon— upon— Dick Herbert? No, it wasn't Dick Herbert. Oh, dear!

Detective Mallory pounced upon the bullet as a hound upon a hare, and turned and twisted it in his hands. Cunningham leaned over his shoulder, then drew a cartridge from the revolver and compared it, as to size, with the bullet. Hatch and Mr. Randolph, looking on, saw him shake his head. The ball was too small for the revolver.

The Supreme Intelligence turned suddenly, fiercely, upon Dollie and thrust an accusing finger into her startled face.

"Mr. Herbert confessed to you that he was with you in the automobile, didn't he?"

"Y-yes," she faltered.

"You know he was with you?"

"I thought I knew it."

"You wouldn't have gone with any other man?"

"Certainly not!" A blaze of indignation suffused her cheeks.

"Your casket of jewels was found among the stolen goods in his possession?"

"Yes, but— "

With a wave of his hand the Supreme Intelligence stopped explanations and turned to glare at The Thinking Machine. That imperturbable gentleman did not alter his position in the slightest, nor did he change the steady, upward squint of his eyes.

"If you have quite finished, Mr. Mallory," he said after a moment, "I will explain how and in what circumstances the stolen plate and jewels came into Mr. Herbert's possession."

"Go on," urged Mr. Randolph and Hatch in a breath.

"Explain all you please; I've got him with the goods on," declared the Supreme Intelligence doggedly.

"When the simplest rules of logic establish a fact it becomes incontrovertible," resumed the scientist. "I have shown that Mr. Herbert was not the man in the automobile— the Burglar. Now, what did happen to Mr. Herbert? Twice since his arrest he has stated that it would be useless for him to explain because no one would believe it, and no one would have believed it unsupported, least of all you, Mr. Mallory.

"It's an admitted fact that Miss Meredith and Mr. Herbert had planned to elope from Seven Oaks the night of the ball. I daresay that Mr. Herbert did not deem it wise for Miss Meredith to know his costume, although he must, of necessity, have known hers. Therefore, the plan was for him to recognise her, but as it developed she recognised him— or thought she did— and that was the real cause of this remarkable muddle." He glanced at Dollie. "Is that correct?"

Dollie nodded blushing.

"Now, Mr. Herbert did not go to the ball— why not I will explain later. Therefore, Miss Meredith recognised the real

Burglar as Mr. Herbert, and we know how they ran away together after the Burglar had stolen the plate and various articles of jewelry. We must credit the Burglar with remarkable intelligence, so that when a young and attractive woman— I may say a beautiful woman— spoke to him as someone else he immediately saw an advantage in it. For instance, when there came discovery of the theft the girl might unwittingly throw the police off the track by revealing to them what she believed to be the identity of the thief. Further, he was a daring, audacious sort of person; the pure love of such an adventure might have appealed to him. Still, again, it is possible that he believed Miss Meredith a thief who was in peril of discovery or capture, and a natural gallantry for one of his own craft prompted him to act as he did. There is always, too, the possibility that he knew he was mistaken for Mr. Herbert."

Dollie was beginning to see, too.

"We know the method of escape, the pursuit, and all that," continued the Professor, "therefore we jump to the return of the gold plate. Logic makes it instantly apparent that that was the work of Miss Meredith here. Not having the plate, Mr. Herbert did not send it back, of course; and the Burglar would not have sent it back. Realising, too late, that the man she was with was really a thief— and still believing him, perhaps, to be Mr. Herbert— she must have taken the plate and escaped under cover of darkness?"

The tone carried a question and The Thinking Machine turned squintingly upon Dollie. Again she nodded. She was enthralled, fascinated, by the recital.

"It was a simple matter for her to return the gold plate by express, taking advantage of an unoccupied house and the willingness of a stranger to telephone for an express wagon. Thus, we have the plate again at Seven Oaks, and we have it there by the only method it could have been returned there when we account for, and consider, every known fact."

The Thinking Machine paused and sat silently staring

upward. His listeners readjusted themselves in their chairs and waited impatiently.

"Now, why did Mr. Herbert confess to Miss Meredith that he stole the plate?" asked the scientist, as if of himself. "Perhaps she forced him to it. Mr. Herbert is a young man of strong loyalty and a grim sense of humour, this latter being a quality the police are not acquainted with. However, Mr. Herbert did confess to Miss Meredith that he was the Burglar, but he made this confession, obviously, because she would believe nothing else, and when a seeming necessity of protecting the real Burglar was still uppermost in his mind. What he wanted was the Girl. If the facts never came out he was all right; if they did come out they would implicate one whom he was protecting, but through no fault of his — therefore, he was still all right."

"Bah!" exclaimed the Supreme Intelligence. "My experience has shown that a man doesn't confess to a theft unless—"

"So we may safely assume," The Thinking Machine continued almost pleasantly, "that Mr. Herbert, by confessing the theft as a prank, perhaps, won back Miss Meredith's confidence; that they planned an elopement for the second time. A conversation Mr. Hatch had with Mr. Herbert immediately after Mr. Herbert saw Miss Meredith practically confirms it. Then, with matters in this shape, the real Burglar, to whom I have accredited unusual powers, stole the plate the second time — we know how."

"Herbert stole it, you mean!" blazed Detective Mallory.

"This theft came immediately on top of the reconciliation of Miss Meredith and Mr. Herbert," The Thinking Machine went on steadily, without heeding the remark by the slightest sign.

"Therefore, it was only natural that he should be the person most vitally interested in seeing that the plate was again returned. He undertook to do this himself. The result was that, where the police had failed, he found the plate and a lot of jewels, took them from the Burglar, and was about to return Mr. Randolph's property when the detectives walked in on him. That is why he laughed."

Detective Mallory arose from his seat and started to say something impolite. The presence of Dollie Meredith choked the words back and he swallowed hard.

"Who then," he demanded after a couple of gulps— "who do you say is the thief if Herbert is not?"

The Thinking Machine glanced up into his face, then turned to Hatch.

"Mr. Hatch, what is that name I asked you to get?"

"George Francis Hayden," was the stammering reply, "but— but— "

"Then George Francis Hayden is the thief," declared The Thinking Machine emphatically.

"But I— I started to say," Hatch blurted— "I started to say that George Francis Hayden has been dead for two years."

The Thinking Machine rose suddenly and glared at the reporter. There was a tense silence, broken at last by a chuckle from Detective Mallory.

"Dead?" repeated the scientist incredulously. "Do you know that?"

"Yes, I— I know it."

The Thinking Machine stood for another moment squinting at him, then, turning, left the room.

HALF AN hour later The Thinking Machine walked in, unannounced, upon Dick Herbert. The front door had not been locked; Blair was somewhere in the rear. Herbert, in some surprise, glanced up at his visitor just in time to see him plank himself down solidly into a chair.

"Mr. Herbert," the scientist began, "I have gone out of my way to prove to the police that you were not in the automobile with Miss Meredith, and that you did not steal the gold plate found in your possession. Now, I happen to know the name of the thief, and— "

"And if you mention it to one living soul," Dick added suddenly, hotly, "I shall forget myself and— and— "

"His name is George Francis Hayden," the scientist continued.

Dick started a little and straightened up; the menace dropped from him and he paused to gaze curiously into the wizened face before him. After a moment he drew a sigh of deep relief.

"Oh!" he exclaimed. "Oh!"

"I know that that isn't who you thought it was," resumed the other, "but the fact remains that Hayden is the man with whom Miss Meredith unwittingly eloped, and that Hayden is the man who actually stole the plate and jewels. Further, the fact remains that Hayden — "

"Is dead," Dick supplemented grimly. "You are talking through your — " He coughed a little. "You are talking without any knowledge of what you are saying."

"He can't be dead," remarked the scientist calmly.

"But he is dead!" Dick insisted.

"He can't be dead," snapped the other abruptly. "It's perfectly silly to suppose such a thing. Why, I have proven absolutely, by the simplest rules of logic, that he stole the gold plate, therefore he cannot be dead. It's silly to say so."

Dick wasn't quite certain whether to be angry or amused. He decided to hold the matter in abeyance for the moment and see what other strange thing would develop.

"How long has he been dead?" continued the scientist.

"About two years."

"You know it?"

"Yes, I know it."

"How do you know it?"

"Because I attended his funeral," was the prompt reply. Dick saw a shadow of impatience flash into his visitor's face and instantly pass.

"How did he die?" queried the scientist.

"He was lost from his catboat," Dick answered. "He had gone out sailing, alone, while in a bathing-suit. Several hours after the

boat drifted in on the tide without him. Two or three weeks later the body was recovered."

"Ah!" exclaimed The Thinking Machine.

Then, for half an hour or so, he talked, and— as he went on, incisively, pointedly, dramatically, even, at times— Dick Herbert's eyes opened wider and wider. At the end he rose and gripped the scientist's slender white fingers heartily in his own with something approaching awe in his manner. Finally he put on his hat and they went out together.

That evening at eight o'clock Detective Mallory, Hutchinson Hatch, Mr. Randolph, Mr. Meredith, Mr. Greyton, and Dollie Meredith gathered in a parlour of the Greyton home by request of The Thinking Machine. They were waiting for something— no one knew exactly what.

Finally there came a tinkle at the bell and The Thinking Machine entered. Behind him came Dick Herbert, Dr. Clarence Walpole, and a stranger. Mr. Meredith glanced up quickly at Herbert, and Dollie lifted her chin haughtily with a stony stare which admitted of no compromise. Dick pleaded for recognition with his eyes, but it was no use, so he sat down where he could watch her unobserved.

Singular expressions flitted over the countenance of the Supreme Intelligence. Right here, now, he knew the earth was to be jerked out from under him and he was not at all certain that there would be anything left for him to cling to. This first impression was strengthened when The Thinking Machine introduced Doctor Walpole with an ostentatious squint at Mr. Mallory. The detective set his teeth hard.

The Thinking Machine sat down, stretched out his slender legs, turned his eyes upward, and adjusted his fingers precisely, tip to tip. The others watched him anxiously.

"We will have to go back a few years to get the real beginning of the events which have culminated so strangely within the past week," he said. "This was a close friendship of three young men in college. They were Mr. Herbert here, a

freshman, and Harry Meredith and George Francis Hayden, juniors. This friendship, not an unusual one in college, was made somewhat romantic by the young men styling themselves The Triangle. They occupied the same apartments and were exclusive to a degree. Of necessity Mr. Herbert was drawn from that exclusiveness, to a certain extent by his participation in football."

A germ of memory was working in Hatch's mind.

"At someone's suggestion three triangular watch charms were made, identical in every way save for initials on the back. They bore a symbol which was meaningless except to The Triangle. They were made to order and are, therefore, the only three of the kind in the world. Mr. Herbert has one now on his watch chain, with his own initials; there is another with the initials 'G. F. H.' in the lot of jewelry Mr. Mallory recovered from Mr. Herbert. The third is worn by Harry Meredith, who is now in Buenos Ayres. The American Consul there has confirmed, by cable, that fact.

"In the senior year the three young men of The Triangle were concerned in the mysterious disappearance of a valuable diamond ring. It was hushed up in college after it seemed established that Mr. Herbert was a thief. Knowing his own innocence and seeing what seemed to be an exclusive opportunity for Harry Meredith to have done what was charged, Mr. Herbert laid the matter to him, having at that time an interview with Harry's father. The result of that interview was more than ever to convince Mr. Meredith of Mr. Herbert's guilt. As a matter of fact, the thief in that case was George Francis Hayden."

There were little murmurs of astonishment, and Mr. Meredith turned and stared at Dick Herbert. Dollie gave him a little glance out of a corner of her eye, smiled, then sat up primly.

"This ended The Triangle," resumed the scientist. "A year or so later Mr. Herbert met Miss Meredith. About two years ago

George Francis Hayden was reported drowned from his catboat. This was confirmed, apparently, by the finding of his body, and an insurance company paid over a large sum— I think it was \$25,000— to a woman who said she was his wife. But George Francis Hayden was not drowned; he is alive now. It was a carefully planned fraud against the insurance company, and it succeeded.

"This, then, was the situation on last Thursday— the night of the masked ball at Seven Oaks— except that there had grown up a love affair between Miss Meredith and Mr. Herbert. Naturally, the father opposed this because of the incident in college. Both Miss Meredith and Mr. Herbert had invitations to that ball. It was an opportunity for an elopement and they accepted it. Mr. Herbert sent word to her what costume to wear; she did not know the nature of his.

"On Thursday afternoon Miss Meredith sent her jewel-casket, with practically all her jewels, to Mr. Herbert. She wanted them, naturally; they probably planned a trip abroad. The maid in this house took the casket and gave it into Mr. Herbert's own hands. Am I right?" He turned squarely and squinted at Dollie.

"Yes," she gasped quickly. She smiled distractingly upon her father and he made some violent remarks to himself.

"At this point, Fate, in the guise of a masked Burglar, saw fit to step into the affair," the scientist went on after a moment. "About nine-thirty, Thursday evening, while Mr. Herbert was alone, the masked Burglar, George Francis Hayden, entered Mr. Herbert's house, possibly thinking everyone was away. There, still masked, he met Mr. Herbert, who— by something the Burglar said and by the triangular charm he wore— recognised him as Harry Meredith. Remember, he thought he knew George Francis Hayden was dead.

"There were some words and a personal encounter between the two men. George Francis Hayden fired a shot which struck Mr. Herbert in the right shoulder — in front — took the jewel-

casket in which Mr. Herbert had placed his card of invitation to the ball, and went away, leaving Mr. Herbert senseless on the floor."

Dollie's face blanched suddenly and she gasped. When she glanced involuntarily at Dick she read the love-light in his eyes, and her colour returned with a rush.

"Several hours later, when Mr. Herbert recovered consciousness," the unruffled voice went on, "he went to Doctor Walpole, the nearest physician, and there the bullet was extracted and the wound dressed. The ball was thirty-two calibre?"

Doctor Walpole nodded.

"And Mr. Cunningham's revolver carried a thirty-eight," added the scientist. "Now we go back to the Burglar. He found the invitation in the casket, and the bold scheme, which later he carried out so perfectly, came to him as an inspiration. He went to the ball just as he was. Nerve, self-possession, and humour took him through. We know the rest of that.

"Naturally, in the circumstances, Mr. Herbert, believing that Harry Meredith was the thief, would say nothing to bring disgrace upon the name of the girl he loved. Instead, he saw Miss Meredith, who would not accept his denial then, and in order to get her first — explanations might come later — he confessed to the theft, whereupon they planned the second elopement.

"When Miss Meredith returned the plate by express there was no anticipation of a second theft. Here is where we get a better understanding of the mettle of the real Burglar — George Francis Hayden. He went back and got the plate from Seven Oaks. Instantly that upset the second elopement plan. Then Mr. Herbert undertook the search, got a clew, followed it, and recovered not only the plate, but a great lot of jewels."

There was a pause. A skyrocket ascended in Hatch's mind and burst, illuminating the whole tangled story. Detective Mallory sat dumbly, thinking harsh words. Mr. Meredith arose,

went over to Dick Herbert, and solemnly shook his hand, after which he sat down again. Dollie smiled charmingly.

"NOW THAT is what actually happened," said The Thinking Machine, after a little while. "How do I know it? Logic, logic, logic! The logical mind can start from any given point and go backward or forward, with equal facility, to a natural conclusion. This is as certain as that two and two make four— not sometimes, but all the time.

"First in this case I had Mr. Hatch's detailed examination of each circumstance. By an inspiration he connected Mr. Herbert and Miss Meredith with the affair and talked to both before the police had any knowledge at all of them. In other words, he reached at a bound what they took days to accomplish. After the second theft he came to me and related the story."

The reporter blushed modestly.

"Mr. Hatch's belief that the things that had happened to Mr. Herbert and Miss Meredith bore on the theft," resumed the scientist, "was susceptible of confirmation or refutation in only one way, this being so because of Mr. Herbert's silence— due to his loyalty. I saw that. But, before I went further, I saw clearly what had actually happened if I presupposed that there had been some connection. Thus came to me, I may say here, the almost certain knowledge that Miss Meredith had a brother, although I had never heard of him or her."

He paused a little and twiddled his thumbs thoughtfully.

"Suppose you give us just your line of reasoning," ventured Hatch.

"Well, I began with the blood-stains in the automobile to either bring Mr. Herbert into this affair or shut him out," replied the scientist. "You know how I made the blood tests. They showed conclusively that the blood on the cushion was not Mr. Herbert's. Remember, please, that, although I knew Miss Meredith had been in the automobile, I also knew she was not wounded; therefore the blood was that of someone else— the

man.

"Now, I knew Mr. Herbert had been wounded— he wouldn't say how. If at home, would he not go to the nearest physician? Probably. I got Doctor Walpole's name from the telephone-book — he being nearest the Herbert home— and sent Mr. Hatch there, where he learned of the wound in front, and of the thirty-two calibre ball. I already knew the police revolvers were thirty-eight calibre; therefore Mr. Herbert was not wounded while in the automobile.

"That removed Mr. Herbert as a possibility in the first theft, despite the fact that his invitation-card was presented at the door. It was reasonable to suppose that invitation had been stolen. Immediately after the plate was returned by express, Mr. Herbert effected a reconciliation with Miss Meredith. Because of this and for other reasons I could not bring myself to see that he was a party to the second theft, as I knew him to be innocent of the first. Yet, what happened to him? Why wouldn't he say something?

"All things must be imagined before they can be achieved; therefore imagination is one of the most vital parts of the scientific brain. In this instance I could only imagine why Mr. Herbert was silent. Remember, he was shot and wouldn't say who did it. Why? If it had been an ordinary thief— and I got the idea of a thief from the invitation-card being in other hands than his— he would not have hesitated to talk. Therefore, it was an extraordinary thief in that it connected with something near and dear to him. No one was nearer and dearer to him than Miss Meredith. Did she shoot him? No. Did her father shoot him? Probably not, but possibly. A brother? That began to look more reasonable. Mr. Herbert would probably not have gone so far to protect one less near to her than brother or father.

"For the moment I assumed a brother, not knowing. How did Mr. Herbert know this brother? Was it in his college days? Mr. Hatch brought me a list of the students of three years before his graduating year and there I found the name, Harry Meredith.

You see, step by step, pure logic was leading me to something tangible, definite. My next act was to see Mr. Meredith and ask for the address of his son — an only son — whom at that time I frankly believed was the real thief. But this son was in South America. That startled me a little and brought me up against the father as a possible thief. He was in Baltimore on that night.

"I accepted that as true at the moment after some— er— some pleasant words with Mr. Meredith. Then the question: Was the man who stole from Mr. Herbert, probably entering his place and shooting him, masked? Mr. Herbert said he was. I framed the question so as to bring Harry Meredith's name into it, much to Mr. Herbert's alarm. How had he recognised him as Harry Meredith? By something he said or wore? Mr. Herbert replied in the affirmative— both. Therefore I had a masked Burglar who could not have been either Harry Meredith or Harry Meredith's father. Who was he?

"I decided to let Mr. Hatch look into that point for me, and went to see Doctor Walpole. He gave me the bullet he had extracted from Mr. Herbert's shoulder. Mr. Hatch, shortly after, rushed in on me with the statement that Miss Meredith had admitted that Mr. Herbert had confessed to her. I could see instantly why he had confessed to her. Then Mr. Hatch undertook for me the investigation of Herbert's and Harry Meredith's careers in college. He remembered part of it and unearthed the affair of The Triangle and the theft of a diamond ring.

"I had asked Mr. Hatch to find for me if Harry Meredith and Mr. Herbert had had a mutual intimate in college. They had: George Francis Hayden, the third member of the Triangle. Then the question seemed to be solved, but Mr. Hatch upset everything when he said that Mr. Hayden was dead. I went immediately to see Mr. Herbert. From him I learned that, although Mr. Hayden was supposed to be dead and buried, there was no positive proof of it; the body recovered had been in the water three weeks and was consequently almost

unrecognisable. Therefore, the theft came inevitably to Mr. Hayden. Why? Because the Burglar had been recognised by something he said and wore. It would have been difficult for Mr. Herbert to recognise a masked man so positively unless the masked man wore something he absolutely knew, or said something he absolutely knew. Mr. Herbert thought with reason that the masked man was Harry Meredith, but, with Harry Meredith in South America, the thief was incontrovertibly George Francis Hayden. There was no going behind that.

"After a short interview as to Hayden, during which Mr. Herbert told me more of The Triangle and the three watch charms, he and I went out investigating. He took me to the room where he had found the plate and jewels— a place in an apartment-house which this gentleman manages." The scientist turned to the stranger, who had been a silent listener. "He identified an old photograph of George Francis Hayden as an occupant of an apartment.

"Mr. Herbert and I searched the place. My growing idea, based on the established knavery of George Francis Hayden, that he was the real thief in the college incident, was proven when I found this ring there— the ring that was stolen at that time— with the initials of the owner in it."

The Thinking Machine produced the ring and offered it to Detective Mallory, who had allowed the earth to slip away from him slowly but surely, and he examined it with a new and absorbed interest.

"Mr. Herbert and I learned of the insurance fraud in another manner — that is, when we knew that George Francis Hayden was not dead, we knew there had been a fraud. Mr. Hayden has been known lately as Chester Goodrich. He has been missing since Mr. Herbert, in his absence, recovered the plate and the jewels in his apartments. I may add that, up to the day of the masked ball, he was protected from casual recognition by a full beard. He is now clean-shaven."

The Thinking Machine glanced at Mr. Mallory.

"Your man— Downey, I think it was— did excellent work," he said, "in tracing Miss Meredith from the time she left the automobile until she returned home, and later leading you to Mr. Herbert. It was not strange that you should have been convinced of his guilt when we consider the goods found in his possession and also the wound in his shoulder. The only trouble is he didn't get to the real insides of it."

That was all. For a long time there was silence. Dollie Meredith's pretty face was radiant and her eyes were fastened on her father. Mr. Meredith glanced at her, cleared his throat several times, then arose and offered his hand to Dick Herbert.

"I have done you an injustice, sir," he said gravely. "Permit me to apologise. I think perhaps my daughter— "

That was superfluous. Dollie was already beside Dick, and a rousing, smacking, resounding kiss echoed her father's words. Dick liked it some and was ready for more, but Dollie impetuously flung her arms around the neck of The Thinking Machine, and he — passed to his reward.

"You dear old thing!" she gurgled. "You're just too sweet and cute for anything."

"Dear me! Dear me!" fussed The Thinking Machine. "Don't do that. It annoys me exceedingly."

SOME THREE months later, when the search for George Francis Hayden had become only lukewarm, this being three days before Miss Meredith's wedding to Dick Herbert, she received a small box containing a solitaire ring and a note. It was brief:

In memory of one night in the woods and of what happened there, permit me to give this— you can't return it. It is one of the few things honest money from me ever paid for.

Bill, the Burglar.

While Dollie examined the ring with mingled emotions Dick

stared at the postmark on the package.

"It's a corking good clew," he said enthusiastically.

Dollie turned to him, recognising a menace in the words, and took the paper which bore the postmark from his hands.

"Let's pretend," she said gently— "let's pretend we don't know where it came from!"

Dick stared a little and kissed her.

22. A Piece of String

IT WAS just midnight. Somewhere near the center of a cloud of tobacco smoke, which hovered over one corner of the long editorial room, Hutchinson Hatch, reporter, was writing. The rapid click-click of his type writer went on and on, broken only when he laid aside one sheet to put in another. The finished pages were seized upon one at a time by an office boy and rushed off to the city editor. That astute person glanced at them for information and sent them on to the copy desk, whence they were shot down into that noisy, chaotic wilderness, the composing room.

The story was what the phlegmatic head of the copy desk, speaking in the vernacular, would have called a "beaut." It was about the kidnapping that afternoon of Walter Francis, the four-year-old son of a wealthy young broker, Stanley Francis. An alternative to the abduction had been proposed in the form of a gift to certain persons, identity unknown, of fifty thousand dollars. Francis, not unnaturally, objected to the bestowal of so vast a sum upon anyone. So he told the police, and while they were making up their minds the child was stolen. It happened in the usual way— closed carriage, and all that sort of thing.

Hatch was telling the story graphically, as he could tell a story when there was one to be told. He glanced at the clock, jerked out another sheet of copy, and the office boy scuttled away with it.

"How much more?" called the city editor.

"Just a paragraph," Hatch answered.

His writer clicked on merrily for a couple of minutes and then stopped. The last sheet of copy was taken away, and he rose and stretched his legs.

"Some guy wants yer at the 'phone," an office boy told him.

"Who is it?" asked Hatch.

"Search me," replied the boy. "Talks like he'd been eatin' pickles."

Hatch went into the booth indicated. The man at the other end was Professor Augustus S. F. X. Van Dusen. The reporter instantly recognized the crabbed, perpetually irritated voice of the noted scientist, The Thinking Machine.

"That you, Mr. Hatch?" came over the wire.

"Yes."

"Can you do something for me immediately?" he queried. "It is very important."

"Certainly."

"Now listen closely," directed The Thinking Machine. "Take a car from Park-sq., the one that goes toward Worcester through Brookline. About two miles beyond Brookline is Randall's Crossing. Get off there and go to your right until you come to a small white house. In front of this house, a little to the left and across an open field, is a large tree. It stands just in the edge of a dense wood. It might be better to approach it through the wood, so as not to attract attention. Do you follow me?"

"Yes," Hatch replied. His imagination was leading him a chase.

"Go to this tree now, immediately, to-night," continued The Thinking Machine. "You will find a small hole in it near the level of your eye. Feel in that hole, and see what is there— no matter what it is— then return to Brookline and telephone me. It is of the greatest importance."

The reporter was thoughtful for a moment; it sounded like a page from a Dumas romance.

"What's it all about?" he asked curiously.

"Will you go?" came the counter question.

"Yes, certainly."

"Good-by."

Hatch heard a click as the receiver was hung up at the other end. He shrugged his shoulders, said "Good-night" to the city editor, and went out. An hour later he was at Randall's Crossing. The night was dark— so dark that the road was barely visible. The car whirled on, and as its lights were swallowed up Hatch set out to find the white house. He came upon it at last, and, turning, faced across an open field toward the wood. Far away over there outlined vaguely against the distant glow of the city, was a tall tree.

Having fixed its location, the reporter moved along for a hundred yards or more to where the wood ran down to the road. Here he climbed a fence and stumbled on through the dark, doing sundry injuries to his shins. After a disagreeable ten minutes he reached the tree.

With a small electric flash light he found the hole. It was only a little larger than his hand, a place where decay had eaten its way into the tree trunk. For just a moment he hesitated about putting his hand into it— he didn't know what might be there. Then, with a grim smile, he obeyed orders.

He felt nothing save crumbings of decayed wood, and finally dragged out a handful, only to spill it on the ground. That couldn't be what was meant. For the second time he thrust in his hand, and after a deal of grabbing about produced— a piece of string. It was just a plain, ordinary, common piece of string— white string. He stared at it and smiled.

"I wonder what Van Dusen will make of that?" he asked himself.

Again his hand was thrust into the hole. But that was all— the piece of string. Then came another thought, and with that due regard for detail which made him a good reporter he went looking around the big tree for a possible second opening of

some sort. He found none.

About three quarters of an hour later he stepped into an all-night drug store in Brookline and 'phoned to The Thinking Machine. There was an instant response to his ring.

"Well, well, what did you find?" came the query.

"Nothing to interest you, I imagine," replied the reporter grimly. "Just a piece of string."

"Good, good!" exclaimed The Thinking Machine. "What does it look like?"

"Well," replied the newspaper man judicially, "it's just a piece of white string— cotton, I imagine— about six inches long."

"Any knots in it?"

"Wait till I see."

He was reaching into his pocket to take it out, when the startled voice of The Thinking Machine came over the line.

"Didn't you leave it there?" it demanded.

"No; I have it in my pocket."

"Dear me!" exclaimed the scientist irritably. "That's bad. Well, has it any knots in it?" he asked with marked resignation.

Hatch felt that he had committed the unpardonable sin.

"Yes," he replied after an examination. "It has two knots in it— just plain knots— about two inches apart."

"Single or double knots?"

"Single knots."

"Excellent! Now, Mr. Hatch, listen. Untie one of those knots — it doesn't matter which one— and carefully smooth out the string. Then take it and put it back where you found it. 'Phone me as soon after that as you can."

"Now, to-night?"

"Now, immediately."

"But— but— " began the astonished reporter.

"It is a matter of the utmost consequence," the irritated voice assured him. "You should not have taken the string. I told you merely to see what was there. But as you have brought it

away you must put it back as soon as possible. Believe me, it is of the highest importance. And don't forget to 'phone me."

The sharp, commanding tone stirred the reporter to new action and interest. A car was just going past the door, outward bound. He raced for it and got aboard. Once settled, he untied one of the knots, straightened out the string, and fell to wondering what sort of fool's errand he was on.

"Randall's Crossing!" called the conductor at last.

Hatch left the car and retraced his tortuous way along the road and through the wood to the tall tree, found the hole, and had just thrust in his hand to replace the string when he heard a woman's voice directly behind him, almost in his ear. It was a calm, placid, convincing sort of voice. It said:

"Hands up!"

Hatch was a rational human being with ambitions and hopes for the future; therefore his hands went up without hesitation. "I knew something would happen," he told himself.

He turned to see the woman. In the darkness he could only dimly trace a tall, slender figure. Steadily poised just a couple of dozen inches from his nose was a revolver. He could see that without any difficulty. It glinted a little, even in the gloom, and made itself conspicuous.

"Well," asked the reporter at last, as he stood reaching upward, "it's your move."

"Who are you?" asked the woman. Her voice was steady and rather pleasant.

The reporter considered the question in the light of all he didn't know. He felt it wouldn't be a sensible thing to say just who he was. Somewhere at the end of this thing The Thinking Machine was working on a problem; he was presumably helping in a modest, unobtrusive sort of way; therefore he would be cautious.

"My name is Williams," he said promptly. "Jim Williams," he added circumstantially.

"What are you doing here?"

Another subject for thought. That was a question he couldn't answer; he didn't know what he was doing there; he was wondering himself. He could only hazard a guess, and he did that with trepidation.

"I came from him," he said with deep meaning.

"Who?" demanded the woman suspiciously.

"It would be useless to name him," replied the reporter.

"Yes, yes, of course," the woman mused. "I understand."

There was a little pause. Hatch was still watching the revolver. He had a lively interest in it. It had not moved a hair's breadth since he first looked at it; hanging up there in the night it fairly stared him out of countenance.

"And the string?" asked the woman at last.

Now the reporter felt that he was in the mire. The woman herself relieved this new embarrassment.

"Is it in the tree?" she went on.

"Yes."

"How many knots are in it?"

"One."

"One?" she repeated eagerly. "Put your hand in there and hand me the string. No tricks, now!"

Hatch complied with a certain deprecatory manner which he intended should convey to her the impression that there would be no tricks. As she took the string her fingers brushed against his. They were smooth and delicate. He knew that even in the dark.

"And what did he say?" she went on.

Having gone this far without falling into anything, the reporter was willing to plunge— felt that he had to, as a matter of fact.

"He said yes," he murmured without shifting his eyes from the revolver.

"Yes?" the woman repeated again eagerly. "Are you sure?"

"Yes," said the reporter again. The thought flashed through his mind that he was tangling up somebody's affairs sadly— he

didn't know whose. Anyhow, it was a matter of no consequence to him, as long as that revolver stared at him that way.

"Where is it?" asked the woman.

Then the earth slipped out from under him. "I don't know," he replied weakly.

"Didn't he give it to you?"

"Oh, no. He— he wouldn't trust me with it."

"How can I get it, then?"

"Oh, he'll fix it all right," Hatch assured her soothingly. "I think he said something about to-morrow night."

"Where?"

"Here."

"Thank God!" the woman gasped suddenly. Her tone betrayed deep emotion; but it wasn't so deep that she lowered the revolver.

There was a long pause. Hatch was figuring possibilities. How to get possession of the revolver seemed the imminent problem. His hands were still in the air, and there was nothing to indicate that they were not to remain there indefinitely. The woman finally broke the silence.

"Are you armed?"

"Oh, no."

"Truthfully?"

"Truthfully."

"You may lower your hands," she said, as if satisfied; "then go on ahead of me straight across the field to the road. Turn to your left there. Don't look back under any circumstances. I shall be behind you with this revolver pointing at your head. If you attempt to escape or make any outcry I shall shoot. Do you believe me?"

The reporter considered it for a moment. "I'm firmly convinced of it," he said at last.

They stumbled on to the road, and there Hatch turned as directed. Walking along in the shadows with the tread of small feet behind him he first contemplated a dash for liberty; but that

would mean giving up the adventure, whatever it was. He had no fear for his personal safety as long as he obeyed orders, and he intended to do that implicitly. And besides, The Thinking Machine had his slender finger in the pie somewhere. Hatch knew that, and knowing it was a source of deep gratification.

Just now he was taking things at face value, hoping that with their arrival at whatever place they were bound for he would be further enlightened. Once he thought he heard the woman sobbing, and started to look back. Then he remembered her warning, and thought better of it. Had he looked back he would have seen her stumbling along, weeping, with the revolver dangling limply at her side.

At last, a mile or more farther on, they began to arrive somewhere. A house sat back some distance from the road.

"Go in there!" commanded his captor.

He turned in at the gate, and five minutes later stood in a comfortably furnished room on the ground floor of a small house. A dim light was burning. The woman turned it up. Then almost defiantly she threw aside her veil and hat and stood before him. Hatch gasped. She was pretty— bewilderingly pretty — and young and graceful and all that a young woman should be. Her cheeks were flushed.

"You know me, I suppose?" she exclaimed.

"Oh yes, certainly," Hatch assured her.

And saying that, he knew he had never seen her before.

"I suppose you thought it perfectly horrid of me to keep you with your hands up like that all the time; but I was dreadfully frightened," the woman went on, and she smiled a little uncertainly. "But there wasn't anything else to do."

"It was the only thing," Hatch agreed.

"Now I'm going to ask you to write and tell him just what happened," she resumed. "And tell him, too, that the other matter must be arranged immediately. I'll see that your letter is delivered. Sit here!"

She picked up the revolver from the table beside her and

placed a chair in position. Hatch walked to the table and sat down. Pen and ink lay before him. He knew now he was trapped. He couldn't write a letter to that vague "him" of whom he had talked so glibly, about that still more vague "it" — whatever that might be. He sat dumbly staring at the paper.

"Well?" she demanded suspiciously.

"I— I can't write it," he confessed suddenly.

She stared at him coldly for a moment as if she had suspected just that, and he in turn stared at the revolver with a new and vital interest. He felt the tension, but saw no way to relieve it.

"You are an imposter!" she blurted out at last. "A detective?"

Hatch didn't deny it. She backed away toward a bell call near the door, watching him closely, and rang vigorously several times. After a little pause the door opened, and two men, evidently servants, entered.

"Take this gentleman to the rear room up stairs," she commanded without giving them a glance, "and lock him up. Keep him under close guard. If he attempts to escape, stop him! That's all."

Here was another page from a Dumas romance. The reporter started to explain; but there was a merciless gleam, danger even, in the woman's eyes, and he submitted to orders. So, he was led up stairs a captive, and one of the men took a place on guard inside the room.

The dawn was creeping on when Hatch fell asleep. It was about ten o'clock when he awoke, and the sun was high. His guard, wide eyed and alert, still sat beside the door. For several minutes the reporter lay still, seeking vainly some sort of explanation of what was happening. Then, cheerfully:

"Good-morning."

The guard merely glared at him.

"May I inquire your name?" the reporter asked.

There was no answer.

"Or the lady's name?"

No answer.

"Or why I am where I am?"

Still no answer.

"What would you do," Hatch went on casually, "if I should try to get out of here?"

The guard handled his revolver carelessly. The reporter was satisfied. "He is not deaf, that's certain," he told himself.

He spent the remainder of the morning yawning and wondering what The Thinking Machine was about; also he had a few casual reflections as to the mental state of his city editor at his failure to appear and follow up the kidnapping story. He finally dismissed all these ideas with a shrug of his shoulders, and sat down to wait for whatever was coming.

It was in the early afternoon that he heard laughter in the next room. First there was a woman's voice, then the shrill cackle of a child. Finally he distinguished some words.

"You ticky!" exclaimed the child, and again there was the laugh.

The reporter understood "you ticky," coupled with the subsequent peal, to be a sort of abbreviated English for "you tickle." After awhile the merriment died away and he heard the child's insistent demand for something else.

"You be hossie."

"No, no," the woman expostulated.

"Yes, you be hossie."

"No, let Morris be hossie."

"No, no. You be hossie."

That was all. Evidently some one was "hossie," because there was a sound of romping; but finally even that died away. Hatch yawned away another hour or so under the constant eye of his guard, and then began to grow restless. He turned on the guard savagely.

"Isn't anything ever going to happen?" he demanded.

The guard didn't say.

"You'll never convict yourself on your own statement," Hatch

burst out again in disgust.

He stretched out on a couch, bored by the sameness which had characterized the last few hours of his adventure. His attention was attracted by some movement at the door, and he looked up. His guard heard, too, and with revolver in hand went to the door, carefully unlocking it. After a few hurriedly whispered words he left the room, and Hatch was meditating an instant rush for a window, when the woman entered. She had the revolver now. She was deathly white and gripped the weapon menacingly. She did not lock the door— only closed it— but with her own person and the attention compelling revolver she blocked the way.

"What is it now?" asked Hatch wearily.

"You must not speak or call, or make the slightest sound," she whispered tensely. "If you do, I'll kill you. Do you understand?"

Hatch confessed by a nod that he understood. He also imagined that he understood this sudden change in guard, and the warning. It was because some one was about to enter or had entered the house. His conjecture was partially confirmed instantly by a distant rapping on a door.

"Not a sound, now!" whispered the woman.

From somewhere below he heard the sound of steps as one of the servants answered the knock. After a short wait he heard two voices mumbling. Suddenly one was raised clearly.

"Why, Worcester can't be that far," it protested irritably.

Hatch knew. It was The Thinking Machine. The woman noted a change in his manner and drew back the hammer of the revolver. The reporter saw the idea. He didn't dare call. That would be suicide. Perhaps he could attract attention, though; drop a key, for instance. The sound might reach The Thinking Machine and be interpreted aright. One hand was in a pocket, and slowly he was drawing out a key. He would risk it. Maybe—

Then came a new sound. It was the patter of small feet. The

guarded door was pushed open and a tousle-headed child, a boy, ran in.

"Mama, mama!" he called loudly. He ran to the woman and clutched at her skirts.

"Oh, my baby! what have you done?" she asked piteously.

"We are lost, lost!"

"Me 'faid," the child went on.

With the door— his avenue of possible escape— open, Hatch did not drop the key. Instead, he gazed at the woman, then down at the child. From below he again heard The Thinking Machine.

"How far is the car track, then?"

The servant answered something. There was a sound of steps, and the front door closed. Hatch knew that The Thinking Machine had come and gone; yet he was strangely calm about it, quite himself, despite the fact that a nervous finger still lay on the trigger of the pistol.

From his refuge behind his mother's skirts the boy peered around at Hatch shyly. The reporter gazed, gazed, all eyes, and then was convinced. The boy was Walter Francis, the kidnapped boy whose pictures were being published in every newspaper of a dozen cities. Here was a story — the story — the superlative story.

"Mrs. Francis, if you wouldn't mind letting down that hammer— " he suggested modestly. "I assure you I contemplate no harm, and you— you are very nervous."

"You know me, then?" she asked.

"Only because the child there, Walter, called you mama."

Mrs. Francis lowered the revolver hammer so recklessly that Hatch involuntarily dodged. And then came a scene, a scene with tears in it, and all those things which stir men, even reporters. Finally the woman dropped the revolver on the floor and swept the boy up in her arms with a gesture of infinite tenderness. He cuddled there, content. At that moment Hatch could have walked out the door, but instead he sat down. He

was just beginning to get interested.

"They sha'n't take you!" sobbed the mother.

"There is no immediate danger," the reporter assured her.

"The man who came here for that purpose has gone.

Meanwhile, if you will tell me the facts, perhaps— perhaps I may be able to be of some assistance."

Mrs. Francis looked at him, startled. "Help me?"

"If you will explain, perhaps I can do something," said Hatch again.

Somewhere back in a remote recess of his brain he was remembering. And as it became clearer he was surprised that he had not remembered sooner. It was a story of marital infelicity, and its principals were Stanley Francis and his wife— this bewilderingly pretty young woman before him. It had been only eight or nine months back.

Technically she had deserted Stanley Francis. There had been some violent scene and she left their home and little son. Soon afterward she went to Europe. It had been rumored that divorce proceedings would follow, or at least a legal separation, but nothing had ever come of the rumors. All this Mrs. Francis told to Hatch in little incoherent bursts, punctuated with sobs and tears.

"He struck me, he struck me!" she declared with a flush of anger and shame, "and I went then on impulse. I was desperate. Later, even before I went to Europe, I knew the legal status of the affair; but the thought of my boy lingered, and I resolved to come back and get him— abduct him, if necessary. I did that, and I will keep him if I have to kill the one who opposes me."

Hatch saw the mother instinct here, that tigerish ferocity of love which stops at nothing.

"I conceived the plan of demanding fifty thousand dollars of my husband under threat of abduction," Mrs. Francis went on. "My purpose was to make it appear that the plot was that of professional— what would you call it? — kidnappers. But I did not send the letter demanding this until I had perfected all my

plans and knew I could get the boy. I wanted my husband to think it was the work of others, at least until we were safe in Europe, because even then I imagined there would be a long legal fight.

"After I stole the boy and he recognized me, I wanted him as my own, absolutely safe from legal action by his father. Then I wrote to Mr. Francis, telling him I had Walter, and asking that in pity to me he legally give me the boy by a document of some sort. In that letter I told how he might signify his willingness to do this; but of course I would not give my address. I placed a string, the one you saw, in that tree after having tied two knots in it. It was a silly, romantic means of communication he and I used years ago in my girlhood when we both lived near here. If he agreed that I should have the child, he was to come or send some one last night and untie one of the two knots."

Then, to Hatch, the intricacies passed away. He understood clearly. Instead of going to the police with the second letter from his wife, Francis had gone to The Thinking Machine. The Thinking Machine sent the reporter to untie the knot, which was an answer of "Yes" to Mrs. Francis's request for the child. Then she would have written giving her address, and there would have been a clue to the child's whereabouts. It was all perfectly clear now.

"Did you specifically mention a string in your letter?" he asked.

"No. I merely stated that I would expect his answer in that place, and would leave something there by which he could signify 'Yes' or 'No,' as he did years ago. The string was one of the odd little ideas of my girlhood. Two knots meant 'No'; one knot meant 'Yes'; and if the string was found by anyone else it meant nothing."

This, then, was why The Thinking Machine did not tell him at first that he would find a string and instruct him to untie one of the knots in it. The scientist had seen that it might have been one of the other tokens of the old romantic days.

"When I met you there," Mrs. Francis resumed. "I believed you were an imposter— I don't know why, I just believed it— yet your answers were in a way correct. For fear you were not what you seemed— that you were a detective— I brought you here to keep you until I got the child's release. You know the rest."

The reporter picked up the revolver and whirled it in his fingers. The action, apparently, did not disturb Mrs. Francis.

"Why did you remain here so long after you got the child?" asked Hatch.

"I believed it was safer than in a city," she answered frankly. "The steamer on which I planned to sail for Europe with my boy leaves to-morrow. I had intended going to New York to-night to catch it; but now— "

The reporter glanced down at the child. He had fallen asleep in his mother's arms. His tiny hand clung to her. The picture was a pretty one. Hatch made up his mind.

"Well, you'd better pack up," he said. "I'll go with you to New York and do all I can."

It was on the New York-bound train several hours later that Hatch turned to Mrs. Francis with an odd smile.

"Why didn't you load that revolver?" he asked.

"Because I was horribly afraid some one would get hurt with it," she replied laughingly.

She was gay with that gentle happiness of possession which blesses woman for the agonies of motherhood, and glanced from time to time at the berth across the aisle where her baby was asleep. Looking upon it all, Hatch was content. He didn't know his exact position in law; but that didn't matter, after all.

HUTCHINSON HATCH'S exclusive story of the escape to Europe of Mrs. Francis and her boy was remarkably complete; but all the facts were not in it. It was a week or so later that he detailed them to The Thinking Machine.

"I knew it," said the scientist at the end. "Francis came to me, and I interested myself in the case, practically knowing

every fact from his statement. When you heard me speak in the house where you were a prisoner I was there merely to convince myself that the mother did have the baby. I heard it call her and went away satisfied. I knew you were there, too, because you had failed to 'phone me the second time as I expected, and I knew intuitively what you would do when you got the real facts about Mrs. Francis and her baby. I went away so that the field might be clear for you to act. Francis himself is a detestable puppy. I told him so."

And that was all that was ever said about it.

23. The Tragedy of the Life Raft

'Twas A SHABBY picture altogether— old Peter Ordway in his office; the man shriveled, bent, cadaverous, aquiline of feature, with skin like parchment, and cunning, avaricious eyes; the room gaunt and curtainless, with smoke-grimed windows, dusty, cheerless walls, and threadbare carpet, worn through here and there to the rough flooring beneath. Peter Ordway sat in a swivel chair in front of an ancient roll-top desk. Opposite, at a typewriter upon a table of early vintage, was his secretary— one Walpole, almost a replica in middle age of his employer, seedy and servile, with lips curled sneeringly as a dog's.

Familiarly in the financial district, Peter Ordway was "The Usurer," a title which was at once a compliment to his merciless business sagacity and an expression of contempt for his methods. He was the money lender of the Street, holding in cash millions which no one dared to estimate. In the last big panic the richest man in America, the great John Morton in person, had spent hours in the shabby office, begging for the loan of the few millions in currency necessary to check the market. Peter Ordway didn't fail to take full advantage of his pressing need. Mr. Morton got the millions on collateral worth five times the sum borrowed, but Peter Ordway fixed the rate of interest, a

staggering load.

Now we have the old man at the beginning of a day's work. After glancing through two or three letters which lay open on his desk, he picked up at last a white card, across the face of which was scribbled in pencil three words only:

One million dollars!

Ordinarily it was a phrase to bring a smile to his withered lips, a morsel to roll under his wicked old tongue; but now he stared at it without comprehension. Finally he turned to his secretary, Walpole.

"What is this?" he demanded querulously, in his thin, rasping voice.

"I don't know, sir," was the reply. "I found it in the morning's mail, sir, addressed to you."

Peter Ordway tore the card across, and dropped it into the battered wastebasket beside him, after which he settled down to the ever-congenial occupation of making money.

On the following morning the card appeared again, with only three words, as before:

One million dollars!

Abruptly the aged millionaire wheeled around to face Walpole, who sat regarding him oddly.

"It came the same way, sir," the seedy little secretary explained hastily, "in a blank envelope. I saved the envelope, sir, if you would like to see it."

"Tear it up!" Peter Ordway directed sharply.

Reduced to fragments, the envelope found its way into the wastebasket. For many minutes Peter Ordway sat with dull, lusterless eyes, gazing through the window into the void of a leaden sky. Slowly, as he looked, the sky became a lashing, mist-covered sea, a titanic chaos of water; and upon its troubled bosom rode a life raft to which three persons were clinging. Now the frail craft was lifted up, up to the dizzy height of a giant wave; now it shot down sickeningly into the hissing trough beyond; again, for minutes it seemed altogether lost in the far-

plunging spume. Peter Ordway shuddered and closed his eyes.

On the third morning the card, grown suddenly ominous, appeared again:

One million dollars!

Peter Ordway came to his feet with an exclamation that was almost a snarl, turning, twisting the white slip nervously in his talonlike fingers. Astonished, Walpole half arose, his yellow teeth bared defensively, and his eyes fixed upon the millionaire.

"Telephone Blake's Agency," the old man commanded, "and tell them to send a detective here at once."

Came in answer to the summons a suave, smooth-faced, indolent-appearing young man, Fragson by name, who sat down after having regarded with grave suspicion the rickety chair to which he was invited. He waited inquiringly.

"Find the person— man or woman— who sent me that!"

Peter Ordway flung the card and the envelope in which it had come upon a leaf of his desk. Fragson picked them up and scrutinized them leisurely. Obviously the handwriting was that of a man, an uneducated man, he would have said. The postmark on the envelope was Back Bay; the time of mailing seven p.m. on the night before. Both envelope and card were of a texture which might be purchased in a thousand shops.

"One million dollars!" Fragson read. "What does it mean?"

"I don't know," the millionaire answered.

"What do you think it means?"

"Nor do I know that, unless— unless it's some crank, or— or blackmailer. I've received three of them— one each morning for three days."

Fragson placed the card inside the envelope with irritating deliberation, and thrust it into his pocket, after which he lifted his eyes quite casually to those of the secretary, Walpole. Walpole, who had been staring at the two men tensely, averted his shifty gaze, and busied himself at his desk.

"Any idea who sent them?" Fragson was addressing Peter Ordway, but his eyes lingered lazily upon Walpole.

"No." The word came emphatically, after an almost imperceptible instant of hesitation.

"Why"— and the detective turned to the millionaire curiously— "why do you think it might be blackmail? Has any one any knowledge of any act of yours that— "

Some swift change crossed the parchmentlike face of the old man. For an instant he was silent; then his avaricious eyes leaped into flame; his fingers closed convulsively on the arms of his chair.

"Blackmail may be attempted without reason," he stormed suddenly. "Those cards must have some meaning. Find the person who sent them."

Fragson arose thoughtfully, and drew on his gloves.

"And then?" he queried.

"That's all!" curtly. "Find him, and let me know who he is."

"Do I understand that you don't want me to go into his motives? You merely want to locate the man?"

"That understanding is correct— yes."

...a lashing, mist-covered sea; a titanic chaos of water, and upon its troubled bosom rode a life raft to which three persons were clinging....

Walpole's crafty eyes followed his millionaire employer's every movement as he entered his office on the morning of the fourth day. There was nervous restlessness in Peter Ordway's manner; the parchment face seemed more withered; the pale lips were tightly shut. For an instant he hesitated, as if vaguely fearing to begin on the morning's mail. But no fourth card had come! Walpole heard and understood the long breath of relief which followed upon realization of this fact.

Just before ten o'clock a telegram was brought in. Peter Ordway opened it:

One million dollars!

Three hours later at his favorite table in the modest restaurant where he always went for luncheon, Peter Ordway picked up his napkin, and a white card fluttered to the floor:

One million dollars!

Shortly after two o'clock a messenger boy entered his office, whistling, and laid an envelope on the desk before him:

One million dollars!

Instinctively he had known what was within.

At eight o'clock that night, in the shabby apartments where he lived with his one servant, he answered an insistent ringing of the telephone bell.

"What do you want?" he demanded abruptly.

"One million dollars!" The words came slowly, distinctly.

"Who are you?"

"One million dollars!" faintly, as an echo.

Again Fragon was summoned, and was ushered into the cheerless room where the old millionaire sat cringing with fear, his face reflecting some deadly terror which seemed to be consuming him. Incoherently he related the events of the day. Fragon listened without comment, and went out.

On the following morning— Sunday— he returned to report. He found his client propped upon a sofa, haggard and worn, with eyes feverishly aglitter.

"Nothing doing," the detective began crisply. "It looked as if we had a clew which would at least give us a description of the man, but—" He shook his head.

"But that telegram— some one filed it?" Peter Ordway questioned huskily. "The message the boy brought—"

"The telegram was inclosed in an envelope with the money necessary to send it, and shoved through the mail slot of a telegraph office in Cambridge," the detective informed him explicitly. "That was Friday night. It was telegraphed to you on Saturday morning. The card brought by the boy was handed in at a messenger agency by some street urchin, paid for, and delivered to you. The telephone call was from an automatic station in Brookline. A thousand persons use it every day."

For the first time in many years, Peter Ordway failed to appear at his office Monday morning. Instead he sent a note to

his secretary:

Bring all important mail to my apartment to-night at eight o'clock. On your way uptown buy a good revolver with cartridges to fit.

Twice that day a physician— Doctor Anderson— was hurriedly summoned to Peter Ordway's side. First there had been merely a fainting spell; later in the afternoon came complete collapse. Doctor Anderson diagnosed the case tersely.

"Nerves," he said. "Overwork, and no recreation."

"But, doctor, I have no time for recreation!" the old millionaire whined. "My business— "

"Time!" Doctor Anderson growled indignantly. "You're seventy years old, and you're worth fifty million dollars. The thing you must have if you want to spend any of that money is an ocean trip— a good, long ocean trip— around the world, if you like."

"No, no, no!" It was almost a shriek. Peter Ordway's evil countenance, already pallid, became ashen; abject terror was upon him. . . . a lashing, mist-covered sea; a titanic chaos of water, and upon its troubled bosom rode a life raft to which three persons were clinging. . . .

"No, no, no!" he mumbled, his talon fingers clutching the physician's hand convulsively. "I'm afraid, afraid!"

The slender thread which held sordid soul to withered body was severed that night by a well-aimed bullet. Promptly at eight o'clock Walpole had arrived, and gone straight to the room where Peter Ordway sat propped up on a sofa. Nearly an hour later the old millionaire's one servant, Mrs. Robinson, answered the doorbell, admitting Mr. Franklin Pingree, a well-known financier. He had barely stepped into the hallway when there came a reverberating crash as of a revolver shot from the room where Peter Ordway and his secretary were.

Together Mr. Pingree and Mrs. Robinson ran to the door. Still propped upon the couch, Peter Ordway sat— dead. A bullet had penetrated his heart. His head was thrown back, his mouth

was open, and his right hand dangled at his side. Leaning over the body was his secretary, Walpole. In one hand he held a revolver, still smoking. He didn't turn as they entered, but stood staring down upon the man blankly. Mr. Pingree disarmed him from behind.

Hereto I append a partial transcript of a statement made by Frederick Walpole immediately following his arrest on the charge of murdering his millionaire employer. This statement he repeated in substance at the trial:

I am forty-eight years old. I had been in Mr. Ordway's employ for twenty-two years. My salary was eight dollars a week... I went to his apartments on the night of the murder in answer to a note. (Note produced.) I bought the revolver and gave it to him. He loaded it and thrust it under the covering beside him on the sofa... He dictated four letters and was starting on another. I heard the door open behind me. I thought it was Mrs. Robinson, as I had not heard the front-door bell ring.

Mr. Ordway stopped dictating, and I looked at him. He was staring toward the door. He seemed to be frightened. I looked around. A man had come in. He seemed very old. He had a flowing white beard and long white hair. His face was ruddy, like a seaman's.

"Who are you?" Mr. Ordway asked.

"You know me all right," said the man. "We were together long enough on that craft." (Or "raft," prisoner was not positive.)

"I never saw you before," said Mr. Ordway. "I don't know what you mean."

"I have come for the reward," said the man.

"What reward?" Mr. Ordway asked.

"One million dollars!" said the man.

Nothing else was said. Mr. Ordway drew his revolver and fired. The other man must have fired at the same instant, for Mr. Ordway fell back dead. The man disappeared. I ran to Mr. Ordway and picked up the revolver. He had dropped it. Mr. Pingree and Mrs. Robinson came in...

Reading of Peter Ordway's will disclosed the fact that he had bequeathed unconditionally the sum of one million dollars to his secretary, Walpole, for "loyal services." Despite Walpole's denial of any knowledge of this bequest, he was immediately placed under arrest. At the trial, the facts appeared as I have related them. The district attorney summed up briefly. The motive was obvious— Walpole's desire to get possession of one million dollars in cash. Mr. Pingree and Mrs. Robinson, entering the room directly after the shot had been fired, had met no one coming out, as they would have had there been another man— there was no other egress. Also, they had heard only one shot— and that shot had found Peter Ordway's heart. Also, the bullet which killed Peter Ordway had been positively identified by experts as of the same make and same caliber as those others in the revolver Walpole had bought. The jury was out twenty minutes. The verdict was guilty. Walpole was sentenced to death.

It was not until then that "The Thinking Machine"— otherwise Professor Augustus S. F. X. Van Dusen, Ph. D., F. R. S., M. D., LL. D., et cetera, et cetera, logician, analyst, master mind in the sciences— turned his crabbed genius upon the problem.

Five days before the date set for Walpole's execution, Hutchinson Hatch, newspaper reporter, introduced himself into The Thinking Machine's laboratory, bringing with him a small roll of newspapers. Incongruously enough, they were old friends, these two— on one hand, the man of science, absorbed in that profession of which he was already the master, small, almost grotesque in appearance, and living the life of a recluse; on the other, a young man of the world, worldly, enthusiastic, capable, indefatigable.

So it came about The Thinking Machine curled himself in a great chair, and sat for nearly two hours partially submerged in newspaper accounts of the murder and of the trial. The last paper finished, he dropped his enormous head back against his

chair, turned his petulant, squinting eyes upward, and sat for minute after minute staring into nothingness.

"Why," he queried, at last, "do you think he is innocent?"

"I don't know that I do think it," Hatch replied. "It is simply that attention has been attracted to Walpole's story again because of a letter the governor received. Here is a copy of it."

The Thinking Machine read it:

You are about to allow the execution of an innocent man. Walpole's story on the witness stand was true. He didn't kill Peter Ordway. I killed him for a good and sufficient reason.

"Of course," the reporter explained, "the letter wasn't signed. However, three handwriting experts say it was written by the same hand that wrote the 'One million dollar' slips. Incidentally the prosecution made no attempt to connect Walpole's handwriting with those slips. They couldn't have done it, and it would have weakened their case."

"And what," inquired the diminutive scientist, "does the governor purpose doing?"

"Nothing," was the reply. "To him it is merely one of a thousand crank letters."

"He knows the opinions of the experts?"

"He does. I told him."

"The governor," remarked The Thinking Machine gratuitously, "is a fool." Then: "It is sometimes interesting to assume the truth of the improbable. Suppose we assume Walpole's story to be true, assuming at the same time that this letter is true— what have we?"

Tiny, cobwebby lines of thought furrowed the domelike brow as Hatch watched; the slender fingers were brought precisely tip to tip; the pale-blue eyes narrowed still more.

"If," Hatch pointed out, "Walpole's attorney had been able to find a bullet mark anywhere in that room, or a single isolated drop of blood, it would have proven that Peter Ordway did fire as Walpole says he did, and— "

"If Walpole's story is true," The Thinking Machine went on

serenely, heedless of the interruption, "we must believe that a man— say, Mr. X— entered a private apartment without ringing. Very well. Either the door was unlocked, he entered by a window, or he had a false key. We must believe that two shots were fired simultaneously, sounding as one. We must believe that Mr. X was either wounded or the bullet mark has been overlooked; we must believe Mr. X went out by the one door at the same instant Mr. Pingree and Mrs. Robinson entered. We must believe they either did not see him, or they lied."

"That's what convicted Walpole," Hatch declared. "Of course, it's impossible— —"

"Nothing is impossible, Mr. Hatch," stormed The Thinking Machine suddenly. "Don't say that. It annoys me exceedingly."

Hatch shrugged his shoulders, and was silent. Again minute after minute passed, and the scientist sat motionless, staring now at a plan of Peter Ordway's apartment he had found in a newspaper, the while his keen brain dissected the known facts.

"After all," he announced, at last, "there's only one vital question: Why Peter Ordway's deadly fear of water?"

The reporter shook his head blankly. He was never surprised any more at The Thinking Machine's manner of approaching a problem. Never by any chance did he take hold of it as any one else would have.

"Some personal eccentricity, perhaps," Hatch suggested hopefully. "Some people are afraid of cats, others of —"

"Go to Peter Ordway's place," The Thinking Machine interrupted tartly, "and find if it has been necessary to replace a broken windowpane anywhere in the building since Mr. Ordway's death."

"You mean, perhaps, that Mr. X, as you call him, may have escaped—" the newspaper man began.

"Also find out if there was a curtain hanging over or near the door where Mr. X must have gone out."

"Right!"

"We'll assume that the room where Ordway died has been

gone over inch by inch in the search for a stray shot," the scientist continued. "Let's go farther. If Ordway fired, it was probably toward the door where Mr. X entered. If Mr. X left the door open behind him, the shot may have gone into the private hall beyond, and may be buried in the door immediately opposite." He indicated on the plan as he talked. "This second door opens into a rear hall. If both doors chanced to be open—"

Hatch came to his feet with blazing eyes. He understood. It was a possibility no one had considered. Ordway's shot, if he had fired one, might have lodged a hundred feet away.

"Then if we find a bullet mark—" he questioned tensely.

"Walpole will not go to the electric chair."

"And if we don't?"

"We will look farther," said The Thinking Machine. "We will look for a wounded man of perhaps sixty years, who is now, or has been, a sailor; who is either clean-shaven or else has a close-cropped beard, probably dyed— a man who may have a false key to the Ordway apartment— the man who wrote this note to the governor."

"You believe, then," Hatch demanded, "that Walpole is innocent?"

"I believe nothing of the sort," snapped the scientist. "He's probably guilty. If we find no bullet mark, I'm merely saying what sort of man we must look for."

"But— but how do you know so much about him— what he looks like?" asked the reporter, in bewilderment.

"How do I know?" repeated the crabbed little scientist. "How do I know that two and two make four, not sometimes, but all the time? By adding the units together. Logic, that's all— logic, logic!"

While Hatch was scrutinizing the shabby walls of the old building where Peter Ordway had lived his miserly life, The Thinking Machine called on Doctor Anderson, who had been Peter Ordway's physician for a score of years. Doctor Anderson couldn't explain the old millionaire's aversion to water, but perhaps if the scientist went farther back in his inquiries there was an old man, John Page, still living who had been Ordway's classmate in school. Doctor Anderson knew of him because he had once treated him at Peter Ordway's request. So The Thinking Machine came to discuss this curious trait of character with John Page. What the scientist learned didn't appear, but whatever it was it sent him to the public library, where he spent several hours pulling over the files of old newspapers.

All his enthusiasm gone, Hatch returned to report.

"Nothing," he said. "No trace of a bullet."

"Any windowpanes changed or broken?"

"Not one."

"There were curtains, of course, over the door through which Mr. X entered Ordway's room." It was not a question.

"There were. They're there yet."

"In that case," and The Thinking Machine raised his squinting eyes to the ceiling, "our sailorman was wounded."

"There is a sailorman, then?" Hatch questioned eagerly.

"I'm sure I don't know," was the astonishing reply. "If there is, he answers generally the description I gave. His name is Ben Holderby. His age is not sixty; it's fifty-eight."

The newspaper man took a long breath of amazement. Surely here was the logical faculty lifted to the nth power! The Thinking Machine was describing, naming, and giving the age of a man whose existence he didn't even venture to assert— a man who never had been in existence so far as the reporter knew! Hatch fanned himself weakly with his hat.

"Odd situation, isn't it?" asked The Thinking Machine. "It only proves that logic is inexorable— that it can only fail when the units fail; and no unit has failed yet. Meantime, I shall leave you to find Holderby. Begin with the sailors' lodging houses, and don't scare him off. I can add nothing to the description except that he is probably using another name."

Followed a feverish two days for Hatch— a hurried, nightmarish effort to find a man who might or might not exist, in order to prevent a legal murder. With half a dozen other clever men from his office, he finally achieved the impossible.

"I've found him!" he announced triumphantly over the telephone to The Thinking Machine. "He's stopping at Werner's, in the North End, under the name of Benjamin Goode. He is clean-shaven, his hair and brows are dyed black, and he is wounded in the left arm."

"Thanks," said The Thinking Machine simply. "Bring Detective Mallory, of the bureau of criminal investigation, and come here to-morrow at noon prepared to spend the day. You might go by and inform the governor, if you like, that Walpole will not be

electrocuted Friday."

Detective Mallory came at Hatch's request— came with a mouthful of questions into the laboratory, where The Thinking Machine was at work.

"What's it all about?" he demanded.

"Precisely at five o'clock this afternoon a man will try to murder me," the scientist informed him placidly, without lifting his eyes. "I'd like to have you here to prevent it."

Mallory was much given to outbursts of amazement; he humored himself now:

"Who is the man? What's he going to try to kill you for? Why not arrest him now?"

"His name is Benjamin Holderby," The Thinking Machine answered the questions in order. "He'll try to kill me because I shall accuse him of murder. If he should be arrested now, he wouldn't talk. If I told you whom he murdered, you wouldn't believe it."

Detective Mallory stared without comprehension.

"If he isn't to try to kill you until five o'clock," he asked, "why send for me at noon?"

"Because he may know you, and if he watched and saw you enter he wouldn't come. At half past four you and Mr. Hatch will step into the adjoining room. When Holderby enters, he will face me. Come behind him, but don't lift a finger until he threatens me. If you have to shoot— kill! He'll be dangerous until he's dead."

It was just two minutes of five o'clock when the bell rang, and Martha ushered Benjamin Holderby into the laboratory. He was past middle age, powerful, with deep-bronzed face and the keen eyes of the sea. His hair and brows were dyed— badly dyed; his left arm hung limply. He found The Thinking Machine alone.

"I got your letter, sir," he said respectfully. "If it's a yacht, I'm willing to ship as master; but I'm too old to do much—"

"Sit down, please," the little scientist invited courteously,

dropping into a chair as he spoke. "There are one or two questions I should like to ask. First" — the petulant blue eyes were raised toward the ceiling; the slender fingers came together precisely, tip to tip— "first: Why did you kill Peter Ordway?"

Fell an instant's amazed silence. Benjamin Holderby's muscles flexed, the ruddy face was contorted suddenly with hideous anger, the sinewy right hand closed until great knots appeared in the tendons. Possibly The Thinking Machine had never been nearer death than in that moment when the sailorman towered above him— 'twas giant and weakling. The tiger was about to spring. Then, suddenly as it had come, anger passed from Holderby's face; came instead curiosity, bewilderment, perplexity.

The silence was broken by the sinister click of a revolver. Holderby turned his head slowly, to face Detective Mallory, stared at him oddly, then drew his own revolver, and passed it over, butt foremost.

No word had been spoken. Not once had The Thinking Machine lowered his eyes.

"I killed Peter Ordway," Holderby explained distinctly, "for good and sufficient reasons."

"So you wrote the governor," the scientist observed. "Your motive was born thirty-two years ago?"

"Yes." The sailor seemed merely astonished.

"On a raft at sea?"

"Yes."

"There was murder done on that raft?"

"Yes."

"Instigated by Peter Ordway, who offered you— "

"One million dollars— yes."

"So Peter Ordway is the second man you have killed?"

"Yes."

With mouth agape, Hutchinson Hatch listened greedily; he had— they had— saved Walpole! Mallory's mind was a chaos.

What sort of tommyrot was this? This man confessing to a murder for which Walpole was to be electrocuted! His line of thought was broken by the petulant voice of The Thinking Machine.

"Sit down, Mr. Holderby," he was saying, "and tell us precisely what happened on that raft."

'Twas a dramatic story Benjamin Holderby told— a tragedy tale of the sea— a tale of starvation and thirst torture and madness, and ceaseless battling for life— of crime and greed and the power of money even in that awful moment when death seemed the portion of all. The tale began with the foundering of the steamship Neptune, Liverpool to Boston, ninety-one passengers and crew, some thirty-two years ago. In mid-ocean she was smashed to bits by a gale, and went down. Of those aboard only nine persons reached shore alive.

Holderby told the story simply:

"God knows how many of us went through that storm; it raged for days. There were ten of us on our raft when the ship settled, and by dusk of the second day there were only six— one woman, and one child, and four men. The waves would simply smash over us, and when we came to daylight again there was some one missing. There was little enough food and water aboard, anyway, so the people dropping off that way was really what saved— what saved two of us at the end. Peter Ordway was one, and I was the other.

"The first five days were bad enough— short rations, little or no water, no sleep, and all that; but what came after was hell! At the end of that fifth day there were only five of us— Ordway and me, the woman and child, and another man. I don't know whether I went to sleep or was just unconscious; anyway, when I came to there were only the three of us left. I asked Ordway where the woman and child was. He said they were washed off while I was asleep.

"'And a good thing,' he says.

"'Why?' I says.

"'Too many mouths to feed,' he says. 'And still too many.' He meant the other man. 'I've been looking at the rations and the water,' he says. 'There's enough to keep three people alive three days, but if there were only two people— me and you, for instance?' he says.

"'You mean throw him off?' I says.

"'You're a sailor,' says he. 'If you go, we all go. But we may not be picked up for days. We may starve or die of thirst first. If there were only two of us, we'd have a better chance. I'm worth millions of dollars,' he says. 'If you'll get rid of this other fellow, and we ever come out alive, I'll give you one million dollars!' I didn't say anything. 'If there were only two of us,' says he, 'we would increase our chances of being saved one-third. One million dollars!' says he. 'One million dollars!'

"I expect I was mad with hunger and thirst and sleeplessness and exhaustion. Perhaps he was, too. I know that, regardless of the money he offered, his argument appealed to me. Peter Ordway was a coward; he didn't have the nerve; so an hour later I threw the man overboard, with Peter Ordway looking on.

"Days passed somehow— God knows— and when I came to I had been picked up by a sailing vessel. I was in an asylum for months. When I came out, I asked Ordway for money. He threatened to have me arrested for murder. I pestered him a lot, I guess, for a little later I found myself shanghaied, on the high seas. I didn't come back for thirty years or so. I had almost forgotten the thing until I happened to see Peter Ordway's name in a paper. Then I wrote the slips and mailed them to him. He knew what they meant, and set a detective after me. Then I began hating him all over again, worse than ever. Finally I thought I'd go to his house and make a holdup of it— one million dollars! I don't think I intended to kill him; I thought he'd give me money. I didn't know there was any one with him. I talked to him, and he shot me. I killed him."

Fell a long silence. The Thinking Machine broke it:

"You entered the apartment with a skeleton key?"

"Yes."

"And after the shot was fired, you started out, but dodged behind the curtain at the door when you heard Mr. Pingree and Mrs. Robinson coming in?"

"Yes."

Suddenly Hatch understood why The Thinking Machine had asked him to ascertain if there were curtains at that door. It was quite possible that in the excitement Mr. Pingree and Mrs. Robinson would not have noticed that the man who killed Peter Ordway actually passed them in the doorway.

"I think," said The Thinking Machine, "that that is all. You understand, Mr. Mallory, that this confession is to be presented to the governor immediately, in order to save Walpole's life?" He turned to Holderby. "You don't want an innocent man to die for this crime?"

"Certainly not," was the reply. "That's why I wrote to the governor. Walpole's story was true. I was in court, and heard it." He glanced at Mallory curiously. "Now, if necessary, I'm willing to go to the chair."

"It won't be necessary," The Thinking Machine pointed out. "You didn't go to Peter Ordway's place to kill him— you went there for money you thought he owed you— he fired at you— you shot him. It's hardly self-defense, but it was not premeditated murder."

Detective Mallory whistled. It was the only satisfactory vent for the tangled mental condition which had befallen him. Shortly he went off with Holderby to the governor's office; and an hour later Walpole, deeply astonished, walked out of the death cell— a free man.

Meanwhile Hutchinson Hatch had some questions to ask of The Thinking Machine.

"Logic, logic, Mr. Hatch!" the scientist answered, in that perpetual tone of irritation. "As an experiment, we assumed the truth of Walpole's story. Very well. Peter Ordway was afraid of water. Connect that with the one word 'raft' or 'craft' in

Walpole's statement of what the intruder had said. Connect that with his description of that man— 'ruddy, like a seaman.' Add them up, as you would a sum in arithmetic. You begin to get a glimmer of cause and effect, don't you? Peter Ordway was afraid of the water because of some tragedy there in which he had played a part. That was a tentative surmise. Walpole's description of the intruder said white hair and flowing white beard. It is a common failing of men who disguise themselves to go to the other extreme. I went to the other extreme in conjecturing Holderby's appearance— clean-shaven or else close-cropped beard and hair— dyed. Since no bullet mark was found in the building— remember, we are assuming Walpole's statement to be true— the man Ordway shot at carried the bullet away with him. Ergo, a seaman with a pistol wound. Seamen, as a rule, stop at the sailors' lodging houses. That's all."

"But— but you knew Holderby's name— his age!" the reporter stammered.

"I learned them in my effort to account for Ordway's fear of water," was the reply. "An old friend, John Page, whom I found through Doctor Anderson, informed me that he had seen some account in a newspaper thirty-two years before, at the time of the wreck of the Neptune, of Peter Ordway's rescue from a raft at sea. He and one other man were picked up. The old newspaper files in the libraries gave me Holderby's name as the other survivor, together with his age. You found Holderby. I wrote to him that I was about to put a yacht in commission, and he had been recommended to me— that is, Benjamin Goode had been recommended. He came in answer to the advertisement. You saw everything else that happened."

"And the so-called 'one million dollar' slips?"

"Had no bearing on the case until Holderby wrote to the governor," said The Thinking Machine. "In that note he confessed the killing; ergo I began to see that the 'One million dollar' slips probably indicated some enormous reward Ordway had offered Holderby. Walpole's statement, too, covers this

point. What happened on the raft at sea? I didn't know. I followed an instinct, and guessed." The distinguished scientist arose. "And now," he said, "begone about your business. I must go to work."

Hatch started out, but turned at the door. "Why," he asked, "were you so anxious to know if any windowpane in the Ordway house had been replaced or was broken?"

"Because," the scientist didn't lift his head, "because a bullet might have smashed one, if it was not to be found in the woodwork. If it smashed one, our unknown Mr. X was not wounded."

Upon his own statement, Benjamin Holderby was sentenced to ten years in prison; at the end of three months he was transferred to an asylum after an examination by alienists.

24. The Problem of the Crystal Gazer

WITH HIDEOUS, goggling eyes the great god Budd sat cross-legged on a pedestal and stared stolidly into the semi-darkness. He saw, by the wavering light of a peacock lamp which swooped down from the ceiling with wings outstretched, what might have been a nook in a palace of East India. Draperies hung here, there, everywhere; richly embroidered divans sprawled about; fierce tiger rugs glared up from the floor; grotesque idols grinned mirthlessly in unexpected corners; strange arms were grouped on the walls. Outside the trolley cars clanged blatantly.

The single human figure was a distinct contradiction of all else. It was that of a man in evening dress, smoking. He was fifty, perhaps sixty, years old with the ruddy colour of one who has lived a great deal out of doors. There was only a touch of gray in his abundant hair and moustache. His eyes were steady and clear, and indolent.

For a long time he sat, then the draperies to his right parted and a girl entered. She was a part of the picture of which the

man was a contradiction. Her lustrous black hair flowed about her shoulders; lambent mysteries lay in her eyes. Her dress was the dress of the East. For a moment she stood looking at the man and then entered with light tread.

"Varick Sahib," she said, timidly, as if it were a greeting. "Do I intrude?" Her voice was softly guttural with the accent of her native tongue.

"Oh no, Jadeh. Come in," said the man.

She smiled frankly and sat down on a hassock near him.

"My brother?" she asked.

"He is in the cabinet."

Varick had merely glanced at her and then continued his thoughtful gaze into vacancy. From time to time she looked up at him shyly, with a touch of eagerness, but there was no answering interest in his manner. His thoughts were far away.

"May I ask what brings you this time, Sahib?" she inquired at last.

"A little deal in the market," responded Varick, carelessly. "It seems to have puzzled Adhem as much as it did me. He has been in the cabinet for half an hour."

He stared on musingly as he smoked, then dropped his eyes to the slender, graceful figure of Jadeh. With knees clasped in her hands she leaned back on the hassock deeply thoughtful. Her head was tilted upward and the flickering light fell full on her face. It crossed Varick's mind that she was pretty, and he was about to say so as he would have said it to any other woman, when the curtains behind them were thrown apart and they both glanced around.

Another man— an East Indian— entered. This man was Adhem Singh, the crystal gazer, in the ostentatious robes of a seer. He, too, was a part of the picture. There was an expression of apprehension, mingled with some other impalpable quality on his strong face.

"Well, Adhem?" inquired Varick.

"I have seen strange things, Sahib," replied the seer,

solemnly. "The crystal tells me of danger."

"Danger?" repeated Varick with a slight lifting of his brows.

"Oh well, in that case I shall keep out of it."

"Not danger to your business, Sahib," the crystal gazer went on with troubled face, "but danger in another way."

The girl, Jadeh, looked at him with quick, startled eyes and asked some question in her native tongue. He answered in the same language, and she rose suddenly with terror stricken face to fling herself at Varick's feet, weeping. Varick seemed to understand too, and looked at the seer in apprehension.

"Death?" he exclaimed. "What do you mean?"

Adhem was silent for a moment and bowed his head respectfully before the steady, inquiring gaze of the white man.

"Pardon, Sahib," he said at last. "I did not remember that you understood my language."

"What is it?" insisted Varick, abruptly. "Tell me."

"I cannot, Sahib."

"You must," declared the other. He had arisen commandingly. "You must."

The crystal gazer crossed to him and stood for an instant with his hand on the white man's shoulder, and his eyes studying the fear he found in the white man's face.

"The crystal, Sahib," he began. "It tells me that— that—"

"No, no, brother," pleaded the girl.

"Go on," Varick commanded.

"It grieves me to say that which will pain one whom I love as I do you, Sahib," said the seer, slowly. "Perhaps you had rather see for yourself?"

"Well, let me see then," said Varick. "Is it in the crystal?"

"Yes, by the grace of the gods."

"But I can't see anything there," Varick remembered. "I've tried scores of times."

"I believe this will be different, Sahib," said Adhem, quietly. "Can you stand a shock?"

Varick shook himself a little impatiently.

"Of course," he replied. "Yes, yes."

"A very serious shock?"

Again there was an impatient twist of Varick's shoulders.

"Yes, I can stand anything," he exclaimed shortly. "What is it? Let me see."

He strode toward that point in the draperies where Adhem had entered while the girl on her knees, sought with entreating hands to stop him.

"No, no, no," she pleaded. "No."

"Don't do that," Varick expostulated in annoyance, but gently he stooped and lifted her to her feet. "I am not a child—or a fool."

He threw aside the curtains. As they fell softly behind him he heard a pitiful little cry of grief from Jadeh and set his teeth together hard.

He stood in the crystal cabinet. It was somewhat larger than an ordinary closet and had been made impenetrable to the light by hangings of black velvet. For awhile he stood still so that his eyes might become accustomed to the utter blackness, and gradually the sinister fascinating crystal ball appeared, faintly visible by its own mystic luminosity. It rested on a pedestal of black velvet.

Varick was accustomed to his surroundings— he had been in the cabinet many times. Now he dropped down on a stool in front of the table whereon the crystal lay and leaning forward on his arms stared into its limpid depths. Unblinkingly for one, two, three minutes he sat there with his thoughts in a chaos.

After awhile there came a change in the ball. It seemed to glow with a growing light other than its own. Suddenly it darkened completely, and out of this utter darkness grew shadowy, vague forms to which he could give no name. Finally a veil seemed lifted for the globe grew brighter and he leaned forward, eagerly, fearfully. Another veil melted away and a still brighter light illumined the ball.

Now Varick was able to make out objects. Here was a table

littered with books and papers, there a chair, yonder a shadowy mantel. Gradually the light grew until his tensely fixed eyes pained him, but he stared steadily on. Another quick brightness came and the objects all became clear. He studied them incredulously for a few seconds, and then he recognized what he saw. It was a room— his study— miles away in his apartments.

A sudden numb chilliness seized him but he closed his teeth hard and gazed on. The outlines of the crystal were disappearing, now they were gone and he saw more. A door opened and a man entered the room into which he was looking. Varick gave a little gasp as he recognized the man. It was— himself. He watched the man— himself— as he moved about the study aimlessly for a time as if deeply troubled, then as he dropped into a chair at the desk. Varick read clearly on the vision-face those emotions which he was suffering in person. As he looked the man made some hopeless gesture with his hands — his hands— and leaned forward on the desk with his head on his arms. Varick shuddered.

For a long time, it seemed, the man sat motionless, then Varick became conscious of another figure— a man— in the room. This figure had come into the vision from his own view point. His face was averted— Varick did not recognize the figure, but he saw something else and started in terror. A knife was in the hand of the unknown, and he was creeping stealthily toward the unconscious figure in the chair— himself— with the weapon raised.

An inarticulate cry burst from Varick's colourless lips— a cry of warning— as he saw the unknown creep on, on, on toward— himself. He saw the figure that was himself move a little and the unknown leaped. The upraised knife swept down and was buried to the handle. Again a cry, an unintelligible shriek, burst from Varick's lips; his heart fluttered and perspiration poured from his face. With incoherent mutterings he sank forward helplessly.

How long he remained there he didn't know, but at last he

compelled himself to look again. The crystal glittered coldly on its pedestal of velvet but that hideous thing which had been there was gone. The thought came to him to bring it back, to see more, but repulsive fear, terror seized upon him. He rose and staggered out of the cabinet. His face was pallid and his hands clasped and unclasped nervously.

Jadeh was lying on a divan sobbing. She leaped to her feet when he entered, and looking into his face she knew. Again she buried her face in her hands and wept afresh. Adhem stood with moody eyes fixed on the great god Budd.

"I saw— I understand," said Varick between his teeth, "but— I don't believe it."

"The crystal never lies, Sahib," said the seer, sorrowfully.

"But it can't be— that," Varick declared protestingly.

"Be careful, Sahib, oh, be careful," urged the girl.

"Of course I shall be careful," said Varick, shortly. Suddenly he turned to the crystal gazer and there was a menace in his tone. "Did such a thing ever appear to you before?"

"Only once, Sahib."

"And did it come true?"

Adhem inclined his head, slowly.

"I may see you tomorrow," exclaimed Varick suddenly. "This room is stifling. I must go out."

With twitching hands he drew on a light coat over his evening dress, picked up his hat and rushed out into the world of realities. The crystal gazer stood for a moment while Jadeh clung to his arm, tremblingly.

"It is as the gods will," he said sadly, at last.

Professor Augustus S. F. X. Van Dusen— The Thinking Machine— received Howard Varick in the small reception room and invited him to a seat. Varick's face was ashen; there were dark lines under his eyes and in them there was the glitter of an ungovernable terror. Every move showed the nervousness which gripped him. The Thinking Machine squinted at him curiously,

then dropped back into his big chair.

For several minutes Varick said nothing; he seemed to be struggling to control himself. Suddenly he burst out:

"I'm going to die some day next week. Is there any way to prevent it?"

The Thinking Machine turned his great yellow head and looked at him in a manner which nearly indicated surprise.

"Of course if you've made up your mind to do it," he said irritably, "I don't see what can be done." There was a trace of irony in his voice, a coldness which brought Varick around a little. "Just how is it going to happen?"

"I shall be murdered— stabbed in the back— by a man whom I don't know," Varick rushed on desperately.

"Dear me, dear me, how unfortunate," commented the scientist. "Tell me something about it. But here—" He arose and went into his laboratory. After a moment he returned and handed a glass of some effervescent liquid to Varick, who gulped it down. "Take a minute to pull yourself together," instructed the scientist.

He resumed his seat and sat silent with his long, slender fingers pressed tip to tip. Gradually Varick recovered. It was a fierce fight for the mastery of emotion.

"Now," directed The Thinking Machine at last, "tell me about it."

Varick told just what happened lucidly enough, and The Thinking Machine listened with polite interest. Once or twice he turned and looked at his visitor.

"Do you believe in any psychic force?" Varick asked once.

"I don't disbelieve in anything until I have proven that it cannot be," was the answer. "The God who hung a sun up there has done other things which we will never understand." There was a little pause, then: "How did you meet this man, Adhem Singh?"

"I have been interested for years in the psychic, the occult, the things we don't understand," Varick replied. "I have a

comfortable fortune, no occupation, no dependents and made this a sort of hobby. I have studied it superficially all over the world. I met Adhem Singh in India ten years ago, afterwards in England where he went through Oxford with some financial assistance from me, and later here. Two years ago he convinced me that there was something in crystal gazing— call it telepathy, self hypnotism, sub-conscious mental action— what you will. Since then the science, I can call it nothing else, has guided me in every important act of my life."

"Through Adhem Singh?"

"Yes."

"And under a pledge of secrecy, I imagine— that is secrecy as to the nature of his revelations?"

"Yes."

"Any taint of insanity in your family?"

Varick wondered whether the question was in the nature of insolent reproof, or was a request for information. He construed it as the latter.

"No," he answered. "Never a touch of it."

"How often have you consulted Mr. Singh?"

"Many times. There have been occasions when he would tell me nothing because, he explained, the crystal told him nothing. There have been other times when he advised me correctly. He has never given me bad advice even in intricate stock operations, therefore I have been compelled to believe him in all things."

"You were never able to see anything yourself in the crystal until this vision of death, last Tuesday night you say?"

"That was the first."

"How do you know the murder is to take place at any given time— that is next week, as you say?"

"That is the information Adhem Singh gave me," was the reply. "He can read the visions— they mean more to him than —"

"In other words, he makes it a profession?" interrupted the

scientist.

"Yes."

"Go on."

"The horror of the thing impressed me so— both of us— that he has at my request twice invoked the vision since that night. He, like you, wanted to know when it would happen. There is a calendar by weeks in my study; that is, only one week is shown on it at a time. The last time the vision appeared he noted this calendar. The week was that beginning next Sunday, the 21st of this month. The only conclusion we could reach was it would happen during that week."

The Thinking Machine arose and paced back and forth across the room deeply thoughtful. At last he stopped before his visitor.

"It's perfectly amazing," he commented emphatically. "It approaches nearer to the unbelievable than anything I have ever heard of."

Varick's response was a look that was almost grateful.

"You believe it impossible then?" he asked, eagerly.

"Nothing is impossible," declared the other aggressively.

"Now, Mr. Varick, you are firmly convinced that what you saw was prophetic? That you will die in that manner, in that place?"

"I can't believe anything else— I can't," was the response.

"And you have no idea of the identity of the murderer-to-be, if I may use that phrase?"

"Not the slightest. The figure was wholly unfamiliar to me."

"And you know— you know— that the room you saw in the crystal was yours?"

"I know that absolutely. Rugs, furniture, mantel, books, everything was mine."

The Thinking Machine was again silent for a time.

"In that event," he said at last, "the affair is perfectly simple. Will you place yourself in my hands and obey my directions implicitly?"

"Yes." There was an eager, hopeful note in Varick's voice

now.

"I am going to try to disarrange the affairs of Fate a little bit," explained the scientist gravely. "I don't know what will happen but it will be interesting to try to throw the inevitable, the pre-ordained I might say, out of gear, won't it?"

With a quizzical, grim expression about his thin lips The Thinking Machine went to the telephone in an adjoining room and called some one. Varick heard neither the name nor what was said, merely the mumble of the irritable voice. He glanced up as the scientist returned.

"Have you any servants— a valet for instance?" asked the scientist.

"Yes, I have an aged servant, a valet, but he is now in France, I gave him a little vacation. I really don't need one now as I live in an apartment house— almost a hotel."

"I don't suppose you happen to have three or four thousand dollars in your pocket?"

"No, not so much as that," was the puzzled reply. "If it's your fee—"

"I never accept fees," interrupted the scientist. "I interest myself in affairs like these because I like them. They are good mental exercise. Please draw a cheque for, say four thousand dollars, to Hutchinson Hatch."

"Who is he?" asked Varick. There was no reply. The cheque was drawn and handed over without further comment.

It was fifteen or twenty minutes later that a cab pulled up in front of the house. Hutchinson Hatch, reporter, and another man whom he introduced as Philip Byrne were ushered in. As Hatch shook hands with Varick The Thinking Machine compared them mentally. They were relatively of the same size and he bobbed his head as if satisfied.

"Now, Mr. Hatch," he instructed, "take this cheque and get it cashed immediately, then return here. Not a word to anybody."

Hatch went out and Byrne discussed politics with Varick until he returned with the money. The Thinking Machine thrust the

bills into Byrne's hand and he counted it, afterward stowing it away in a pocket.

"Now, Mr. Varick, the keys to your apartment, please," asked the scientist.

They were handed over and he placed them in his pocket. Then he turned to Varick.

"From this time on," he said, "your name is John Smith. You are going on a trip, beginning immediately, with Mr. Byrne here. You are not to send a letter, a postal, a telegram or a package to anyone; you are to buy nothing, you are to write no checks, you are not to speak to or recognize anyone, you are not to telephone or attempt in any manner to communicate with anyone, not even me. You are to obey Mr. Byrne in everything he says."

Varick's eyes had grown wider and wider as he listened.

"But my affairs— my business?" he protested.

"It is a matter of your life or death," said The Thinking Machine shortly.

For a moment Varick wavered a little. He felt that he was being treated like a child.

"As you say," he said finally.

"Now, Mr. Byrne," continued the scientist, "you heard those instructions. It is your duty to enforce them. You must lose this man and yourself. Take him away somewhere to another place. There is enough money there for ordinary purposes. When you learn that there has been an arrest in connection with a certain threat against Mr. Varick, come back to Boston— to me— and bring him. That's all."

Mr. Byrne arose with a business like air.

"Come on, Mr. Smith," he commanded.

Varick followed him out of the room.

Here was a table littered with books and papers, there a chair, yonder a shadowy mantel... A door opened and a man entered the room... moved about the study aimlessly for a time as if deeply troubled, then dropped into a chair at the desk...

made some hopeless gesture with his hands and leaned forward on the desk with his head on his arms... another figure in the room... knife in his hand... creeping stealthily toward the unconscious figure in the chair with the knife raised... the unknown crept on, on, on...

There was a blinding flash, a gush of flame and smoke, a sharp click and through the fog came the unexcited voice of Hutchinson Hatch, reporter.

"Stay right where you are, please."

"That ought to be a good picture," said The Thinking Machine.

The smoke cleared and he saw Adhem Singh standing watching with deep concern a revolver in the hand of Hatch, who had suddenly arisen from the desk in Varick's room. The Thinking Machine rubbed his hands briskly.

"Ah, I thought it was you," he said to the crystal gazer. "Put down the knife, please. That's right. It seems a little bold to have interfered with what was to be like this, but you wanted too much detail, Mr. Singh. You might have murdered your friend if you hadn't gone into so much trivial theatrics."

"I suppose I am a prisoner?" asked the crystal gazer.

"You are," The Thinking Machine assured him cheerfully.

"You are charged with the attempted murder of Mr. Varick. Your wife will be a prisoner in another half hour with all those who were with you in the conspiracy."

He turned to Hatch, who was smiling broadly. The reporter was thinking of that wonderful flash-light photograph in the camera that The Thinking Machine held,— the only photograph in the world, so far as he knew, of a man in the act of attempting an assassination.

"Now, Mr. Hatch," the scientist went on, "I will 'phone to Detective Mallory to come here and get this gentleman, and also to send men and arrest every person to be found in Mr. Singh's home. If this man tries to run— shoot."

The scientist went out and Hatch devoted his attention to his

sullen prisoner. He asked half a dozen questions and receiving no answers he gave it up as hopeless. After awhile Detective Mallory appeared in his usual state of restrained astonishment and the crystal grazer was led away.

Then Hatch and The Thinking Machine went to the Adhem Singh house. The police had preceded them and gone away with four prisoners, among them the girl Jadeh. They obtained an entrance through the courtesy of a policeman left in charge and sought out the crystal cabinet. Together they bowed over the glittering globe as Hatch held a match.

"But I still don't see how it was done," said the reporter after they had looked at the crystal.

The Thinking Machine lifted the ball and replaced it on its pedestal half a dozen times apparently trying to locate a slight click. Then he fumbled all around the table, above and below. At his suggestion Hatch lifted the ball very slowly, while the scientist slid his slender fingers beneath it.

"Ah," he exclaimed at last. "I thought so. It's clever, Mr. Hatch, clever. Just stand here a few minutes in the dark and I'll see if I can operate it for you."

He disappeared and Hatch stood staring at the crystal until he was developing a severe case of the creeps himself. Just then a light flashed in the crystal, which had been only dimly visible, and he found himself looking into— the room in Howard Varick's apartments, miles away. As he looked, startled, he saw The Thinking Machine appear in the crystal and wave his arms. The creepiness passed instantly in the face of this obvious attempt to attract his attention.

It was later that afternoon that The Thinking Machine turned the light of his analytical genius on the problem for the benefit of Hatch and Detective Mallory.

"Charlatanism is a luxury which costs the peoples of the world incredible sums," he began. "It had its beginning, of course, in the dark ages when man's mind grasped at some tangible evidence of an Infinite Power, and through its very

eagerness was easily satisfied. Then quacks began to prey upon man, and do to this day under many guises and under many names. This condition will continue until enlightenment has become so general that man will realize the absurdity of such a thing as Nature, or the other world's forces, going out of its way to tell him whether a certain stock will go up or down. A sense of humour ought to convince him that disembodied spirits do not come back and rap on tables in answer to asinine questions. These things are merely prostitutions of the Divine Revelations."

Hatch smiled a little at the lecture platform tone, and Detective Mallory chewed his cigar uncomfortably. He was there to find out something about crime; this thing was over his head.

"This is merely preliminary," The Thinking Machine went on after a moment. "Now as to this crystal gazing affair— a little reason, a little logic. When Mr. Varick came to me I saw he was an intelligent man who had devoted years to a study of the so-called occult. Being intelligent he was not easily hoodwinked, yet he had been hoodwinked for years, therefore I could see that the man who did it must be far beyond the blundering fool usually found in these affairs.

"Now Mr. Varick, personally, had never seen anything in any crystal— remember that— until this 'vision' of death. When I knew this I knew that 'vision' was stamped as quackery; the mere fact of him seeing it proved that, but the quackery was so circumstantial that he was convinced. Thus we have quackery. Why? For a fee? I can imagine successful guesses on the stock market bringing fees to Adhem Singh, but the 'vision' of a man's death is not the way to his pocket-book. If not for a fee— then what?

"A deeper motive was instantly apparent. Mr. Varick was wealthy, he had known Singh and had been friendly with him for years, had supplied him with funds to go through Oxford, and he had no family or dependents. Therefore it seemed probable that a will, or perhaps in another way, Singh would benefit by Mr. Varick's death. There was a motive for the 'vision,' which might

have been at first an effort to scare him to death, because he had a bad heart. I saw all these things when Mr. Varick talked to me first, several days after he saw the 'vision' but did not suggest them to him. Had I done so he would not have believed so sordid a thing, for he believed in Singh, and would probably have gone his way to be murdered or to die of fright as Singh intended.

"Knowing these things there was only the labour of trapping a clever man. Now the Hindu mind works in strange channels. It loves the mystic, the theatric, and I imagined that having gone so far Singh would attempt to bring the 'vision' to a reality. He presumed, of course, that Mr. Varick would keep the matter to himself.

"The question of saving Varick's life was trifling. If he was to die at a given time in a given room the thing to do was to place him beyond possible reach of that room at that time. I 'phoned to you, Mr. Hatch, and asked you to bring me a private detective who would obey orders, and you brought Mr. Byrne. You heard my instructions to him. It was necessary to hide Mr. Varick's identity and my elaborate directions were to prevent anyone getting the slightest clue as to him having gone, or as to where he was. I don't know where he is now.

"Immediately Mr. Varick was off my hands, I had Martha, my housekeeper, write a note to Singh explaining that Mr. Varick was ill, and confined to his room, and for the present was unable to see anyone. In this note a date was specified when he would call on Singh. Martha wrote, of course, as a trained nurse who was in attendance merely in day time. All these points were made perfectly clear to Singh.

"That done, it was only a matter of patience. Mr. Hatch and I went to Mr. Varick's apartments each night— I had Martha there in day time to answer questions— and waited, in hiding. Mr. Hatch is about Varick's size and a wig helped us along. What happened then you know. I may add that when Mr. Varick told me the story I commented on it as being almost unbelievable.

He understood, as I meant he should, that I referred to the 'vision.' I really meant that the elaborate scheme which Singh had evolved was unbelievable. He might have killed him just as well with a drop of poison or something equally pleasant."

The Thinking Machine stopped as if that were all.

"But the crystal?" asked Hatch. "How did that work? How was it I saw you?"

"That was a little ingenious and rather expensive," said The Thinking Machine, "so expensive that Singh must have expected to get a large sum from success. I can best describe the manufacture of the 'vision' as a variation of the principle of the camera obscura. It was done with lenses of various sorts and a multitude of mirrors, and required the assistance of two other men— those who were taken from Singh's house with Jadeh.

"First, the room in Mr. Varick's apartments was duplicated in the basement of Singh's house, even to rugs, books and wall decorations. There two men rehearsed the murder scene that Mr. Varick saw. They were disguised of course. You have looked through the wrong end of a telescope of course? Well, the original reduction of the murder scene to a size where all of it would appear in a small mirror was accomplished that way. From this small mirror there ran pipes with a series of mirrors and lenses, through the house, carrying the reflection of what was happening below, so vaguely though that features were barely distinguishable. This pipe ran up inside one of the legs of the table on which the crystal rested, and then, by reflection to the pedestal.

"You, Mr. Hatch, saw me lift that crystal several times and each time you might have noticed the click. I was trying to find then, how the reflection reached it. When you lifted it slowly and I put my fingers under it I knew. There was a small trap in the pedestal, covered with velvet. This closed automatically and presented a solid surface when the crystal was lifted, and opened when the crystal was replaced. Thus the reflection reached the crystal which reversed it the last time and made it

appear right side up to the watcher. The apparent growth of the light in the crystal was caused below. Some one simply removed several sheets of gauze, one at a time, from in front of the first lens."

"Well!" exclaimed Detective Mallory. "That's the most elaborate affair I ever heard of."

"Quite right," commented the scientist, "but we don't know how many victims Singh had. Of course any 'vision' was possible with a change of scene in the basement. I imagine it was a profitable investment because there are many fools in this world."

"What did the girl have to do with it?" asked Hatch.

"That I don't know," replied the scientist. "She was pretty. Perhaps she was used as a sort of bait to attract a certain class of men. She was really Singh's wife I imagine, not his sister. She was a prominent figure in the mummery with Varick of course. With her aid Singh was able to lend great effectiveness to the general scheme."

A couple of days later Howard Varick returned to the city in tow of Philip Byrne. The Thinking Machine asked Mr. Varick only one question of consequence.

"How much money did you intend to leave Singh?"

"About two hundred and fifty thousand dollars," was the reply. "It was to be used under his direction in furthering an investigation into the psychic. He and I had planned just how it was to be spent."

Personally Mr. Varick is no longer interested in the occult.

25. The Problem of the Deserted House

THE TELEPHONE bell rang sharply, twice. Professor Augustus S. F. X. Van Dusen — The Thinking Machine — opened his eyes from a sound sleep, rose from the bed, turned on an electric light, and squinted at the clock on the table. It was just half-past

one; he had been asleep for only a little more than an hour. He slid his small feet into a pair of soft slippers and went to the telephone.

"Hello!" he called irritably.

"Is that Professor Van Dusen?" came the answer in a man's voice— a voice tense with nervous excitement, and so quick in enunciation that the words tumbled over one another.

"Yes," replied the scientist. "What is it?"

"It's a matter of life and death!" came the hurried response in the same hasty tone. "Can you come at once and—" The instrument buzzed and sputtered incoherently, and the remainder of the question was lost.

For an instant The Thinking Machine listened intently, seeking to interpret the interruption; then the sputtering ceased and the wire was silent. "Who is this talking?" he demanded.

The answer was almost a shout; it was as if the speaker was strangling, and the words came explosively, with a distinct effort. "My name is—"

And that was all. The voice was swallowed up suddenly in the deafening crack of an explosion of some sort— a pistol shot! Involuntarily The Thinking Machine dodged. The receiver sang shrilly in his ear, and the transmitter vibrated audibly; then the instrument was mute again— the connection was broken.

"Hello, hello!" the scientist called again and again; but there was no answer. He moved the hook up and down several times to attract Central's attention. But that brought no response. Whatever had happened had at least temporarily rendered his own line lifeless. "Dear me! Dear me!" he grumbled petulantly. "Most extraordinary!"

For a time he stood thoughtfully staring at the instrument; then went over and sat down on the edge of the bed. Sleep was banished now. Here was a problem, and a strange one! Every faculty of his wonderful brain was concentrated upon it. The minutes sped on as he sat there turning it all over in his mind, analyzing it, regarding it from every possible viewpoint, while

tiny wrinkles were growing in the enormous brow. Finally he concluded to try the telephone again. Perhaps it had only been momentarily deadened by the shock. He returned to the instrument and picked up the receiver. The rhythmic buzz of the wire told him instantly that the line was working. Central answered promptly.

"Can you tell me the number which was just connected with this?" he inquired. "We were interrupted."

"I'll see if I can get it," was the reply.

"It's of the utmost importance," he went on to explain tersely; "a matter of life and death, even."

"I'll do what I can," Central assured him; "but there is no record of the calls, you know, and there may have been fifty in the last ten or fifteen minutes, and of course the operators don't remember them." She obligingly gave him a quarter of an hour as she sought some clue to the number.

The Thinking Machine waited patiently for the report, staring dumbly at the transmitter meanwhile, and at last it came. No one remembered the number; there was no record of it. Central was sorry. With a curt word of thanks the scientist called for one of the big newspaper offices and asked for Hutchinson Hatch, reporter.

"Mr. Hatch isn't in," came the response.

"Do you know where he is?" queried the scientist, and there was a shadow of anxiety in the perpetually irritated voice.

"No; home, I suppose."

The man of science drew long, quick breath—it might have been one of uneasiness— and called the newspaper man's home number. Of course the mysterious message over the telephone had not been from Hatch. It was not the reporter's voice, he was positive of that, and yet there was the bare chance that—

"Hello!" Hatch growled amiably but sleepily over the wire.

The Thinking Machine's drawn face showed a vague relief as he recognized the tone. "That you, Mr. Hatch?" he asked.

"Yes."

"In any trouble?"

"Trouble?" repeated the reporter in evident surprise. "No. Who is this?"

"Van Dusen," was the response. "Good night."

Mechanically, unconsciously almost, The Thinking Machine began dressing. The ever active, resourceful brain, plunged so suddenly into this maze of mystery, was fully awake now and was groping through the fog of possibilities and conjecture, feeling for some starting point in this singular problem which had been thrust upon it so strangely. And evidently at last there came some inspiration; for the eminent scientist started hurriedly out the front door into the night, pausing on the steps to remember that in his haste he had forgotten to exchange his slippers for shoes, and that he was bare headed.

Fifteen minutes later the night operator in chief at the branch telephone exchange was favored with a personal call from Professor Augustus S. F. X. Van Dusen. There was a conference of five minutes or so, after which the scientist was led back through the operating room and ushered into a long high ceilinged apartment where thousands of telephone wires were centered— a web woven of thin strands, each of which led ultimately to the long table where a dozen or more girls were on watch. He went into that room at five minutes of two o'clock; he came out at seventeen minutes after four and appeared before the night operator in the outer office.

"I found it," he announced shortly. "Please, now, let me speak to police headquarters— either Detective Mallory or Detective Cunningham."

Detective Cunningham answered.

"This is Van Dusen," the scientist told him. "I should like to know if any murder or attempted murder has been reported to the police to-night?"

"No," replied the detective. "Why?"

"I was afraid not," mused The Thinking Machine enigmatically. "Has there been any call for police assistance

anywhere?"

"No."

"Between one and two o'clock?" insisted the scientist.

"There hasn't been a call to-night," was the reply. "What's it all about?"

"I don't know— yet," said the scientist. "Good night."

The Thinking Machine went out after a few minutes, pausing on the curb in the brilliant glare of a street lamp to jot down a number on his cuff. When he looked up a cab was just passing. He hailed it, gave an address to the driver, and a moment later the vehicle went clattering down the street. When it stopped at last before a dark, four-storey house, the cabman sat still for a moment expecting his passenger to alight. But nothing happened; so he jumped down and peered into the gloom of the vehicle. Dimly he was able to make out the small figure of the scientist huddled up in a corner of the cab with his huge yellow head thrown back, and slender white fingers pressed tip to tip.

"Here we are, sir," announced the driver.

"Yes, yes, to be sure!" exclaimed the scientist hurriedly. "I quite forgot. You needn't wait."

The vehicle was driven off as The Thinking Machine ascended the brown stone steps of the house and pulled the bell. There was no answer, no sound inside, and he pulled it the second time, then the third. Finally, leaning forward with his ear pressed against the door, he pulled the bell the fourth time. This evidently convinced him that the cord inside was disconnected, and he tried the door. It was locked.

Without an instant's hesitation he ran down the steps to the basement entrance in an areaway. There was no bell there, and he tried the knob tentatively. It turned, and he stepped into a damp, smelly hallway, unrelieved by one glint of light. He closed the door noiselessly behind him, and stood for a little while listening. Then he did peculiar thing. He produced a small electric pocket lamp, and holding it as far to the left as he could reach, with the lens pointing ahead of him, pressed the button.

A single white ray cleft the darkness, revealing a bare, littered floor, moldy walls, a couple of doors, and stairs leading up.

He spent five cautious minutes perhaps in the basement. There was no sign of recent human habitation, nothing but accumulated litter, and dust and dirt. Then he went up the stairs to the floor above. Here he spent another five minutes, with only an occasional flash of light, always at arm's length to extreme right or left, to tell him there was yet no sign of occupancy. Then another flight of stairs to the second floor. Still there was no sound, no trace of anyone, no indication of a living thing.

His first glimpse of the third floor confirmed at first glance all those impressions of desertion he had gathered below. The front room was identical with the one below, the front hall room was identical; but there was a difference in the large rear room. The dust and litter of the floor seemed worn into a sort of path from the top of the stairs, and following this path toward the back he came upon— a telephone!

"Forty-one-seventeen," he read, as the instrument stood revealed, bathed in the light from the electric bulb. Then he glanced down at his cuff and repeated, "Forty-one-seventeen."

With every sense alert for one disturbing sound, he spent two full minutes examining the instrument. He seemed to be seeking some mark upon it,— the scar of a bullet, perhaps,— and as the scrutiny continued fruitless, the tiny wrinkles, which had momentarily disappeared from his face, appeared there again, and deepened perceptibly. The receiver was on the hook, the transmitter seemed to be in perfect condition, and the walls round the box were smooth. Finally he allowed the light to fade, then picked up the receiver and held it to his ear. His sensitive fingers instantly became aware of tiny particles of dust on the smooth black surface; and the line was dead. Central did not answer. Yet this was the telephone from which he had been called!

Again he examined the instrument under the light, with

something akin to perplexity on his drawn face; then allowed his eyes to follow the silken wire as it led up, across the room, and out the window. Did it go up or down? Probably up, possibly down. He had just taken two steps toward that window, with the purpose of answering this question definitely, when he heard a sound somewhere off in the house and stopped.

The light faded, and utter gloom swooped down upon him as he listened. What he heard apparently was the tread of feet at a distance, somewhere below. They seemed to be approaching. Now they were in the lower hall, and grew clatteringly distinct in the emptiness of the house; then the tread sounded on the stairs, the certain, quick step of one who knew his way perfectly. Now the sound was at the door— now finally in the room. Yet there was not one ray of light.

For a little time The Thinking Machine stood motionless, invisible in the enshrouding darkness, until the footsteps seemed almost upon him. Then suddenly his right arm was extended full length from his body, the electric bulb blazed in his hand, and slashed around the room. By every evidence of the sense of sound the flash should have revealed something— perhaps the figure of a man. But there was nothing! The room was vacant, save for himself. And even while the light flared he heard the steps again. The light went out, he took four quick, noiseless steps to his left, and stood there for a moment puzzled.

Then he understood. The mysterious tread was stilled now, as if the person had stopped, and it remained still for several minutes. The Thinking Machine crept silently, cautiously, toward the door and stepped out into the hall. Leaning over the stair rail, he listened. And after awhile the tread sounded again. He drew back into the shadow of a linen closet as the sound grew nearer— stood stock-still staring into blank nothingness as it was almost upon him; then the footsteps receded gradually along the hall, down the stairs, growing fainter, until the receding echo was lost in the silence of the night.

Whereupon The Thinking Machine went boldly up the stairs to the fourth floor, the top. He mounted confidently, as if expecting something to reward his scrutiny; but his eyes rested only upon the bleak desolation of unoccupied apartments. He went straight to the rear room, above the one he had just left, and directly across to one of the windows. Faint, rosy streaks of dawn slashed the east— just enough natural light to show dimly a silken wire hanging down from the middle of the window outside. He opened the window, drew in the wire, and examined it carefully under the electric light, and nodded as if he understood.

Finally he turned abruptly and retraced his steps to the first floor. There he paused to examine the knob of the front door; then went on down into the basement. Instead of examining the door there, however, he turned back under the stairs. There he found another door— a door to the subcellar, standing open a scant few inches. A damp, moldy smell came up. After a moment he pushed the door open slowly and ventured one foot forward in the darkness. It found a step, and he began to descend. The fourth step down creaked suddenly, and he paused to listen intently. Utter silence!

Then on down, ten, eleven, twelve, fourteen, steps, and his foot struck soft, yielding earth. Safely on the ground again, in the protecting gloom, he stood still for a long time, peering blindly around him. At last a blaze of light leaped from the electric bulb, which was extended far from the body to the right, and The Thinking Machine drew a quick breath. It might have been surprise; for within the glow of the light lay the figure of a young man, a boy almost, flat of his back on the muddy earth, with eyes blinking in the glare. His feet were bound tight together with a rope, and his hands were evidently fastened behind him.

"Are you the gentleman who telephoned for me?" inquired The Thinking Machine calmly.

There was no answer, and yet the prostrate man was fully conscious, as proved by the moving eyes and a twitching of his

limbs.

"Well?" demanded the scientist impatiently. "Can't you talk?"

His answer was a flash of flame, the crash of a revolver at short range, and the light dropped, automatically extinguished as the pressure on the button was removed. Upon this came the sound of a body falling. There was a long drawn gasp, and again silence.

"For God's sake, Cranston!" came the explosive voice of a man after a moment. "You've killed him!"

"Well, I'm not in this game to spend the rest of my life in jail," was the answer, almost a snarl. "I didn't want to kill anybody; but if I had to, all right. If it hadn't been for this kid here, we'd have been all right anyway. I've got a good mind to give him one too, while I'm at it!"

"Well, why don't you?" came a third voice. It was taunting, cold, unafraid.

"Oh, shut up!"

Feet moved uncertainly, feelingly, over the soft earth and stumbled upon the inert, limp figure of The Thinking Machine, lying face down on the ground, almost at the feet of the bound man. One of the men who had spoken stooped, and his fingers touched the still, slim body. He withdrew his hands quickly.

"Is he dead?" some one asked.

"My God, man! Why did you do it?" exclaimed the man who had spoken first, and there was a passionate undertone in his voice. "I never dreamed that this thing would lead to— to murder!"

"It hardly seems to be a time to debate why I did it," was the brutal response; "so much as it is to decide what we'll do now that it is done. We might drop this body in the coal bin in the basement until we finish up here; but what shall we do with the boy? We are both guilty— he saw it. He wanted to tell the other. What will he do now?"

"He'll tell it just so surely as he lives," the bound man

answered for himself.

"In that case there's only one thing to do," declared Cranston flatly. "We'd better make a double job of this, leave them both here, and get away."

"Don't kill me— don't kill me!" whined the young man suddenly. "I won't ever tell— I promise! Don't kill me!"

"Oh, shut up!" snarled Cranston. "We'll attend to you later. Got a match?"

"Don't strike a light," commanded the other man sharply, fearfully. "No, don't! Why, man, suppose— suppose your shot had struck him in— in the face. God!"

"Well, help me lift it," asked Cranston shortly.

And between them they carried the childlike body of the eminent man of science through the darkness to the stairs, up the stairs and through the basement to the back. The dawn was growing now, and the pallid, drawn face of The Thinking Machine was dimly visible by a light from the window. The eyes were wide open, glassy; the mouth agape slightly. Overcome by a newborn terror— hideous fear— the two men flung the body brutally into an open coal bin, slammed down the cover, and went stumbling, clattering, out of the room.

It was something less than half an hour later that the lid of the coal bin was raised from inside, and The Thinking Machine clambered out. He paused for a moment, to rub his knees and elbows ruefully and stretch his cramped limbs.

"Dear me! Dear me!" he grumbled to himself. "I really must be more careful."

And then straight back to the entrance of the subcellar he went. It was lighter outside now, and he walked with the assurance of one who saw where he went, yet noiselessly. But the door of the stairs leading down still revealed only a yawning, black hole. He went on without the slightest hesitation, remembering to step over the fourth step, which had squeaked once before. In the gloom below, standing on the earth again, he listened for many minutes.

Assured at last that he was alone, he groped about the floor for his electric light, and finally found it. Without fear or apparent caution he examined the huge, dark, damp room. On each side were thrown up banks of dirt that seemed to have been dug recently, and here before him was where the bound man had lain. And over there— he started forward eagerly when he saw it— was a telephone! The transmitter box had been wrecked by what seemed to be a bullet. As he saw it he nodded his head comprehendingly.

From there he went on around some masonry. Here was a passage of some sort. He flashed the light into it. It had been dug out of the solid earth, and its existence evidently accounted for the heaps of dirt in the subcellar. Still he didn't hesitate. Straight along the passage he went, wary of step, and stooping occasionally to avoid striking his head against the earth above him. Ten, fifteen, twenty, feet he went, and still the gloomy, foul smelling hole lay ahead of him, leading to— what? At about thirty-five feet from the subcellar there was a sharp turn— he thought at first it was the end of the tunnel— then the passage straightened out again, and there was another fifteen or twenty feet, growing smaller and smaller as he went forward.

Suddenly the tunnel stopped. The Thinking Machine found himself flattening his nose against a door of some sort. He allowed his light to fade, then dimly, through a cranny, he saw a faint glow outside. This seemed to be his destination, wherever it was— and he paused thoughtfully. Obviously the light outside was electric, and if electric light might not some one be in there? A subterranean chamber of some sort, perhaps? His fingers ran around the edge of the door, loosened a fastening, and he peered out. Then, assured again, he opened the door wide, and stepped out into a brilliant glare.

He was in the subway. He stood blinking incredulously. Here to his right the shining rails went winding off round a curve in the far distance; and to the left was a quicker turn in the line of the excavation. In neither direction was there anything that

looked like a station.

"Really, this is most extraordinary!" he exclaimed.

Then and there the eminent man of science paused to consider this weird thing from all possible viewpoints. It was unbelievable, positively nightmarish; yet true enough, for here he stood in the subway. There was no question about that; for in the distance was the roar of a train, and he discreetly withdrew into the little door, closing it carefully behind him until it had passed.

Finally he popped out again, closed the door behind him, paused only to admire the skill with which a portion of the tiling in the tunnel had been utilized as a door, then went on across the tracks. It was still early morning; the trains were as yet few and far between; so he had a little leisure for the minute examination he made of the tiled walls opposite the closed door. It was perhaps ten minutes before he found a tile that was loose. He hauled at it until it came out in his hand, revealing a dark aperture beyond.

Within fifteen minutes, therefore, from the time he undertook the search for the second door he was standing in another narrow, earthy tunnel which beckoned him on. With the ever ready light to guide him, and still proceeding with caution, he advanced for possibly thirty feet; then came a turn. Round the turn he found himself in a sort of room— another cellar, perhaps. He permitted his light to go out, and stood listening, straining his squint eyes. After a time he was satisfied and flashed his light again.

Directly before him were half a dozen rough steps, leading up to what seemed to be a trap door. He had barely time to notice this and to see that the trap door was hanging open, when there came a cyclonic rush toward him out of the darkness, from the direction of his right, something whizzed past his head, causing him to drop the precious light, and instinctively he ran up the steps. The gloom above was no more dangerous, he thought, than the gloom below, and he went on, finally

passing through the trap and standing on a hard floor above.

There was the sound of a fierce, desperate struggle down there somewhere, cursing, blasphemy, then the noise of feet on the steps coming toward him, and the trap door closed with the heavy, resonant clang of iron. He was alone, his light lost. A sudden strange, awful silence closed down around him, a silence alive with suggestion of unseen, unknown dangers. He stood for a moment, then sank down upon the floor wearily.

Cashier Randall stood beside the ponderous door of the vault, watch in hand. It was two minutes of ten o'clock. At precisely ten the time lock on the massive steel structure, built into the solid masonry of the bank, would bring the mechanism into position for the combination to work. Already the various clerks and tellers were at their posts; books and money were in the vault. At length there came a whirl and a sharp click in the heavy door, and the cashier whirled the combination. A few minutes later he pulled open the outer door with a perceptible effort, then turned his attention to the combination lock on the second door. This yielded more readily; but there was still another door, the third to be unlocked. Altogether the task of opening the huge vault required something like six minutes.

Finally Cashier Randall threw open the light third door, then touched an electric button to his right. Instantly the gloom of the structure was dispelled by a flood of light, and he started back in amazement. Almost at his feet, on the floor of the vault, was the huddled figure of a man. Dead? Or unconscious? Certainly there was no movement to indicate life, and the cashier stepped backward into the office with blanched face.

Others came crowding round and saw, and startled glances were exchanged.

"You, Carroll and Young, lift him out, please," requested the cashier quietly. "Don't make any noise about it. Take him to my office."

The order was obeyed in silence. Then Cashier Randall in person went into the vault and ran hurriedly through the piles of

money which lay there. He came out at last and spoke to one of the paying tellers.

"The money is all right," he said, with a relieved expression in his face. "Have it all counted carefully, please, and report to me."

He retired into his private office and closed the door behind him. Carroll and Young stood staring down curiously at the man who now lay stretched full length on the couch. They looked at the cashier inquiringly.

"I think it's a matter for the police," continued the cashier after a moment and he picked up the receiver of the telephone.

"But how— how did he get in the vault?" stammered Carroll.

"I don't know. Hello! Police headquarters, please."

"Anything missing, sir?" inquired Young.

"Not so far as we know," was the reply. "Don't make any excitement about it, please. He is breathing yet, isn't he?"

"Yes," answered Carroll. "He doesn't seem to be hurt— just unconscious."

"Lack of air," said the cashier. "He must have been in there all night. It's enough to kill him. Hello! I want to speak to the chief of detectives. Mr. Mallory, yes. This is the Grandison National Bank, Mr. Mallory. Can you come down at once, please, and investigate a matter of great importance?"

Fifteen minutes later Detective Mallory walked into the cashier's private office. Instantly his eyes fell upon the recumbent figure on the couch, and there came with the glimpse a strange, startled expression.

"Well, for—" he blurted. "Where did you get hold of him?"

"I found him in the vault just now when I opened it," was the reply. "Do you know him?"

"Know him?" bellowed Detective Mallory. "Know him? Why it's Professor Van Dusen, a distinguished scientist. He's the fellow they call The Thinking Machine sometimes." He paused incredulously. "Have you sent for a doctor? Well, send for one quick!"

With the tender care of a mother for her child the detective hovered about the couch whereon The Thinking Machine lay, having first opened the window, and pausing now and then to swear roundly at the physician's delay in arriving. And at last the doctor came. Quick restoratives brought the scientist to consciousness within a few minutes.

"Ah, Mr. Mallory!" he remarked weakly. "Please have the doors locked, and put somebody you can trust on guard. Don't let anyone out. I'll explain in a minute or so."

The detective rushed out of the room, returning a moment later. He found The Thinking Machine talking to the cashier.

"Have you a man named Cranston employed here in the bank?"

"Yes," replied the cashier.

"Arrest him, Mr. Mallory," directed The Thinking Machine. "Doctor, just the least bit of nitroglycerin, please, in my left arm, here. And, also, Mr. Mallory, arrest any particular chum of this man Cranston; also a young man, almost a boy, possibly employed here— probably a relative or closely connected with Cranston's chum. That will do, doctor. Thanks! Anything stolen?"

The detective glanced inquiringly at the cashier.

"No," replied that official.

The Thinking Machine dropped back on the couch, closed his eyes, and lay silent for a moment.

"Pretty bad pulse, doctor," he remarked at last. "Charge your hypodermic again. What bank is this, Mr. Mallory?"

"Grandison National," the detective informed him. "What happened to you? How did it come you were in the vault?"

"It was awful, Mr. Mallory— awful, believe me!" was the reply. "I'll tell you about it after awhile. Meanwhile be sure to get Cranston and—"

And he fainted.

Twenty-four hours' rest in his own home, under the watchful eye of a physician, restored The Thinking Machine to a physical condition almost normal. But the whys and wherefors of his

mysterious presence in the vault of the bank were still matters of eager speculation, but speculation only, to both the police and the bank officials. His last words, before being removed to his own apartments, had been a warning against the further use of the vault; but no explanation accompanied it.

Meanwhile Detective Mallory and his men rounded up three prisoners— Harry Cranston, a middle aged and long trusted employee of the bank; David Ellis Burge, a young mechanical engineer with whom Cranston had been upon terms of great intimacy for many months; and Richard Folsom, a stalwart young nephew of Burge's, himself a student of mechanical engineering. They were held upon charges born in the fertile mind of Detective Mallory, carefully isolated from one another and from the outside.

The Thinking Machine told his story in detail, incident by incident, from the moment of the telephone call until the trap door closed behind him and he found himself in the vault of a bank. His listeners, Detective Mallory, President Hall and Cashier Randall of the Grandison National, and Hutchinson Hatch, reporter, absorbed it in utter amazement.

"Certainly it was the most elusive problem that has ever come under my observation," declared the diminutive man of science. "It was so elusive, so compelling, that I indiscreetly placed my life in danger twice, and I didn't know definitely what it all meant until I knew I was in the vault. No man may know that slow suffocation, that hideous gasping for breath as minute after minute went by, unless he has felt it. And, gentlemen, if I had been killed one of the most valuable minds in the sciences would have been lost. It would have been nothing less than a catastrophe." He paused and settled back into that position which was so familiar to at least two of his hearers.

"When I got the telephone call," he resumed after a moment, "it told me several things beyond the obvious. The logic of it all— and logic, gentlemen, is incontrovertible— was that some man was in danger, in danger even as he talked to

me, that he had tried to reach me, seeking help, that the first interruption on the wire came because perhaps he was being choked, and that the second came— the shot which wrecked the instrument— as a desperate expedient to prevent further conversation. The scene was quite clear in my mind.

"The wire was dead then. Central didn't know the number. There was no way to get that number save by the tedious process of testing the wires in the exchange, and that might have taken days. It took only two hours or so, fortunately; but I got the number at last from which I was called; that is, I got a wire which was inexplicably dead, and assumed the rest. The number of that wire was forty-one-seventeen. The records showed the street and number of the house where it came from. Therefore I went there. Before I went I took the precaution of calling up police headquarters to see if any report of a murder or attempted murder or anything unusual had come in. Nothing had come in. This fact in itself was elucidating, because vaguely it indicated that I had been called, rather than the police, because— well, perhaps because it was not desirable for the police to know.

"Well, as I explained, I searched the house; and by the way, Mr. Mallory, I don't know if you know the advantages of always holding your dark lantern as far away from your body as possible when going into dangerous places; because if there is danger, a shot, say, the natural impulse of the person who shoots is to aim at the light. Incidentally this precaution saved my life in the cellar, when I feigned death. But I'm going a little ahead of myself.

"I found telephone number forty-one-seventeen, and there was a heavy coat of dust on the receiver. Obviously it had not been recently used. The line was dead, it is true, but the instrument was in perfect condition. There was no sign of a bullet mark anywhere round or near it. If the bullet that was fired had killed the man who had been using the line, it would not have deadened the wire; therefore instantly I saw that the

line had been tapped somewhere; that this instrument had been cut off from it, and the instrument which was demolished was the one on the branch wire.

"I knew this, and was going to the window to see if the wire led up or down, when I heard some one approaching. I first supposed that the person, whoever it was, was in the room with me, the steps were so distinct; but when I flashed the light, intending at least to see him, I knew he was above me. One loses the sense of direction of sound, particularly in the dark; and it is an incontestable fact that footsteps, or any sound above, can be heard more clearly than the same sound below. Therefore I knew that some one was in the room above me. For what purpose? Possibly to disconnect the branch wire on the telephone line.

"I waited until the person, whoever it was, came down and went his way; then I found the wire, and saw where the connection had been made on it. Then I went straight down to the subcellar. There I saw this Folsom lying on the ground, bound. He was not gagged; yet he didn't answer my questions; obviously because he knew if he did he would place himself in danger. The shot was fired at me, or rather at my light, and I went through the farce which ultimately placed me in a coal bin. Then I began to get a definite idea of things from the conversation, when Cranston's name was mentioned several times.

"Folsom persisted in an outspoken declaration to reveal everything he knew, including the story of my murder. He insisted until he placed himself in grave danger, and then, under cover of utter darkness, I extended one hand and pinched him twice on the ankle. He knew then that I was not dead, that I had heard, and did the very thing I wanted him to do— begged for his life. It was a bit of justifiable duplicity. I knew if he was the man his every act so far had indicated that he would humbug Cranston and the other man into letting him go, or at least not committing another murder. Subsequent developments showed

that this conjecture was correct.

"From the coal bin I went back to the subcellar, knowing positively now that there would be no one there. Those men were frightened when they left me, and men run from fright. What they would do with young Folsom I didn't know. There, with my electric light, I found the branch telephone. The transmitter box had been ruined by a shot, as I imagined. So, thus far at least, the logic of the affair was taking me some place.

"And then I followed that tunnel through the subway into another tunnel. I should not have ventured into that second tunnel had I not been fairly confident that no one else was there. In that I was mistaken. I don't know now, but I imagine that young Folsom was temporarily being held prisoner there, and that possibly Cranston was on guard. Anyway, there was a fight, and the trap door was open— the trap door into the vault. And I don't know yet whether Folsom and Cranston, if they were there, even knew I was at hand. Certainly the trap door, once closed behind me, was not opened again. And you know the rest of it." Again there was a pause, and the scientist twiddled his fingers idly.

"Now it all comes down to this," he concluded at last. "Cranston dragged Burge in to the affair— Burge is a mechanical engineer, and a good one was needed to do this work— they rented the house, and went to work. It took weeks, perhaps months, to do it all. Folsom in some way learned of it, and he is an honest man. He took a desperate means of getting the information into my hands, instead of the hands of the police. Why the telephone was in the house I don't know— perhaps it was already there, perhaps they had it put in. Anyway, of your prisoners, Mr. Mallory, this young Folsom is guilty only of an attempt to shield his uncle, Burge, while Cranston is the ringleader, and Burge the man who achieved the immense task of getting under the vault of the bank.

"This vault has a floor of cement, cut into small squares. The

trap door is in that floor, and so perfectly concealed in the lines of the squares that it is invisible unless submitted to a close scrutiny, just as the doors in the tiled walls of the subway were invisible to a casual observer. They overcame tremendous difficulties, these two men, in cutting through the immense foundation of the vault, even the steel itself, but remember that they worked at night for weeks and weeks, and were making no mistakes. They did not actually rob the bank because, I imagine, they were awaiting the deposit there of some immense sum. Is that correct, Mr. Hall?"

President Hall started suddenly. "Yes, in a week or so we were expecting a shipment of gold from Europe— nearly three million dollars," he explained. "Think of it!"

Detective Mallory whistled. "Phew! What a haul it would have been!"

"Now, Mr. Mallory, either of these three men, if properly approached, will confess the whole thing substantially as I have told it," remarked The Thinking Machine. "But I would advise that Folsom be allowed to go. He is really a very decent sort of young man."

When they had all gone except Hatch, the eminent man of science went over and laid one hand upon the report's shoulder and squinted straight into his eyes for a moment. "You know, Mr. Hatch," he said, and there was a strange note in the irritable voice, "my first fear, when the telephone call came, was that it was you. You must be careful— very careful, always."

26. The Problem of the Cross Mark

IT was an unsolved mystery, apparently a riddle without an answer, in which Watson Richards, the distinguished character actor, happened to play a principal part. The story was told at the Mummies Club one dull afternoon. Richards' listeners were three other actors, a celebrated poet, and a newspaper reporter

named Hutchinson Hatch.

"You know there are few men in the profession to-day who really amount to anything who haven't had their hard knocks. Well, my hard times came early, and lasted a long time. So it was just about three years ago to a day that a real crisis came in my affairs. It seemed the end. I had gone one day without food, had bunked in the park that night, and here it was two o'clock in the afternoon of another day. It was dismal enough.

"I was standing on a corner, gazing moodily across the street at the display window of a restaurant, rapidly approaching the don't care stage. Some one came up behind and touched me on the shoulder. I turned listlessly enough, and found myself facing a stranger— a clean cut, well groomed man of some forty years.

"'Is this Mr. Watson Richards, the character actor?' he asked.

"'Yes,' I replied.

"'I have been looking for you everywhere,' he explained briefly. 'I want to engage you to do a part for one performance. Are you at liberty?'

"You chaps know what that meant to me just at that moment. Certainly the words dispelled some unpleasant possibilities I had been considering.

"'I am at liberty— yes,' I replied. 'Be glad to do it. What sort of part is it?'

"'An old man,' he informed me. 'Just one performance, you know. Perhaps you'd better come up town with me and see Mr. Hallman right now.'

"I agreed with a readiness which approached eagerness, and he called a passing cab. Hallman was perhaps the manager, or stage manager, I thought. We had driven on for a block in the general direction of up town, my companion chatting pleasantly. Finally he offered me a cigar. I accepted it. I know now that cigar was drugged, because I had hardly taken more than two or three puffs from it when I lost myself completely.

"The next thing I remember distinctly was of stepping out of the cab— I think the stranger assisted me— and going into a

house. I don't know where it was— I didn't know then— didn't know even the street. I was dizzy, giddy. And suddenly I stood before a tall, keen faced, clean shaven man. He was Hallman. The stranger introduced me and then left the room. Hallman regarded me keenly for several minutes, and somehow under that scrutiny my dormant faculties were aroused. I had thrown away the cigar at the door.

“You play character parts?” Hallman began.

“Yes, all the usual things,” I told him. “I’m rather obscure, but —”

“I know,” he interrupted; “but I have seen your work, and like it. I have been told too that you are remarkably clever at make-up.”

“I think I blushed— I hope I did, anyway— I know I nodded. He paused to stare at me for a long time.

“For instance,” he went on finally, “you would have no difficulty at all in making up as a man of seventy-five years?”

“Not the slightest,” I answered. “I have played such parts.”

“Yes, yes, I know,” and he seemed a little impatient. “Well, your make-up is the matter which is most important here. I want you for only one performance; but the make-up must be perfect, you understand.” Again he stopped and stared at me. “The pay will be one hundred dollars for the one performance.”

“He drew out a drawer of a desk and produced a photograph. He looked at it, then at me, several times, and finally placed it in my hands.

“Can you make up to look precisely like that?” he asked quietly.

“I studied the photograph closely. It was that of a man about seventy-five years old, of rather a long cast of features, not unlike the general shape of my own face. He had white hair, and was clean shaven. It was simple enough, with the proper wig, a make-up box, and a mirror.

“I can,” I told Hallman.

“Would you mind putting on the make-up here now for my

inspection?' he inquired.

“‘Certainly not,’ I replied. It did not strike me at the moment as unusual. ‘But I’ll need the wig and paints.’

“‘Here they are,’ said Hallman abruptly, and produced them. ‘There’s a mirror in front of you. Go ahead.’

“I examined the wig and compared it with the photograph. It was as near perfect as I had ever seen. The make-up box was new and the most complete I ever saw. It didn’t occur to me until a long time afterward that it had never been used before. So I went to work. Hallman paced up and down nervously behind me. At the end of twenty minutes I turned upon him a face which was so much like the photograph that I might have posed for it. He stared at me in amazement.

“‘By George!’ he exclaimed. ‘That’s it! It’s marvelous!’ Then he turned and opened the door. ‘Come in, Frank,’ he called, and the man who had conducted me there entered. Hallman indicated me with a wave of his hand. ‘How is it?’ he asked.

“Frank, whoever he was, also seemed astonished. Then that passed and a queer expression appeared on his face. You may imagine that I awaited their verdict anxiously.

“‘Perfect— absolutely perfect,’ said Frank at last.

“‘Perhaps the only thing,’ Hallman mused critically, ‘is that it isn’t quite pale enough.’

“‘Easily remedied,’ I replied, and turned again to the make-up box. A moment later I turned back to the two men. Simple enough, you know— it was one of those pallid, pasty faced make-ups— the old man on the verge of the grave, and all that sort of thing— good deal of pearl powder.

“‘That’s it!’ the two men exclaimed.

“The man Frank looked at Hallman inquiringly.

“‘Go ahead,’ said Hallman, and Frank left the room.

“Hallman went over, closed and locked the door, after which he came back and sat down in front of me, staring at me for a long time in silence. At length he opened an upper drawer of the desk and glanced in. A revolver lay there, right under his hand. I

know now he intended that I should see it.

“‘Now, Mr. Richards,’ he said at last very slowly, ‘what we want you to do is very simple, and as I said there’s a hundred dollars in it. I know your circumstances perfectly— you need the hundred dollars.’ He offered me a cigar, and foolishly enough I accepted it. ‘The part you are to play is that of an old man, who is ill in bed, speechless, utterly helpless. You are dying, and you are to play the part. Use your eyes all you want; but don’t speak!’

“Gradually the dizziness I had felt before was coming upon me again. As I said, I know now it was the cigar; but I kept on smoking.

“‘There will be no rehearsal,’ Hallman went on, and now I knew he was fingering the revolver I had seen in the desk; but it made no particular impression on me. ‘If I ask you questions, you may nod an affirmative, but don’t speak! Do only what I say, and nothing else!’

“Full realization was upon me now; but everything was growing hazy again. I remember I fought the feeling for a moment; then it seemed to overwhelm me, and I was utterly helpless under the dominating power of that man.

“‘When am I to play the part?’ I remember asking.

“‘Now!’ said Hallman suddenly, and he rose. ‘I’m afraid you don’t fully understand me yet, Mr. Richards. If you play the part properly, you get the hundred dollars; if you don’t, this!’

“He meant the revolver. I stared at it dumbly, overcome by a helpless terror, and tried to stand up. Then there came a blank, for how long I don’t know. The next thing I remember I was lying in bed, propped up against several pillows. I opened my eyes feebly enough, and there wasn’t any acting about it either, because whoever drugged those cigars knew his business.

“There in front of me was Hallman, with a grief stricken expression on his face which made all my art seem amateurish. There was another man there too (not Frank), and a woman who seemed to be about forty years old. I couldn’t see their

faces— I wouldn't even be able to suggest a description of them, because the room was almost dark. Just the faintest flicker of light came through the drawn curtains; but I could see Hallman's devilish face all right. These three conversed together in low tones— sick room voices— but I couldn't hear, and doubt if I could have followed their conversation if I had heard.

"Finally the door opened and a girl entered. I have seen many women, but— well, she was peculiarly fascinating. She gave one little cry, rushed toward the bed impulsively, dropped on her knees beside it, and buried her face in the sheets. She was shaking with sobs.

"Then I knew— intuitively, perhaps, but I knew— that in some way I was being used to injure that girl. A sudden feeling of fearful anger seized upon me, but I couldn't move to save my soul. Hallman must have caught the blaze in my eyes, for he came forward on the other side of the bed, and, under cover of a handkerchief which he had been using rather ostentatiously, pressed the revolver against my side.

"But I wouldn't be made a tool of. In my dazed condition I know I was seized with a desperate desire to fight it out— to make him kill me if he had to, but I would not deceive the girl. I knew if I could jerk my head down on the pillow it would disarrange the wig, and perhaps she would see. I couldn't. I might pass my hands across my make-up and smear it. But I couldn't lift my hands. I was struggling to speak, and couldn't.

"Then somehow I lost myself again. Hazily I remember that somebody placed a paper in front of me on a book— a legal-looking document— and guided my hand across it; but that isn't clear. I was helpless, inert, so much clay in the hands of this man Hallman. Then everything faded— slowly, slowly. My impression was that I was actually dying; my eyelids closed of themselves; and the last thing I saw was the shining gold of that girl's hair as she sobbed there beside me.

"That's all of it. When I became fully conscious again a policeman was shaking me. I was sitting on a bench in the park.

He swore at me volubly, and I got up and moved slowly along the path with my hands in my pockets. Something was clenched in one hand. I drew it out and looked at it. It was a hundred-dollar bill. I remember I got something to eat; and I woke up in a hospital.

“Well, that’s the story. Make what you like of it. It can never be solved, of course. It was three years ago. You fellows know what I have done in that time. Well, I’d give it all, every bit of it, to meet that girl again (I should know her), tell her what I know, and make her believe that it was no fault of mine.”

Hutchinson Hatch related the circumstances casually one afternoon a day or so later to Professor Augustus S. F. X. Van Dusen— The Thinking Machine.

That eminent man of science listened petulantly, as he listened to all things. “It happened in this city?” he inquired at the end.

“Yes.”

“But Richards has no idea what part of the city?”

“Not the slightest. I imagine that the drugged cigar and a naturally weakened condition made him lose his bearings while in the cab.”

“I dare say,” commented the scientist. “And of course he has never seen Hallman again?”

“No— he would have mentioned it if he had.”

“Does Richards remember the exact date of the affair?”

“I dare say he does, though he didn’t mention it,” replied the reporter.

“Suppose you see Richards and get the date— exactly, if possible,” remarked The Thinking Machine. “You might telephone it to me. Perhaps—” and he shrugged his slender shoulders.

“You think there is a possibility of solving the riddle?” demanded the reporter eagerly.

“Certainly,” snapped The Thinking Machine. “It requires no solution. It is ridiculously simple,— obvious, I might say,— and

yet I dare say the girl Richards referred to has been the victim of some huge plot. It's worth looking into for her sake."

"Remember, it happened three years ago," Hatch suggested tentatively.

"It wouldn't matter particularly if it happened three hundred years ago," declared the scientist. "Logic, Mr. Hatch, remains the same through all the ages— from Adam and Eve to us. Two and two made four in the Garden of Eden just as they do now in a counting house. Therefore, the solution, I say, is absurdly simple. The only problem is to discover the identity of the principals in the affair— and a child could do that."

Later that afternoon Hatch telephoned to The Thinking Machine from the Mummers Club.

"That date you asked for was May 19, three years ago," said the reporter.

"Very well," commented The Thinking Machine. "Drop by tomorrow afternoon. Perhaps we can solve the riddle for Richards."

Hatch called late the following afternoon, as directed, but The Thinking Machine was not in.

"He went out about nine o'clock, and hasn't returned yet," the scientist's aged servant, Martha, informed him.

That night about ten o'clock Hatch used the telephone in a second attempt to reach The Thinking Machine.

"He hasn't come in yet," Martha told him over the wire. "He said he would be back for luncheon; but he isn't here yet."

Hatch replaced the receiver thoughtfully on the hook. Early the following morning he again used the telephone, and there was a note of anxiety in Martha's voice when she answered.

"He hasn't come yet, sir," she explained. "Please, what ought I to do? I'm afraid something has happened to him."

"Don't do anything yet," replied Hatch. "I dare say he'll return to-day."

Again at noon, at six o'clock, and at eleven that night Hatch called Martha on the telephone. Still the scientist had not

appeared. Hatch too was worried now; yet how should he proceed? He didn't know, and he hesitated to think of the possibilities. On the morrow, however, something must be done — he would take the matter to Detective Mallory at police headquarters if necessary.

But this was made unnecessary unexpectedly by the arrival next morning of a letter from The Thinking Machine. As he read, an expression of utter bewilderment spread over Hatch's face. Tersely the letter was like this:

Employ an expert burglar, a careful, clever man. At two o'clock of the night following the receipt of this letter go with him to the alley which runs behind No. 810 Blank Street. Enter this house with him from the rear, go up two flights of stairs, and let him pick the lock of the third door on the left from the head of the stairs. Silence above everything. Don't shoot if possible to avoid it.

VAN DUSEN.

P.S. Put some ham sandwiches in your pocket.

Hatch stared at the note in blank bewilderment for a long time; but he obeyed orders. Thus it came to pass that at ten minutes of two o'clock that night he boosted the notorious Blindy Bates— a man of rare accomplishments in his profession, who at the moment happened to be out of prison— to the top of the rear fence of No. 810 Blank Street. Bates hauled up the reporter, and they leaped down lightly inside the yard.

The back door was simplicity itself to the gifted Bates, and yielded in less than sixty seconds from the moment he laid his hand upon it. Then came a sneaking, noiseless advance along the lower hall, to the accompaniment of innumerable thrills up and down Hatch's spinal column; up the first flight safely, with Blindy Bates leading the way; then along the hall and up the second flight. There was absolutely not a sound in the house— they moved like ghosts.

At the top of the second flight Bates shot a gleam of light from his dark lantern along the hall. The third door it was. And a moment later he was concentrating every faculty on the three locks of this door. Still there had been not the slightest sound. The one spot in the darkness was the bull's eye of the lantern as it illuminated the lock. The first lock was unfastened, then the second, and finally the third. Bates didn't open the door— he merely stepped back— and the door opened as of its own volition. Involuntarily Hatch's hand closed fiercely on his revolver, and Bates's ready weapon glittered a little in the darkness.

"Thanks," came after a moment, in the quiet, querulous voice of The Thinking Machine. "Mr. Hatch, did you bring those sandwiches?"

Half an hour later The Thinking Machine and Hatch appeared at police headquarters. Being naturally of a retiring, unostentatious disposition, Bates did not accompany them; instead, he went his way fingering a bill of moderately large denomination.

Detective Mallory was at home in bed; but Detective Cunningham, another shining light, received his distinguished visitor and Hatch.

"There's a man named Howard Guerin now asleep in his state room aboard the steamer *Austriana*, which sails at five o'clock this morning— just an hour and a half from now— for Hamburg," began The Thinking Machine without any preface. "Please have him arrested immediately."

"What charge?" asked the detective.

"Really, it's of no consequence," replied The Thinking Machine. "Attempted murder, conspiracy, embezzlement, fraud— whatever you like. I can prove any or all of them."

"I'll go after him myself," said the detective.

"And there is also a young woman aboard," continued The Thinking Machine,— "a Miss Hilda Fanshawe. Please have her detained, not arrested, and keep a close guard on her— not to

prevent escape, but to protect her.”

“Tell us some of the particulars of it,” asked the detective.

“I haven’t slept in more than forty-eight hours,” replied The Thinking Machine. “I’ll explain it all this afternoon, after I’ve rested a while.”

The Thinking Machine, for the benefit of Detective Mallory and his satellites, recited briefly the salient points of the story told by the actor, Watson Richards. His listeners were Howard Guerin, tall, keen faced, and clean shaven; Miss Hilda Fanshawe, whose pretty face reflected her every thought; Hutchinson Hatch, and three or four headquarters men. Every eye was upon the drawn face of the diminutive scientist, as he sat far back in his chair, with squint eyes turned upward, and fingertips pressed together.

“From the facts as he stated them, we know beyond all question, in the very beginning, that Mr. Richards was used as a tool to further some conspiracy or fraud,” explained The Thinking Machine. “That was obvious. So the first thing to do was to learn the identity of those persons who played the principal parts in it. From Mr. Richards’ story we apparently had nothing, yet it gave us practically the names and addresses of the persons at the bottom of the thing.

“How? To find how, we’ll have to consider the purpose of the conspiracy. An actor— an artist in facial impersonation, we might say— is picked up in the street and compelled to go through the mummery of a death bed scene while stupefied with drugs. Obviously this was arranged for the benefit of some person who must be convinced that he or she had witnessed a dissolution and the signature of a will, perhaps,— and a will signed under the eyes of that person for whose benefit the farce was acted.

“So we assume a will was signed. We know, within reason, that the mummery was arranged for the benefit of a young woman— Miss Fanshawe here. From the intricacy and daring of the plot, it was pretty safe to assume that a large sum of money

was involved. As a matter of fact, there was— more than a million. Now, here is where we take an abstract problem and establish the identity of the actors in it. That will was signed by compulsory forgery, if I may use the phrase, by an utter stranger — a man who could not have known the handwriting of the man whose name he signed, and who was in a condition that makes it preposterous to imagine that he even attempted to sign that name. Yet the will was signed, and the conspirators had to have a signature that would bear inspection. Now, what have we left?

“When a person is incapable of signing his or her name, physically or by reason of no education, the law accepts a cross mark as a signature, when properly witnessed. We know Mr. Richards couldn’t have known or imitated the signature of the old man he impersonated; but he did sign— therefore a cross mark, which could have been established beyond question in a court of law. Now, you see how I established the identity of the persons in this fraud. I got the date of the incident from Mr. Richards, then a trip to the surrogate’s office told me all I wanted to know. What will had been filed for probate about that date which bore the cross mark as a signature? The records answered the question instantly— John Wallace Lawrence.

“I glanced over the will. It specifically allowed Miss Hilda Fanshawe a trivial thousand dollars a year, and yet she was Lawrence’s adopted daughter. See how the joints began to fit together? Further, the will left the bulk of the property to Howard Guerin, a Mrs. Francis,— since deceased, by the way,— and one Frank Hughes. The men were his nephews, the woman his niece. The joints continued to fit nicely, therefore the problem was solved. It was an easy matter to find these people, once I knew their names. I found Guerin— Mr. Richards knew him as Hallman— and asked him about the matter. From the fact that he locked me up in a room of his house and kept me prisoner for two days I was convinced that he was the principal conspirator, and so it proves.”

Again there was silence. Detective Mallory took three long

breaths, and asked a question. "But where was John Wallace Lawrence when this thing happened?"

"Miss Fanshawe had been in Europe, and was rushing home, knowing that her adopted father was dying," The Thinking Machine explained. "As a matter of fact, when she returned Mr. Lawrence was dead— he died the day before the farce which had been arranged for her benefit, and at the moment his body lay in an up stairs room. He was buried two days later— a day after the farce had been played— and she attended his funeral. You see there was no reason why she should have suspected anything. I don't happen to know the provisions of Lawrence's real will, but I dare say it left practically everything to her. The thousand-dollar allowance by the conspirators was a sop to stop possible legal action."

The door of the room opened, and a uniformed man thrust his head in. "Mr. Richards wants to see Professor Van Dusen," he announced.

Immediately behind him came the actor. He stopped in the door and stared at Guerin for a moment.

"Why, hello, Hallman!" he remarked pleasantly. Then his eyes fell upon the girl, and a flash of recognition lighted them.

"Miss Fanshawe, permit me, Mr. Richards," said The Thinking Machine. "You have met before. This is the gentleman you saw die."

"And where is Frank Hughes?" asked Detective Mallory.

"In South Africa," replied the scientist. "I learned a great deal while I was a prisoner."

A deeply troubled expression suddenly appeared on Hutchinson Hatch's face that night when he was writing the story for his newspaper, and he went to the telephone and called The Thinking Machine.

"If you were guarded so closely as a prisoner in that room, how on earth did you mail that letter to me?" he inquired.

"Guerin came in to say some unpleasant things," came the reply, "and placed several letters he intended to post on the

table for a moment. The letter for you was already written and stamped, and I was seeking a way to mail it, so I put it with his letters and he mailed it for me.”

Hatch burst out laughing.

27. The Problem of the Ghost Woman

RUBY REAGAN, expert cracksman, was busily, albeit quietly, engaged in the practice of his profession. His rubber soles fell silently upon the deep carpet as he stepped into the utter gloom of the study and closed the door noiselessly behind him. For a long time he stood perfectly still, listening, feeling with that vague single sense for the presence of some one else; then he flashed his electric light. A flat topped library table was directly in front of him, littered over with books, and to his left were the bulky outlines of a roll top desk. There were some chairs, a cabinet or so, and rows of bookcases.

His scrutiny, brief but comprehensive, seemed to satisfy Reagan; for the light went out suddenly, and, turning in his tracks, he slid the bolt of the door into its socket slowly, to avoid even a click. Next he released the grips on one of the windows, for it might be necessary to leave the room that way in the event of some one entering by the single door. Then he settled down to work. First was the desk, and after a long, minute inspection of the lock he dropped on his knees before it and began trying his skeleton keys. The electric flash, with the light fixed, was on the left leaf of the desk, brightly illuminating the lock and lending a deeper glow of ruby red to his hair. On the right leaf of the desk, within instant reach, was his revolver.

It was nearly half an hour before the lock yielded, and then, with a sigh of relief, Reagan carefully pushed up the roll top. Inside he found a metal box. From a score of pigeonholes he dragged forth papers of all descriptions, ruthlessly scattering them about him after a quick examination of each in turn. Then

he went through drawer after drawer, carefully scrutinizing each article before he laid it down.

"Guess it's in the box," he mused at length.

Sitting flat upon the floor, with the box between his knees, he lavished his talents upon it. After a few minutes the lock clicked, and the metal lid lifted. Again Reagan smiled, for here were packages and packages of banknotes. But after a moment they too were spilled out on the floor. It was something else he sought.

"Now, that's funny," he told himself finally. "It isn't here." He paused thoughtfully, while his eyes rested lovingly upon the packages of money. "Of course, if I can't get what I want I'll take what I can get," he went on at last. And he proceeded to stuff the money away in his pockets.

Several times he ran his fingers slowly through his red hair. It was plain that he was deeply puzzled. He was on the point of rising to continue his investigations in other directions, when he heard something. It was a voice— a quiet, soothing, pleasant voice— about fourteen inches behind his right ear.

"Don't try to get your revolver, please!" the voice advised. "If you do, I'll shoot!"

Involuntarily Reagan's hand darted out toward the weapon on the leaf of the desk; but it was drawn back as suddenly when he heard a sharp click behind him. Nonplussed for the moment, he sat down again on the floor, half expecting a shot. It didn't come, and he screwed his head around to see why.

What he saw astounded him. It was a diaphanous, floating, lacy, white something— the figure of a girl. Or was it a girl? The head was sheathed in white, the features covered by a misty, hazy, veily thing, and in the dim reflected light the whole figure seemed ridiculously unsubstantial. It was a girl's voice, though.

"Sit perfectly still, please, and don't make any noise!" the voice advised again. Yes, it was a girl's voice.

Reagan noted the small, gold mounted revolver in her right hand, with the barrel, at just that moment, on a direct line with

his head and only a foot or so away; and he noted that it remained steadily where it was without one tremor or quiver.

"Yes'm," he said at last.

The white figure walked around him— or did it float?— and picked up his revolver from the desk.

"This is Mr. Reagan, isn't it?" she inquired.

"Yes'm," responded Reagan. The admission was surprised out of him.

"Did you find it?"

"No'm."

Was this thing real? Reagan rubbed his eyes doubtfully. He was dreaming, of course. He would wake up in a minute. He opened his eyes again. Yes, there she was. But she wasn't real,— she couldn't be real,— she was a ghost. She was certainly not in the room when he entered, and she could not have come in since, because he had bolted the door on the inside.

"I shall trouble you now, Mr. Reagan," the ghost woman went on, "to take all that money from your pocket and put it back in the box."

Reagan stared at the end of the revolver a moment, and the ghost woman wriggled it. That was real enough, anyway. Promptly and without a word he began to disgorge packages of banknotes. Then at last looked up again.

"You put back only eight packages," said the ghost woman calmly. "You took out nine."

"Yes'm," said Reagan.

He fished through his pockets again, in a semi-hypnotic condition, produced more money, and deposited it with the other. He closed the metal lid and snapped the lock.

"That will do very nicely," she said approvingly. "Now I shall trouble you, please, to go on about your business."

Reagan started to rise, awkwardly enough, on hands and knees. The ghost woman stepped back a little; but still she was not far enough away, for when Reagan suddenly came to his feet his outstretched arms struck her violently beneath the

wrists and sent the two revolvers flying upward. With another quick movement he swept the electric light from the desk, extinguishing it. There was a sound of scuffling feet in the darkness, as of persons struggling, a little despairing cry, then finally a pistol shot.

Reagan stumbled blindly about the room, seeking the door. He found it at last, still bolted on the inside, and tugged at it frantically. Then came the sound of heavy feet running along the hall outside toward the study, and Reagan stopped. The window! It was the only way now! The shot had aroused the household. He rushed toward the window; but it refused to move.

The clamor was at the door. Desperately Reagan sought for the side grips on the window; but they seemed to have disappeared. The door trembled as some heavy body was hurled against it. The bolt would yield— it was yielding— Reagan heard the woodwork crack. Then deliberately he drove his clenched fist through the glass, took one step on a chair and hurled himself straight through. The door crashed under the onslaught and swung inward.

ON THE following morning Chester Mills, a wealthy merchant, called on Detective Mallory, chief of the bureau of criminal investigation.

"I own a large country estate forty miles out of town," Mills began abruptly. "Yesterday was the last day of the month. I went to the bank and drew nine hundred dollars, and placed it in a metal box in my desk at home and locked both the box and desk.

"I went to bed at eleven o'clock. About two o'clock this morning I heard a pistol shot in the study. I jumped out of bed and rushed into the hall toward the study, meeting on the way one of my servants, O'Brien. We found the study locked, and started to smash the door in. As we did so we heard a great crash of glass inside.

"Then we did smash the door, and O'Brien turned on the electric lights. One of the two windows was smashed out as if somebody had jumped or been thrown through it; my desk had been ransacked, and my papers scattered all over the floor. The desk was standing open, and I picked up the box. It had a bullet hole in it. The ball went in the top and came out the side. I found it sticking in the desk. It was thirty-two caliber. Here it is."

Mills tossed the misshapen leaden missile on the table, and Detective Mallory examined it.

"Then I found the first real puzzle," Mills went on. "I opened the box and counted the money. Instead of any of it being missing, there was more there than there was when I put the box in the desk. Where there had been only nine hundred dollars, verified by the paying teller and myself, there was now nine hundred and ten dollars— an extra ten-dollar bill."

Detective Mallory chewed his cigar frantically.

"O'Brien found a soft black hat in the room, near the door," continued Mills, "a revolver, thirty-eight caliber, with every chamber loaded, an overcoat, an electric flashlight which had been thrown to the floor and broken, and a very complete kit of burglar's tools. I straightened the women folk all out, had the house searched, and went back to bed. So far as I have been able to find out, nothing was stolen— nothing is missing."

"Well, in that case—" began the detective.

"I haven't started yet," interrupted Mills tersely. "The window was out, as I said; so when we went to bed again we left O'Brien in the study on watch. About half-past three o'clock I was awakened again by a scream— a woman. Again I jumped out and ran along toward the study. The lights were going, but there was no sign of O'Brien. I presumed then that his attention had been attracted by the scream and he had gone to investigate. But— Well, O'Brien has disappeared. No one has seen or heard of him since— there's not a trace."

Detective Mallory sat for a long time silently smoking, and staring into the eyes of his caller.

At this point the problem came under the observation of that eminent logician, Professor Augustus S. F. X. Van Dusen—The Thinking Machine. As Hutchinson Hatch, reporter, related the known facts, the distinguished man of science permitted his eyes to narrow down to mere slits of watery blue, and the tall, dome-like forehead was deeply furrowed.

“Why was any shot fired?” Hatch demanded of the scientist in perplexity. “And who fired it? Were there two burglars? Did they fight? Was one wounded? There were bloodstains on the ground outside the window; but we can see that whoever jumped out might have cut himself on the glass. And why was the hole shot in the tin box? Not to break the lock, obviously; for it could have been taken along. Where does the odd ten-dollar bill in the box figure? Where is O’Brien? Who was the woman who screamed that second time? Why did she scream? Why wasn’t something stolen?”

Having relieved himself of this torrent of questions, Hatch dropped back into his chair expectantly and lighted a cigarette. The Thinking Machine permitted two disapproving eyes to settle on the young man for a moment.

“And still you haven’t asked the one vital question,” he remarked tartly. “That is, What particular object in that study, or supposed to be in that study, is of such great importance to some one unknown that two bold, daring I might say, attempts were made to get it in the same night?”

“It seems to me it would be impossible to learn that, until—”

“Nothing is impossible, Mr. Hatch. It is merely a little sum in arithmetic. Two and two make four; not sometimes but all the time. This problem, at the moment, seems remarkably disjointed, particularly when we consider the disappearance of O’Brien. First, then, is Mr. Mills positive nothing was stolen?”

“Absolutely so,” replied Hatch. “He has checked off every paper, and accounted for every article.”

The furrows in the tall brow deepened perceptibly, and for a long time the crabbed little scientist sat silent. “How much blood

was found outside?" he asked suddenly.

"Quite a good deal of it," Hatch responded. "It looks as if some one, whoever jumped or was thrown out, received some nasty cuts. The edges of the glass are stained."

The Thinking Machine nodded. "It is established beyond all question that the woman who screamed that second time was not one of those in the house?" he asked.

"Oh, yes," returned Hatch confidently. "They had all retired after the first fright, and the second didn't even arouse them. They didn't know of O'Brien's disappearance until morning."

"The police have found nothing yet?"

"Not yet. The articles left in the room, of course,— the hat and coat and burglar's tools,— are clues that they are working on. They might establish identity by their aid."

"Well, we'll have to find the man who jumped," remarked the scientist placidly. "When we do that, we can go somewhere with this affair."

"Yes, when we do that," Hatch agreed, with a grin.

"Of course we can do it!" snapped The Thinking Machine. "Here we seek a man with neither hat nor overcoat, who is cut up with glass, possibly badly wounded."

"But he's the sort of man who would scuttle to cover like a scared rabbit," Hatch protested. "Wouldn't matter how badly hurt he was, if he could walk he would hide."

"You seem to think, Mr. Hatch, that leaping through a window, taking all the glass with you, and falling twenty feet to a hard pavement, is a trivial affair," declared the scientist crabbedly. "If this man wasn't badly hurt, it's a miracle; therefore—" He stopped abruptly and squinted at the newspaper man. "I'm going to state a case and ask you a question," he went on suddenly. "Before I do it I'll write the answer you will give on this bit of paper. You are an intelligent man; so I'll demonstrate to you how intelligent minds run in the same channel."

He scribbled a few words hurriedly, folded the paper twice,

and handed it to the reporter.

"Now you are the burglar," he resumed, "a man perhaps well known to the police. You jumped from that window and hurt yourself seriously. You need medical attention; yet you can't afford to run the slightest risk of capture. You have no hat or coat. You go to physician, not too near the scene of the affair, and you tell a story to account for your condition. What could you say to do away with all suspicion, and make yourself perfectly safe, at least for the moment?"

Hatch smiled whimsically as he turned and twisted the scrap of paper in his fingers, then lighted a cigarette and got down to the matter in hand seriously.

"I think," he said at last slowly, and feeling unaccountably sheepish about it, "that the safest story to tell the physician would be that I had been thrown from an automobile, lost my hat, say, cut myself going head foremost through the glass front when the car ran away, badly bruised by the violence with which I hit the ground; and all that sort of thing."

The Thinking Machine glared at him aggressively for an instant, then arose and left the room. Hatch drew a long breath, then opened the folded paper reluctantly. He found only these words:

"Runaway automobile— cut by diving through glass front— hat lost— bruises and other lacerations by fall to ground."

When the scientist returned, he wore his hat and overcoat.

"Mr. Hatch, go at once to Mr. Mills, and inquire if he has yet learned of anything being missing from the study— a paper of some sort, in all probability," he instructed. "Then, without mentioning the matter to him, take other steps to learn the nature of any litigation which might be pending in which he is concerned— I imagine something is either now going on or will be going on in a few days. Run by this evening to see me."

"Are you going with me?" inquired the reporter.

"No, no," responded the scientist impatiently. "I'm going to see the man who jumped out of the window."

When Ruby Reagan, expert cracksman, awoke to consciousness he found himself gazing straight into two squinting blue eyes, magnified beyond all proportion by the thick spectacles through which he saw them. The eyes were set far back in a thin, drawn face, and above them was a shock of straw yellow hair.

"Be perfectly quiet," said The Thinking Machine. "You are safe enough, and in a day or so you will be all right."

"Who are you?" demanded Reagan suspiciously.

"I am acting for the gentleman who employed you to get that— that document from Mr. Mills's study," replied the scientist glibly. "You are in my home. The doctor fixed you up, and I brought you here as soon as I found you. He doesn't suspect anything. He thinks you were injured in an automobile accident, as you said."

The cracksman closed his eyes to think about it. Weakly, for he had lost much blood, he gradually pieced together a shattered recollection of events of the last few hours,— the jump, his hurts, that staggering run through deserted streets to get away from that place, the final collapse at the very door of a physician, the muttered story he told to account for his wounds. Then he looked again into the inscrutable face of The Thinking Machine. It all seemed regular enough.

"The cops don't know?" he demanded suddenly.

"No," replied The Thinking Machine emphatically. "Who fired the shot?"

"The ghost lady," replied the cracksman promptly. "Guess she didn't mean to, though, cause she seemed as anxious to be quiet as I was."

"And of course you jumped when you heard some one at the door?"

"Betcher neck!" replied Reagan grimly. "The cops ain't never had me yet, an' I don't intend to break no record."

"And the ghost lady," resumed the scientist. "Tell me about her."

And then the story of the strange happenings in the study that night as Reagan recalled them was told. "And I didn't get the paper at that," he concluded.

"You say the ghost lady was all in white?"

"Sure," was the reply. "I don't know really whether she was a ghost or not; but she started the mix-up." He was silent for a moment. "But let me tell you she must have been a ghost. She couldn't have got in that room any other way. She slid in through the keyhole or something."

"And she called you by name, you say?"

"Yes. That's another thing that makes me think she's a ghost. How did she know my name. And why did she ask me if I got it?"

HUTCHINSON Hatch called an hour later. There was something of elation, excitement nearly, in his manner. He found The Thinking Machine stretched out in a huge chair in the laboratory, with unruffled brow, and idly twiddling fingers.

"The litigation, Mr. Hatch," said the latter without turning.

"Well, there are a dozen cases in which he is interested one way or another," Hatch informed him; "but there is one particularly—"

"Something about property rights, I imagine?" interrupted the scientist.

"Yes," said the reporter. "There's a fortune involved, and a vast deal of real estate. A business partner of Mills, Martin Pendexter by name, died three or four years ago and his grandson, now about twenty-two years old, is suing to recover certain money and property from Mills, alleging that Mills assumed it as his own when Pendexter died. Mills has steadfastly refused to go into the matter, or even discuss it, and finally the boy brought the suit. It has been postponed several times; but it's to come up for hearing soon."

"Mr. Mills, then, holds title to this property?" inquired The Thinking Machine.

"I presume if he hadn't felt safe in his position he would not

have permitted the matter to go into court," replied Hatch. "I figure that Mills does hold a release from Pendexter of the property, and intends to produce it in court. He has advised the boy several times not to sue; but would never give a reason."

"Oh!" and for a long time the scientist sat silent. "Of course — of course," he mused, half aloud. "Then the ghost woman was one of the—"

"And there's another thing," Hatch rushed on impatiently. "Detective Downey told me a little while ago the police have established the identity of at least one person who was in the study that night, by the kit of tools left behind. His name is Ruby Reagan."

"Ruby Reagan," repeated the scientist thoughtfully. "Oh, yes. He's asleep in the next room there."

The Thinking Machine was talking; Mills, Detective Mallory, and Hutchinson Hatch were listening.

"There is no puzzle about it at all," declared the scientist. "Briefly what happened was this: A burglar was employed by a man who is suing you, Mr. Mills, to go into your study and find, if indeed such a thing is in existence, the document upon which you must depend to prove your title to the Pendexter property now in dispute.

"Well, this burglar went to that study and looked for that document— vainly, I may say here. While looking for that he found the money in the box. He was tempted then, contrary to orders, perhaps, and put this money in his pocket. Later he was compelled at the point of a revolver to put the money back in the box, and in his hurry to obey orders he put in a ten-dollar bill of his own. The person who compelled him to replace the money was— was—"

He paused, wrote something on a slip of paper, and passed it to Mills.

"What!" exclaimed Mills incredulously.

"No names, please— yet, anyway," broke in the scientist. "Anyway, it was a woman, I may say a woman of great courage,

even audacity. She had gained possession of the burglar's revolver, and with two weapons ordered him to go. The burglar precipitated a struggle, a shot was fired by accident, perhaps, and that is the shot which went through the tin box. The burglar jumped through the window and escaped. The woman, who was in the room, perhaps behind the curtain of the door when the burglar entered, had come there to get that particular document he was seeking. At the time he jumped we can imagine how she managed to get out into the hall when the door flew open, and you and your man O'Brien entered.

"The next we know of that woman she was with the others screaming. A little logic shows us that after that first fright, when the house was perfectly still again, the woman, not knowing O'Brien was on watch, returned to that study again to seek that document. He was sitting in the dark, heard her, and flashed on the electric lights. She was surprised, she screamed, was recognized by O'Brien, and then for some consideration that does not appear— probably a bribe— induced O'Brien to disappear. Again she avoided discovery, and if an investigation had been made she would have been found in bed, I dare say.

"Being totally ignorant now, of the incidents leading up to the pistol shot and the burglar's escape, the first point that the logical mind can seize upon is the finding of more money in the tin box than was known to be there. Therefore, we know that that box had been opened, and we know that the burglar was either an honest man or was compelled to be honest. We know too from the fact that a thirty-eight caliber revolver was found, that there was a second revolver— the one from which the shot was fired. Burglars are not honest. Was this one compelled to be honest? What honest person could be in that room alone with that burglar, remember? You see instantly a thousand possibilities.

"Without pursuing those possibilities at the moment, it came down to a question of finding the burglar— the dishonest one, I may say. That was not difficult, only tedious work on the

telephone, seeking a doctor who had treated a man who was probably— probably, you note— injured in an automobile accident. I found your Ruby Reagan, Mr. Mallory, and from him I learned just what happened at first— a woman in white, a ghost woman, obviously some woman in the house. White lacy gowns are not popular for street wear at two o'clock in the morning."

"I wonder if this is absolutely necessary, Mr. Van Dusen?" interrupted Mills. His face was white. "I think I understand, and I assure you the matter has taken a personal turn which may mean a great deal to me and my family."

The Thinking Machine waved his hand as if the matter was dismissed.

"For your benefit, Mr. Mills," continued the scientist, "I will state that the motive for the girl's act was one which reflected her great courage, and her loyalty to you— perhaps at the same time her regard for another man. Do you follow me? In some way— perhaps the man told her— she learned of the plan to engage Reagan for the work, and she could have learned of that only from the man by a relationship which partook of love for him. Her loyalty to you and a natural desire to save this man's name in your eyes, led her to seek in person to recover the document. It merely happened that they both visited the study the same night."

The Thinking Machine stopped as if that was all.

"But here, go on," Detective Mallory insisted. "I want to know the rest."

"Suppose, Mr. Mallory, that you find Reagan for yourself?" suggested The Thinking Machine after a long pause. "I did it. Surely you can."

"Where is he? Where did you see him?"

"I saw him at my house," responded the scientist calmly. "I left him there to come here; but a man who confesses what he confessed to me doesn't stay at a place like that if he can help it. The matter is as I have stated it, Mr. Mills. Your reason for refusing to give the young man any explanation of your holding

the property is a good one, I dare say, so I'll not question it."

"I'll tell you," flamed Mills suddenly. "He is not really the grandson of Pendexter. I will be compelled to show that if he sues me— that is why I have advised him not to sue."

"I imagined as much," said The Thinking Machine.

Ruby Reagan left the home of The Thinking Machine in a cab late that night. And a few days later the Pendexter suit was withdrawn by the plaintiff.

28. The Mystery of the Grip of Death

DEEP silence, then a long shuddering wail of terror, a stifled, strangling cry for help, the sound of a body falling, and again deep silence. A pause, and after awhile the tramp, tramp of heavy shoes through a lower hall. A door slammed and a man staggered out into a deserted street, haggard, trembling and with lips hard set. He reeled down the street and turned the first corner, waving his trembling hands fantastically.

Another pause, and spears of light flashed through the black night from the second floor of a great six-story tenement in South Boston, then came the sound of stockinged feet hurrying along the hall. Half a dozen horror-stricken men and women gathered at the door of the room whence had come the cry, helplessly gazing into one another's eyes, waiting, waiting, listening.

Finally, from inside the room, they heard a faint whispering sound as of wind rustling through dead leaves, or the silken swish of skirts, or the gasp of a dying man. They listened with strained attention until the noise stopped.

At last one of the men rapped on the door lightly. There was no answer, no sound. Again he rapped, this time louder; then he beat his fists on the door and called out. Still a silence that was terrifying. Mute inquiry lay in the eyes of all.

"Break in the door," said some one at length, in an awed

whisper.

"Send for the police," said another.

The police came. They smashed in the door, old and rotting from age, and two of them entered the dark room. One of them used his lantern and those who crowded the door heard an exclamation.

"He's dead!"

Peering curiously around the corner of the door the white-faced watchers in the hall saw a man, dressed for bed, lying still on the floor. Two chairs had been over-turned; the bed clothing was disarranged. One of the policemen was bending over the body, making a hurried examination. He finally arose.

"Strangled to death with a rope— but no rope here," he explained to the other. "This is a case for a medical examiner and detectives."

"What's his name?" asked one of the policemen of a man who stood looking in curiously.

"Fred Boyd," was the reply.

"Have a room-mate?"

"No."

The other policeman was fumbling about the table with his light. At last he turned and held up something in his hand.

"Look here," he said.

It was a new wedding ring. The bright gold glittered in the lantern light.

AN HOUR later a man turned from a side street into the avenue where stood the big tenement house, and swung along in that direction. It was the man who had left the lower door soon after the cries were heard on the second floor. Then his face had been haggard, distorted; now it was calm. One might even trace a line of melancholy and regret there.

Around the street door of the tenement was gathered a crowd of half a hundred curious ones, half-clad and shivering in the chill of the night, all craning their necks to see into the hall

over the broad shoulders of a policeman who barred the door.

From a score of windows the heads of other curious ones were thrust out; there was the hum of subdued conversation.

The stranger paused on the outskirts of the little knot and peered curiously into the hall, as others were doing. He saw nothing, and turned to a bystander.

"What is it?" he asked.

"Man murdered inside," was the short response.

"Murdered?" exclaimed the stranger, "who was it?"

"Fellow named Fred Boyd."

A flash of horror passed over the stranger's face and he made an involuntary motion with his hand toward his heart. Then he steadied himself with an effort.

"How was he— he murdered?" he asked.

"Choked to death," said the other. "Somebody heard him yell for help a little while ago, and when a policeman came he smashed in the door and found him dead. The body was still warm."

The stranger's face was white as death now and his lips moved nervously. His hands, thrust deep into his pockets, were clenched until the nails cut the flesh.

"What time did it happen?" he said.

"The cop says about fifteen minutes to eleven," was the reply. "One of the tenants who lived on the second floor, where Boyd had a room, looked at his clock when he got up after he heard Boyd shout, so they know just when it was."

Uncontrollable terror glittered in the stranger's eyes, but none noted it. All were intently looking into the hall waiting for something.

"Medical Examiner Barry and Detective Mallory are up there now," volunteered the bystander. "The body will be coming out in a minute."

Then an awed whisper went around: "It's coming."

The stranger stood peering on as the others did.

"Do they know who did it?" he asked. His voice was tense,

and he fiercely repressed a quaver in it.

"No," said his informant. "I heard, though, that a fellow had been up in Boyd's room to-night, and the man who had the next room heard them talking very loud. They had been playing cards."

"Did the man go out?" asked the stranger.

"Nobody saw him if he did," was the reply. "I guess, though, the police know who he was, and they're probably looking for him by this time. If they don't know, Mallory'll find him out all right."

"Great God!" exclaimed the stranger between his tightly compressed lips.

The other man turned and looked at him curiously.

"What's the matter?" he asked.

"Nothing, nothing," said the stranger, hurriedly. "Look, there it comes— that's all. It's awful, awful, awful."

The big policeman in the door stepped to one side, and men came out bearing a litter, on which lay a grim, grisly something that had been a man. It was covered with a sheet. Beside it were Detective Mallory and Medical Examiner Barry. The little knot of onlookers was silent in the presence of death.

The stranger looked, looked as if fascinated by the horrid thing which lay there, watched them put the litter into the police ambulance, heard the Medical Examiner give some instructions and then Detective Mallory re-entered the house. The wagon drove away.

Turning suddenly, the stranger strode quickly down the avenue to the first corner. There he turned away and was swallowed up in the darkness. After a moment, from a distance, came the sound of a man's footsteps, running.

SEVERAL newspaper men, among them Hutchinson Hatch, went over the scene of the crime with Detective Mallory. It was a square, corner room on the second floor. The furniture consisted only of a bed, a table, a wash stand, chairs, there was

no carpet to cover the gaping cracks in the floor, no curtains on the two windows.

The building was old and poorly constructed. Here a part of the cornice was sagging and broken, there the walls were mouldy; the ceiling was blotched with smoke, over by the steam radiator rats had gnawed a hole big enough to put one's fist in, the single-stemmed gas jet was grimy with dirt.

Of the two windows one was in the back wall and one in the side. Hutchinson Hatch trailed around the room with Detective Mallory. He saw that the two windows were securely fastened down with a sliding catch over the middle of the lower sash; there were no broken panes so that one leaving by the window might have reached in and fastened it after him.

Mr. Mallory explored the closet, but found only the things that belong to a poor man: clothing, an old hat, a battered trunk. There was no opening, the walls were solid. Then Mr. Mallory went to the door that had been smashed in. It was the only door except that of the closet. There was no transom.

Mr. Mallory and the reporter looked at this door a long time. It had been fastened when the police came—barred with an iron rod from one side to the other—held in round, iron sockets, set in the door facing. Neither of the sockets was open at the top; the bar had to be pushed through one straight on across the door into the other.

Thus early in the investigation Hutchinson Hatch saw this problem. If the windows were fastened inside and the murderer could not have passed out that way; if the door was fastened inside with an iron bar in both sockets and the murderer could not have gone that way—What then?

Hatch thought instinctively of a certain scientist and logician of note. Professor Augustus S. F. X. Van Dusen, Ph. D., M. D., LL. D., etc., so-called The Thinking Machine, whom he had occasion to know well because of certain previous adventures in which the scientist had accomplished seemingly impossible things.

"And I think this would stump even him," Hatch said to

himself with a grim smile.

Then he listened as Detective Mallory questioned the various tenants of the house. Briefly the detective brought out these facts:

A man, whose description the detective carefully noted, had called to see Boyd that evening about half past eight o'clock. He had been there many times before. Four persons had seen him this evening in Boyd's room, but no one of these knew his name. Some one passing had seen Boyd playing cards with him.

Shortly after 10 o'clock, when practically every one in the house had gone to bed, a man and woman in the next room heard Boyd's voice and that of his caller raised suddenly as if in argument. This continued for five minutes or so, then it quieted down. Such things were common in the tenement and the man and woman dropped off to sleep, thinking nothing of it.

Some time later, evidently only a few minutes, they were awakened by that pitiful, terror-stricken cry which made them shudder. With others in the house who had been aroused they dressed hurriedly. It was then they heard heavy foot steps in the hall below and the street door opened with a bang.

Both were of the opinion not five minutes could not have elapsed from the time they heard the cry until they stood outside the door where the man lay. They would have heard, they thought, anyone leave Boyd's room after they were awakened by the cry, yet there was no sound from there when they stood in the hall. Then they heard— what?

"It was a peculiar sound," the man explained. "It struck me first that it was the swish of silk skirt, then, of course, as no woman was in the room, it must have been the dying man breathing."

"Silk skirt! Woman! woman! wedding ring!" Hatch thought. Whose was it? How could a woman have escaped from the room when it seemed that it would have been impossible for a man to escape? The questionings concluded, Detective Mallory turned graciously to the representatives of the press who were waiting

impatiently. It was after midnight, dangerously near the first edition time, and the reporters were anxious for the detective's comment.

He was about to begin when another reporter, one of Hatch's fellow workers, entered, called Hatch to one side and said something quickly. Hatch nodded his head and idly fingered a pack of playing cards he had taken from the table.

"Good," he said, "Go back to the office and write the story. I'll 'phone Mallory's statement and tell him that other thing. I want to do a little more work, but I'll be at the office by half-past 2 o'clock."

The reporter went out hurriedly.

"I suppose you boys want to know something about how all this happened?" the detective was saying. He lighted a cigar and spread his feet wide apart. "I'll tell you all I can— not all I know, mind you, because that wouldn't be wise, but how the murder happened, and you can put in the thrill and all that to suit yourself.

"About half-past 8 o'clock to-night a man called here to see Boyd. He knew Boyd very well— was probably a friend of several years' standing— and had called here frequently. We have an accurate description of him. He was seen by several persons who knew him by sight, therefore will be able to absolutely identify him when we arrest him.

"Now, those two men were together in this room for possibly two hours. They were playing cards. More than half the murders on record are committed in the heat of passion. These men quarrelled over their game, probably 'pitch' or 'casino' —"

"It's a pinochle pack," said Hatch.

"Then the crime was committed," the detective went on, not heeding the interruption, "the unknown man was sitting here," and Mallory indicated an overturned chair to his right.

"He leaped like this," and the detective, with a full eye for dramatic effect, illustrated, "seized Boyd by the throat, there was a struggle, notice the other overturned chair— and the

unknown man bore Boyd down gripping his throat. He choked him to death."

"I thought the dead man was undressed when he was found?" asked Hatch. "The bed, too," and he indicated its disordered condition.

"He was, but— but it must have happened as I said," said the detective. He didn't like reporters who asked embarrassing questions. "His victim dead, the murderer went out by that door," and he pointed dramatically.

"Through the keyhole, I suppose?" said Hatch, quietly. "That door was fastened inside as no mere mortal could fasten it after he left the room."

"It's an old burglar's trick to fasten a door after you leave the room," said the detective, loftily.

"How about the wedding ring?"

"Ah!" and the detective looked wise. "There's nothing to be said of that now." He saw suddenly that he had made one mistake and he felt his prestige slipping away. The reporters turned a flood of questions upon him: "How did it happen Boyd was undressed?" "Who put out the gas?" "How would a burglar replace an iron bar like that?" "Do you suspect a burglar?"

Mr. Mallory raised his hand. "I will say absolutely nothing else about the case."

"Let's see if we understand you," said Hatch, and there was a mocking smile on his lips. "The police theory briefly is this: A man came here, there was a quarrel, a struggle; Boyd was killed, choked; then the murderer left this room by that door, possibly through the keyhole or a convenient crack. Then, being dead, Boyd got up, took off his clothes, turned out the gas, lay down on the floor, screamed for help and died again. Is that right?"

"Bah!" thundered Mr. Mallory, on the verge of apoplexy. "Perhaps," he added scornfully, "you know more about it than I do."

"Well, yes, I'll confess that," said Hatch. "I know at least the name of the man who was here to-night, and these other

reporters will know it when their outside men come in."

"You do, eh," demanded Mr. Mallory. "Who is it?"

"His name is Frank Cunningham, a watchmaker of No. 213 — — Street."

"Then he is Boyd's murderer," Mr. Mallory declared. "We'll have him under arrest in an hour."

"He has disappeared," said Hatch, and he left the room.

FROM the South Boston tenement house Hutchinson Hatch went to the undertaking establishment where the body of Fred Boyd lay, made a careful examination of the mark which showed that he had been throttled, and then went in a cab to the home of Professor Van Dusen, The Thinking Machine. As he drove up he noticed a bright light in the professor's laboratory. It was just fifteen minutes past 1 o'clock when he ascended the steps.

The Thinking Machine in person answered the door bell, the leonine head with its shock of yellow hair, the clean shaven face, and the perpetually squinted eyes behind thick glasses standing out boldly and grotesquely in the light from a nearby arc.

"Who is it?" asked The Thinking Machine.

"Hutchinson Hatch," said the reporter. "I saw your light and I was particularly anxious for a little advise, so I thought—"

"Come in," said the scientist, and he extended his long, slender fingers cordially.

Hatch followed the thin, bowed figure of the scientist, which seemed that of a child, into the laboratory where he was motioned to a seat. Then Hatch told the story of the crime, so far as it was known, while the professor sat squinting steadily at him, his long taper fingers pressed together.

"Did you see the man?" asked The Thinking Machine.

"Yes."

"What kind of marks, exactly, were those on his neck?"

"They seemed to be such marks as would be made by a large rope drawn about the throat."

"Was the skin broken?"

"No, but whoever strangled him must have had tremendous strength," said the reporter. "The pressure seemed to have been all around."

The Thinking Machine sat silent for several minutes.

"Door fastened inside with iron bar," he mused, "and no transom, so the bar was not placed back in position. Both windows fastened inside."

"It would have been absolutely impossible for any person to leave that room after Boyd was dead," said the reporter, emphatically.

"Nothing is impossible, Mr. Hatch," said The Thinking Machine, testily. "I thought I had demonstrated that clearly, once. The worst anything can be is extremely difficult— not impossible."

Hatch bowed gravely. He had walked over one of The Thinking Machine's pet hobbies.

"Man was undressed," went on The Thinking Machine. "Bed disordered, chairs overturned, gas out." He paused a moment, then asked: "You reason that the man must have gone to bed after putting out the light, and that his murderer came upon him unawares?"

"That seems to be the only possible thing to imagine," said Hatch.

"And in that case the other man— Cunningham— would not have been there?"

"Precisely."

"What sort of a wedding ring was it?"

"Perfectly new. It didn't seem to have ever been worn."

The Thinking Machine arose from his seat and took down a heavy volume, one of hundreds which lined his walls.

"You don't believe it probable that Cunningham left the room while angry and returned after Boyd was asleep and killed him?" asked The Thinking Machine as he fingered the leaves.

"He couldn't have come back if that door was fastened," said Hatch, doggedly.

"He could have, of course," said The Thinking Machine, "but it is hardly probable. Do you think it reasonable to suppose then that someone hidden in the closet waited until Cunningham was gone and then killed Boyd?"

"That sounds more plausible," said Hatch, after a moment's consideration. "But he couldn't have gone out of that room and fastened the door or window behind him."

"Of course he could have," said The Thinking Machine, irritably. "Don't keep saying he couldn't have done anything. It annoys me exceedingly."

Properly rebuked Hatch sat silent while The Thinking Machine sought something in the book.

"In the event, of course, that somebody was hidden in the room it would make it a premeditated murder, wouldn't it?" asked the scientist.

"Yes, unquestionably," replied the reporter.

"Here is something," said The Thinking Machine, as he squinted into the volume he held. "It is logic reduced to figures. Criminologists agree, practically, that thirty and one-third per cent of all premeditated crimes are committed because of money, directly or indirectly; that two per cent are committed because of insanity; and that the others, sixty-seven and two-thirds per cent, are committed because of women."

Hatch nodded.

"We'll shut out for the time being the matter of insanity— it is only a remote chance; money would hardly enter into the case because of the fact that both men were poor. Therefore, there remains a woman. The wedding ring found in the room also indicates a woman, though in what connection is not clear.

"Now, Mr. Hatch," he continued, glaring at the reporter almost fiercely, "find out all you can about the private life of this man Boyd— it will probably be like every other man of his class — and particularly his love affairs; find out also all you can about Cunningham and his love affairs. If the name of any woman appears in the case at all, find out all about her— and her love

affairs. You understand?"

"Yes," was the reply.

"Don't delude yourself with the thought that it was impossible for anyone to leave that room after Boyd was dead," went on the scientist, with the stubborn persistence of a child. "Suppose this— I don't offer it as a solution— suppose that Boyd had been engaged to be married, that someone else loved the girl he was to marry, that that someone else had hidden in his room until Cunningham went away, then— you see?"

"By George!" exclaimed the reporter. "I never thought of that. But how did he get out?" he added helplessly.

"If a man did do such a thing he would have made every arrangement to leave that room in a manner calculated to puzzle anyone who came after. Mind, I don't say this is what happened at all— I merely suggest it as a possibility until I find more to work on."

Hatch arose, stretched his long legs and thanked The Thinking Machine as he pulled on his gloves.

"I'm sorry I could not have been of any more direct assistance," said the scientist. "When you do these things I ask come back to see me— I may be able to help you then. You see I'm at a tremendous disadvantage in not having seen the place where Boyd was killed. There is one thing, though, which I particularly would like for you to find out for me now— tonight."

"What is it?" asked Hatch.

"This tenement is an old building, I understand. I should like to know if the occupants have ever been annoyed by rats and mice, and if they are so annoyed now?"

"I don't quite see—" began the reporter in surprise.

"Of course not," said The Thinking Machine petulantly. "But I should like to know just the same."

"I'll find out for you."

Hutchinson Hatch had still nearly an hour, and he drove to the tenement in South Boston, to wake up its occupants and ask

them— of all the silly questions in the world— “Are you annoyed by mice?” He set his teeth grimly and smiled.

When he reached the tenement he went straight on to the second floor. The steps ended within a few feet of the door where the crime had been committed. Hatch looked at the door curiously; the police had gone, the room was silent again, hiding its own mystery.

As he stood there he heard something which startled him. It came from the room where Boyd had been found dead. There was no question of that. It was a faint whispering sound as of wind rustling through dead leaves, or the silken swish of skirts, or the gasp of a dying man.

With blood tingling, Hatch rushed to the door and threw it open. He stepped inside, lighting a match as he did so. The room was empty save for the poor furniture. No sign of a living thing!

STRAINING his ears to catch every sound, Hatch stood still, peering this way and that until the match burned his fingers. Then he lighted another and still another, but there was no repetition of the noise. At last the ghostly quiet of the room, its gloom and thoughts of the mystery which its walls had witnessed began to press on his nerves. He laughed shortly.

"A very pronounced case of enlargement of the imagination," he said to himself, and he passed out. "This thing is getting on my nerves."

Then, feeling very foolish, he aroused several persons and inquired solicitously as to whether or not they had ever been troubled with mice or rats, and when this annoyance had stopped, if it had stopped.

The consensus of opinion was that it was a silly thing to ask, but that up to a fortnight ago the rodents had been very bad. Since then no one had noticed particularly. These things, in so far as they related to rodents of any kind, were telephoned to The Thinking Machine.

"Uh, huh," he said over the 'phone. "Thanks. Good night."

From that point on every effort of the police and the press was directed to finding Frank Cunningham, who was openly charged with the murder of Fred Boyd. His disappearance had been complete. If there had been any doubt whatsoever of his guilt, this was convincing— to the police.

It was Hatch's personal efforts that uncovered the fact that Cunningham had had a bank account of \$287 in a small

institution, that on the morning following the mysterious crime in the South Boston tenement a check to “cash” had been presented for the full sum and that check had been honored. This began to look conclusive.

It was also due to Hatch’s personal efforts that the police learned Cunningham was to have been married a week after his disappearance to Caroline Pierce, a working girl of the West End. Then Hatch discovered that Caroline Pierce had also disappeared; that she went away presumably to work on the morning after the murder of Boyd. Where had she gone? No one knew, not even Miss Jerrod, the girl who, with her, occupied a suite of three rooms in the West End. Why had she gone? No one knew that. When had she gone? Still no one knew. When would she return? Again the same answer.

To the reporter there seemed only one plausible explanation. This was that Cunningham had drawn his money from the bank— which he had saved to make a little home for the girl he loved— and they had gone away together. In the natural course of his duty Hatch printed this, and it came to the eyes of the police. Detective Mallory smiled.

But the wedding ring in Boyd’s room?

There was no explanation of that. Boyd had had no love affair so far as any one knew. He had been a hard-working, steady-going man in his trade— electrician employed by a telephone company— and he and Cunningham had been friends since boyhood.

All these things, while interesting in themselves, still threw no light on the actual crime. Who killed Boyd, and why? How did the murderer get away? Hatch had put the question to himself time and again. There was no answer. Thus the intangible pall of mystery which lay over the happenings in the South Boston tenement was still impenetrable.

On the second day after the crime Hatch again consulted The Thinking Machine. The scientist listened patiently and carefully, but without any enthusiastic interest to the reporter’s recital of

what he had discovered.

"Have you a man watching the place where the girl lives?" he asked.

"No," Hatch replied. "I think she's gone for good."

"I don't think so," said The Thinking Machine. "I should send a man there to see if she returns."

"If you think best," said Hatch. "But don't you think now this man Cunningham must have been the criminal?"

The scientist squinted at the reporter a long time, seemingly having heard nothing of the question.

"It looks that way to me," Hatch went on, hesitatingly. "But frankly, I can't imagine a way that he might have left that room after Boyd was dead."

Still the scientist was silent, and the reporter nervously fingered his hat.

"That information you gave me about the rats was very interesting," said The Thinking Machine at last, irrelevantly.

"Perhaps, but I don't see how it applies."

"Looking out the windows of the room where Boyd was found, what did you see?" the scientist interrupted.

Hatch did not recall that he had ever looked out either of the windows; he had merely satisfied himself that neither had been used as a means of exit. Now he blushed guiltily.

"I'm afraid you haven't looked," said The Thinking Machine, testily. "I thought probably you wouldn't have. Suppose we go to South Boston this afternoon and see that room."

"If you only would," said Hatch, delightedly. Here was better luck than he dreamed of. "If you only would," he repeated.

"We'll go now," said The Thinking Machine. He left the room and returned a moment later dressed for the street. The slender, bent figure and the great head seemed more grotesque than ever.

"Before we go," he instructed, "telephone to your office and have a reliable man sent to watch the girl's house. Tell him under no circumstances to try to enter or speak with anyone

there until he hears from us.”

The Thinking Machine stood waiting impatiently while Hatch did this. Then they took a cab to the tenement in South Boston.

“Dear me, what an old, ramshackle affair it is!” commented the scientist as they climbed the stairs.

The door of Boyd’s room was not locked. The furniture and the personal effects of the man had been moved out— taken in charge by the Medical Examiner for possible use at an inquest.

“Just how was this room fastened when Boyd was found?” asked the scientist.

Hatch showed him, at the door and windows. The Thinking Machine was interested for a moment and then looked out the side window. Straight down fifteen feet was a wilderness of ash barrels and boxes and papers— a typical refuse heap of a cheap tenement. Then The Thinking Machine squinted out the back window. There he saw an open space, a rough baseball diamond, intersected at two places by the trampled down rings of a circus.

Perfunctorily he peered into the closet, after which his eyes swept the room in one comprehensive squint. He noted the begrimed condition of the place; the drooping cornice, the smoky ceiling, the gaping cracks in the floor, the rat holes beside the radiator, the dirty gas pipe leading down to a single jet. He leaned against a wall and wrote for several minutes on a sheet of paper torn from his notebook.

“Have you an envelope?” he asked.

Hatch produced one. The Thinking Machine put what he had written into the envelope, sealed it and handed it back.

“There’s something that may interest you some time,” he said, “but don’t open it until I give you permission to do so.”

“Certainly not,” said the reporter, puzzled but without question. “But may I ask—”

“What it is?” snapped the scientist. “No, I will tell you when to open it.”

They descended the stairs together.

"Somewhere to a public telephone," were The Thinking Machine's instructions to the cabby. At a nearby drug store, he disappeared into a telephone booth and remained for five minutes. When he came out he asked for the envelope he had given Hatch and in a little crabbed hand wrote on it:

"November 9-10."

"Keep it," he commanded, as he returned it to the reporter. "Now we'll drive to the girl's place."

When the cab reached the West End address it was a little later than dusk. Caroline Pierce and her girl chum occupied a front apartment on the ground floor. As The Thinking Machine and Hatch were about to enter the building, Tom Manning, another reporter on Hatch's paper, approached them.

"The girl hasn't returned," he reported. "The other girl— Miss Jerrod— came back home from work just a few minutes ago."

"We'll see her," said The Thinking Machine. Then to Manning: "At the end of two minutes, by your watch, after I enter this apartment, ring the bell several times. Don't be afraid. Ring it! If any person runs out, man or woman, hold him. Mr. Hatch, you go to the back entrance of this apartment. Stop any person, man or woman, coming from this suite."

"You believe then—" Hatch began.

"I'll give you two minutes to get to the back door," snapped The Thinking Machine.

Hatch disappeared hurriedly, and for just two minutes, not a second more, The Thinking Machine waited. Then he rang the bell of the apartment. Miss Jerrod appeared at the door. He followed her into the suite.

Manning at the front door waited, watch in hand. When the two minutes were up he rang the bell time after time, long, insistent rings. He could hear it tinkling furiously. Then he heard something else. It was the slamming of a door, a rush of feet and a struggle. Then The Thinking Machine appeared before him.

"Come in," he said, modestly. "We have Cunningham inside."

A LITTLE drama of human emotion was being enacted in the tiny front suite. Frank Cunningham, wanted for the murder of Fred Boyd, sat wearily resigned in the corner furthest from the door under the watchful eye of Hutchinson Hatch. The man was unshaven, haggard, and there lay in his eyes the restless, feverish look of one who lives his life in terror of the law. Caroline Pierce, who was to have been his wife, had flung herself on a couch, weeping hysterically.

Towering above the slender, shrinking figure of The Thinking Machine, Miss Jerrod was bitterly denouncing him for a trick which had given Cunningham into his hands. The scientist listened patiently, albeit unhappily. He couldn't help himself.

"You told me," stormed Miss Jerrod, "that you believed him innocent, and now this— this."

"Well?" said The Thinking Machine meekly.

Miss Jerrod was about to say something else when Cunningham stopped her with a gesture.

"I'm rather glad of it," he said, "or rather I would be if it were not for her," and he indicated Caroline Pierce. "I have never spent such hours of mortal fear as those since the murder of Fred Boyd. Now, somehow, it's a relief to know it must all come out."

"You know you were a fool to try to hide, anyway," said The Thinking Machine, frankly.

"I know I made a mistake— now," replied Cunningham. "But we were afraid— Caroline and I— and I couldn't help it."

"Well, go on with your story," commanded the scientist testily.

Manning, the other reporter, crossed the room and sat beside Hatch, while Cunningham moved over, took a seat beside the couch where the girl lay weeping and gently stroked her hair.

"I'll tell what story I can," he said at last. "I don't know what you'll think of it, but—"

"Pardon me just a moment," said The Thinking Machine. He went to Cunningham and ran his long, slender fingers over the prisoner's head several times. Suddenly he leaned forward and squinted at Cunningham's head.

"What is this?" he asked.

"That is where a silver plate was put in," Cunningham replied. "I was badly injured by a fall when I was about fourteen years old."

"Yes, yes," said the scientist. "Go on with your story."

"I have known Boyd since we were boys together up in Vermont," Cunningham began, "and there, too, I knew Caroline. All three of us came from the same little town— Caroline only two years ago. Boyd and I had been in Boston for seven years when she came. Boyd lived for five years in that— that room in South Boston, where—"

"Never mind," said The Thinking Machine. "Go on."

"Well, Caroline came here two years ago as I said and I believe that Boyd loved her as well as I do," said Cunningham. "But she promised to be my wife and we were to be married next Wednesday—"

"But the night Boyd was killed," interrupted The Thinking Machine impatiently. "Come down to that."

"I went to Boyd's room that night at a few minutes after eight o'clock. We sat for an hour or more and talked of our work, our plans and various things as we played cards— pinochle it was. Neither of us was particularly interested in the game.

"Boyd didn't know of my coming marriage to Caroline and finally I happened to mention her name. I also showed him the wedding ring I had bought that day for her. He looked at it, and asked me what I intended to do with it. I then told him that Caroline and I were to be married.

"He was surprised. I think any man in his position would have been surprised, because I think it was his intention to ask her to marry him. Well, at any rate, he grew angry about it, and I tried

to placate him.

"I guess he was pretty hard hit— worse than I thought— for several times between the deals he picked up the ring and looked at it, then he'd put it down each time on his side of the table.

"After awhile he threw down his hand with the remark that he didn't care to play. 'Now look here, Fred,' I said, 'I didn't think of the thing hitting you so hard.' He replied something about it not being fair to him, though just what he meant I didn't know.

"Then word led to word, until finally I was in a fury at a careless reference he made to Caroline— a thing he would never thought of doing in his proper senses— and demanded an apology. He grew ugly and said still more, and then, somehow, I don't know quite what happened. I know that I had an insane desire to take hold of him— but—"

Cunningham paused and gently stroked the hand of the girl.

"And then?" asked The Thinking Machine.

"You know this hurt on my head was more serious than you may imagine," said Cunningham. "There are times, in moments of anger particularly, when things are not clear to me. I lose myself, I don't know what to do. A surgeon once explained to me why it was but I don't remember."

"I understand," said The Thinking Machine. "Go on."

"Well, from the moment the quarrel became really serious I would not swear to anything that happened," Cunningham resumed. "I know at last I found myself in the lower hall after what seemed a long time, and I remember leaving there, slamming the door behind me.

"I went down the avenue and was almost home when it occurred to me that the ring was in Boyd's room. By that time, too, I was seeing things more clearly. I wanted to go back and talk to Boyd more calmly and see if both of us hadn't said things we should not have said. It was with this double purpose of seeing him and getting the ring that I started back to the tenement.

“Outside, I found a crowd. I wondered why, and asked. One man told me Boyd had been murdered— choked to death; that the police knew who did it and were searching for him. I was terror-stricken, and after the body was taken out I walked away. The terror was on me, and after I turned into a side street I broke into a run. I knew myself, you see, and my own irresponsibility.

“Then, although it was midnight, I came straight here, aroused Caroline and Miss Jerrod and told them both what had happened so far as I knew. There seemed to be nothing else to do but hide; I did it. I remained here, as I thought safely enough. Two or three reporters came and asked questions, and once a detective was here, but Miss Jerrod answered their inquiries satisfactorily and that seemed to be all— until now. To-morrow Caroline and I were going back to Vermont.”

There was a long pause. Caroline pressed the hand of the man she loved to her cheek with a gesture of infinite confidence. The Thinking Machine sat silent with the tips of his long, slender fingers together.

“Mr. Cunningham,” he said at last, “you have not told us the one vital thing. Did you or did you not kill Fred Boyd?”

“I don’t know,” was the reply. “If I only could know!”

“Uh,” grunted The Thinking Machine. “I was afraid you wouldn’t know.”

HUTCHINSON HATCH and Manning, the other reporter, gazed at Cunningham thunderstruck, and from him to The Thinking Machine.

“Don’t know whether or not you killed a man?” asked Hatch incredulously.

“It’s perfectly possible, Mr. Hatch,” said The Thinking Machine, curtly. “I understand, Mr. Cunningham,” he explained. “I suppose you would be perfectly willing to go with me now?”

“No, no, no,” exclaimed Caroline Pierce suddenly, in evident terror.

"Not to the police, Miss Pierce," said The Thinking Machine. He paused a moment and looked at the girl curiously. Of women he knew nothing, and knew he knew nothing. "Perhaps it would assure you, Miss Pierce, if I told you I know that Mr. Cunningham did not kill Boyd."

"You believe he didn't, then?" she asked eagerly.

"I know he didn't," said The Thinking Machine tersely. "Two and two make four not some times, but all the time," he went on enigmatically. "If Mr. Cunningham will come with me now we will establish beyond all doubt the cause of Boyd's death. Do you believe me?"

"Yes," said the girl slowly, and she looked steadily into the squint eyes of the scientist. "I— I have faith in you."

The Thinking Machine coughed, slightly embarrassed, and turned to Hatch with a faint color in his cheeks.

"Well, who did kill Boyd?" asked Hatch, amazed.

"That's what we will now demonstrate," was the reply. "Come on."

After Cunningham had himself assured the girl of his safety the four men passed out into the night— it was nearly 10 o'clock— entered a cab and were driven to the tenement in South Boston. There they passed up the one flight of stairs into the room where Boyd had been found, and after lighting the gas the scientist made one quick survey of the room.

"These walls are awfully thin," he commented petulantly. "If I should fire a pistol in here I might kill someone in another room. Yes, a knife would do better. Have any of you gentlemen a knife— one with a blade that won't break easily?"

"Will this do?" asked Cunningham, and he produced one.

The Thinking Machine examined it and nodded his satisfaction.

"Now a revolver," he said.

Manning went out to get one. While he was gone The Thinking Machine gave some formal instructions to Cunningham and Hatch.

"I'm going to put out this light and remain in this room alone," he said. "I may be here fifteen minutes or I may be here till daylight. I don't know. But I want you three to remain quietly outside the door and listen. When I need you I shall need you quickly. My life may be in danger, and I am not a strong man."

"What is it anyway?" asked Hatch curiously.

"After awhile you will hear something inside, I have no doubt," went on the scientist, paying no attention to the question. "But don't enter the room under any circumstances until I call out or you hear a struggle."

"But what is it?" asked Hatch again. "I don't understand at all."

"I'm going to find the murderer of Fred Boyd," said the scientist. "Please do not ask so many absurd questions. They annoy me exceedingly. I may have to kill him," he added reflectively.

"Kill him?" gasped Hatch. "Who, the murderer?" He couldn't help it.

"Yes, the murderer," was the tart reply.

Manning returned with the revolver, which The Thinking Machine examined and handed to Hatch.

"You will know what to do with it when you enter the room," he instructed. "You, Manning, come in with these other two and light this gas. Keep your matches in your hand."

Then the two reporters and Cunningham passed out of the room, closing the door, but not fastening it. Pressed close against the panels outside, listening, Hatch started to explain to Manning in a whisper when they heard the irritated voice of the scientist.

"Keep silent," was the sharp command.

Five minutes, ten minutes, half an hour of utter silence, save for a distant sound of some sort in the big tenement. But no one came up the stairs. The dim gas light fluttered weirdly down the hall.

A full hour passed, still nothing. Hatch could hear his heart

beat, also he thought the regular breathing of The Thinking Machine. At last there came a slight sound, and Hatch started. The other men heard, too.

It was a faint whispering sound, as of the wind rustling through dead leaves, or the silken swish of skirts or the gasp of a dying man.

Hatch clutched the revolver more firmly and set his teeth hard together. He was going to face something— a deadly, terrible something— and had not the faintest idea of what it might be. Manning held a match ready for instant use.

Then, as they listened, there was another sound, still faint, as of something sliding over the floor. Suddenly there was a heavy thump, a half-strangled cry from The Thinking Machine and the sounds of a fearful struggle. Hatch rushed into the room with revolver raised; Manning was just behind him. A match flared up and they saw a struggling heap on the floor. The arm of the scientist rose and fell thrice, burying the knife each time in flesh.

In the light of the gas, which hissed into a brilliant light under the match, the reporter placed the revolver flat against the head of a writhing, twisting body and fired. For the second time he fired, and the struggling bodies lay still.

Then for the first time Hatch realized what had happened. A giant boa constrictor held The Thinking Machine in its coils and was in its death struggle almost crushing the life out of him. It required the combined efforts of the three men to release the scientist from the deadly folds. He lay still for a moment, but finally the life came back into his frail body with a rush. He raised up from Hatch's arms and looked curiously at the snake.

"Dear me, dear me," he commented. "What a brain would have been lost to scientific inquiry if that snake had killed me."

OCCUPANTS of the house, aroused by the two pistol shots, rushed again terror-stricken to the room, and after awhile the police came and rescued the four men from the besieging mob of questioners. All went to the police station, and there The

Thinking Machine, with several caustic comments on the police in general, told his story. The body of the giant retile lay full length on the floor.

“Mr. Hatch here asked for my advice in the matter,” he explained to the police captain, “and I did what I could to assist him. When he explained the condition of the body and the room when it was broken open— the fact the door and both windows were fastened securely inside— it instantly occurred to me that, with suicide removed as a possibility, the thing which had killed Boyd was still in the room or else had escaped only after the body was found.

“It was not unreasonable to suppose that any animal, a snake for instance, would have attempted to leave the room while a crowd of people blocked the door; in fact it was not unreasonable to suppose that such a snake, snugly fixed in a large, tumble-down building, with the infinite possibility of feeding on rats and mice, would attempt to leave the building at all. It could get water easily from a dozen places.

“Therefore I presumed it was a snake, and I asked Mr. Hatch to ascertain for me first if the people in the house had ever been greatly annoyed by rodents; if they were now, and if not, when they had noticed that they were not. He reported to me that they had been annoyed up to a fortnight preceding the crime, but since they had not noticed. Of course a boa constrictor can live on rodents, therefore they would leave the building or be eaten out of it gradually.

“A fortnight since they missed the rodents? That meant that the snake must have been in the building at least that long. All these conclusion I reached before I personally went over the scene. If it were a snake, as I thought possible, it must have come from somewhere. Where, then?”

The Thinking Machine paused and looked from one to another of his hearers. Each in turn shook his head, Hatch being the last to do so.

“And yet your own paper published a full solution of the

mystery before it ever occurred," said the scientist sharply. "Looking from the back window of the room there, perfectly visible, were three banked rings, plainly where a circus had been. Possibly the snake escaped from that circus and crept into the house.

"I called up your office on the 'phone, Mr. Hatch, and ascertained that there had been a circus on that place two weeks before, November 9 and 10, and further I found that a boa constrictor had escaped from that circus. You printed a column of it on the first page."

"Lord, and we really thought that was a press agent's yarn," remarked Hatch sadly.

"To-night when we went to the room it was my intention to allow the snake to creep out of that large hole near the radiator — I suppose you noticed there was one there?— then to pass between the snake and the hole and call for Mr. Hatch and these other gentlemen who were waiting outside the door. If the snake attacked me I had a knife and Mr. Hatch had a revolver.

"But I'm afraid I didn't give the snake credit for quickness and such enormous strength," he went on ruefully. "I heard the snake come out of the hole, and then instantly almost I felt its folds crushing me. Then these gentlemen rushed in. I can readily understand how it choked Boyd, he having no way to defend himself, and then crawled away when those people knocked on the door. It nearly crushed the life out of me."

That seemed to be all, and The Thinking Machine stopped.

"But Frank Cunningham?" asked the police captain. "Why did he run away, and where is he now?"

"Cunningham?" repeated the scientist, puzzled.

"Yes," said the captain. "Where is he?"

"Why here he is," and The Thinking Machine indicated the accused man. "Mr. Cunningham permit me to introduce you to Captain— er— er. I don't know his name."

The captain was not surprised; he was nonplussed. It had never occurred to him to ask the name of the fourth member of

the party; he knew the two newspaper men.

"How— where— when did you—" he began.

"Not knowing whether or not he had killed his friend Boyd," explained the scientist, "he was hiding in the suite of Miss Caroline Pierce, his fiancé. His lack of knowledge was due entirely to a queer mental condition. He was badly hurt at one time and wears a silver plate in his head. That accounts for many things."

"How did you get him?" asked the captain, amazed.

"I walked into Miss Pierce's suite after I had put a man at the back and front to stop any one who ran out, and told Miss Pierce's friend, Miss Jerrod, that I believed— in fact knew— that Cunningham was innocent, and that I had come merely to warn him," said The Thinking Machine.

"I told her then that three policemen were at the front door, and then Mr. Manning here rang the bell violently, as I had instructed him, and Cunningham dashed out of a rear room and started out the back way. Mr. Hatch got him there. It was perfectly simple— that part of it. Of course, there was a chance that he wasn't there at all— but he was."

The Thinking Machine arose.

"Is that all?" he asked.

"Why did you examine Cunningham's head before he told us his story?" asked Hatch.

"I have some idea of the cranial formation of criminals and I merely wanted to satisfy myself," said the scientist. "It was then that I discovered the silver plate in his head."

"And this?" asked Hatch. He took from his pocket the sealed envelope which The Thinking Machine had given him in the tenement room immediately after he had inspected the room. On this envelope was written "November 9-10", this being the date the circus was in South Boston.

"Oh, that?" said Professor Van Dusen a little impatiently, "that is merely a solution to the mystery."

Hatch opened the envelope and looked at it. There were

only a few words:

*"Snake. Came through hole near radiator. Lived in walls.
Escaped from circus. Cunningham innocent."*

"That all?" again asked The Thinking Machine.

There was no answer, and the scientist and the two newspaper men left the police station, followed by Cunningham.

29. The Jackdaw

MONSIEUR Jean Saint Rocheville lived by his wits, and, being rather witty, he lived rather well. In the beginning he hadn't been Monsieur Jean St. Rocheville at all. Born Jones, christened James Aloysius, nicknamed Jimmie, he had been, first, a pickpocket. Sheer ability lifted him above that; and it came to pass that he graduated from all the cruder professions—second-story work, burglary, and what not—until now, when we meet him, he was a social brigand famous under many names.

For instance, in two cities of the West he was being industriously sought as Wilhelm Van Der Wyde, and was described as of the æsthetic, musical type— young, thick-spectacled, clean-shaven, long-haired, and pale blond, speaking English badly and profusely.

In New York, the police knew him as Hubert Montgomery Wade, card sharp and utterer of worthless checks; and described him as taciturn, past middle age, with fluffy, iron-gray hair, full iron-gray beard, and a singularly pallid face. As we see him, he seemed about thirty, slim, elegant, aristocratic of feature, with close-cut brown hair, carefully waxed mustache, and a suggestion of an imperial. Also, he spoke English with a slight accent.

Monsieur St. Rocheville was smiling as he strode through the

spacious estate of Idlewild, whipping his light cane in the early-morning air of a balmy June day. On the whole, he had little to complain of in the way the world was wagging. True, he had failed, at his first attempt, to possess himself of the superb diamond necklace of his hostess, Mrs. Wardlaw Browne; but it had not been a discreditable failure; there had been no unpleasant features connected therewith, no exposure; not even a shadow of suspicion. Perhaps, after all, he had been hasty. His invitation had several weeks to run; and meanwhile here were all the luxuries of a splendid country place at his command— motors, horses, tennis, golf, to say nothing of a house full of charming women and several execrable players of auction, who insisted on gambling for high stakes. And auction, Monsieur St. Rocheville might have said, was his middle name.

Idly meditating upon all these pleasant things, St. Rocheville dropped down upon a seat in the shade of a hedge overlooking the rose garden, lighted a cigarette, and fell to watching the curious evolutions of three great velvet-black birds swimming in the air above him. Now they rose in a vast spiral, up, up until they were mere specks against the blue void, only to drop sheerly almost to the earth before their wings stayed them; now with motionless pinions, floating away in immense circles; again darting hither and yon swiftly as an arrow flies, weaving strange patterns in the air. Something here for the Wright brothers to learn, Monsieur St. Rocheville thought lazily.

Came finally an odd whistle from the direction of the house behind him. The three birds swooped down with a rush and vanished beyond the hedge. Curiously St. Rocheville peered through the thick-growing screen. On a second-story balcony stood a girl with one of the birds perched upon each shoulder, and the third at rest on her hand.

“Well, by George!” exclaimed St. Rocheville.

As he looked, the girl flipped something into the air. The birds dived for it simultaneously, immediately returning to their perches. Fascinated, he looked on as the trick was repeated. So

this was she, to whom he had heard some one refer as the Jackdaw Girl— the young lady he had caught staring at him so oddly the night before, just after her arrival. He had been introduced to her between rubbers— a charming, piquant wisp of a creature, with big, innocent eyes and cameo features, much given to gay little bursts of laughter. Her name? Oh, yes. Fayerwether— Drusila Fayerwether.

St. Rocheville ventured into the open. Miss Fayerwether smiled, and flung a titbit of some sort directly at his feet. The birds came for it like huge black projectiles. Involuntarily he took a step backward. She laughed.

“They won’t hurt you, really,” she assured him mockingly. “They are quite tame. Let me show you.” She held aloft a slice of toast; the powerful black wings quivered expectantly. “No,” she commanded. The toast fell at St. Rocheville’s feet. Neither of the birds stirred. “Hold it in your left hand,” she directed. Mechanically the astonished young man obeyed. “Extend your right and keep it steady.” He did so. “Now, Blitz!”

It was a command. The bird from her left shoulder, the largest of the three, came hurtling toward St. Rocheville with a shrill scream. For an instant the giant wings beat about his ears, then the talons closed on his right hand in no gentle grip, and man and bird stared at each other. To the young man there was something evil and cruel in the beady, fixed eyes; in the poise of the head on the glistening, snakelike neck; in the merciless claws. And, gad, what a beak! It was a thing to tear with, to mutilate, destroy.

St. Rocheville shuddered. The whole performance was creepy and uncanny. It chilled his blood. It seemed out of all proportion, this exquisite, dainty, pink-and-white girl, and the sinister, somber, winged things—

He drew a breath of relief when Blitz, having solemnly gobbled up his toast, flew away to his mistress.

“They are my pets,” she said affectionately. “Aren’t they beautiful? Blitz and Jack and Jill I call them.”

"Strange pets they are, mademoiselle," remarked St. Rocheville gravely. "How did you come to choose them?"

"Why, I've known them always," she replied. "Blitz here is old enough, and I dare say wise enough, to be my grandfather. He is nearly sixty, and was in my family thirty-five years before I was born. He used to stalk solemnly around my cradle like a soldier on guard, and swear dreadfully. He talks a little when he will— half a dozen words or so. Jack and Jill are younger. From their conduct, I should say they haven't yet reached the age of discretion."

"Would you mind telling me," he questioned curiously, "how a person would proceed to tame a— a flock of flying machines like that?"

"Sugar," replied Miss Fayerwether tersely. "They will do anything for sugar."

"Sugar!" Blitz screamed harshly, ruffling his silky plumage. "Sugar!"

Monsieur St. Rocheville went away to keep a tennis engagement. Miss Fayerwether disappeared into her room, leaving the three birds perched on the rail of the balcony. On the court, Rex Miller was waiting for St. Rocheville with a question:

"Meet the new girl last night? Miss Fayerwether?"

"Yes."

"They say she's a bird charmer," Rex went on. "She charmed me, all right. Gad, I always knew I was a bird!"

In his own apartments again, St. Rocheville, hot from his exertions on the tennis court, was preparing for a cold plunge, when Blitz fluttered in at the window and perched himself familiarly on the back of a chair.

"Hello!" said St. Rocheville.

"Hello!" Blitz replied promptly.

Astonished, the young man burst out laughing— a laugh which died under the steady glare of the beady eyes. Again, for some unaccountable reason, he was possessed of that singular feeling off horror he had felt at first. He shook it off impatiently

and entered the bathroom, leaving Blitz in possession.

He returned just in time to see the big bird darting through the window with something bright dangling from the powerful beak. He knew instantly what it was— his watch! He had left it on a table, and the bird had taken advantage of his absence to steal it. He started toward the window on a run; but, struck by a sudden thought, he stopped, and stood staring into the open, the while he permitted an idea to seep in. Finally he dropped into a chair, his agile mind teeming with possibilities.

Suppose— just suppose— Blitz had been taught to steal? Absurd, of course! Blitz was probably an upright, moral enough bird according to his own lights; but couldn't he be taught to steal? Either Blitz or another bird like him? He had heard somewhere that magpies would filch any glittering thing and secrete it. Why not jackdaws? Weren't they the same thing, after all? He didn't know.

A tame bird, properly trained, cunning, wary, with an innate faculty of making acquaintances, and powerful on the wing!

St. Rocheville forgot all about his watch in contemplation of a new idea. By George, it was worth an experiment, anyway!

There was a light tapping at his door.

"Monsieur St. Rocheville!" some one called.

"Yes?" he answered.

"It is I, Miss Fayerwether. I think I have your watch here. One of my birds came in my window with it from this direction. Your window was open, so I imagine he— he stole it."

St. Rocheville pulled his bath robe about him and peered out. Miss Fayerwether, with disturbed face, held the watch toward him— the great, solemn-looking bird was perched upon one shoulder.

"Hello!" Blitz greeted him socially.

"It is my watch, yes," said St. Rocheville. "Blitz paid me a visit and took it away with him."

"Naughty, naughty!" and Miss Fayerwether shook one rosy finger under the bird's nose. "He embarrasses me awfully

sometimes," she confided. "I can't keep him confined all the time; and he has a trick of picking up any bright thing and bringing it to me."

"Please don't let it disturb you," St. Rocheville begged. "As for you, Monsieur Blitz, I'll keep my eye on you."

Miss Fayerwether vanished down the hall, scolding.

So Blitz had a trick of picking up bright things, eh? Monsieur St. Rocheville was pleased to know it. It was only a question, then, of training the bird to bring the thing he picked up to the right place. Assuredly here was an experiment worth while. In failure or success he was safe. No sane person could blame him for the immoral acts of a bird.

St. Rocheville seemed to have conquered his aversion to Blitz and Jack and Jill, for during the next week he spent hours with them; and hours, too, with their charming mistress. Sometimes he would play games with the birds— curious games— always in the absence of Miss Fayerwether. He would toss bright bits of glass, or even a finger ring, into the grass, or into the open window of his room, and the birds would go hurtling off to search. At length they came to know that there would be a lump of sugar for each on their return, with two pieces for the bird who brought the ring. St. Rocheville found it an absorbing game. He played it for hour after hour, for day after day.

All these things immediately preceded the first public knowledge of that series of robberies within a district of which Idlewild was the center. Miss Fayerwether, it seemed, was the first victim. She had either lost, or mislaid, she said, a diamond and ruby bracelet, and asked Mrs. Wardlaw Browne to have her servants look for it. She pooh-poohed the idea of theft. She had been careless, that was all. Yes, the bracelet was quite valuable; but it would doubtless come to light. She wouldn't have mentioned it at all except for the fact that it was an heirloom.

This politely phrased request opened the floodgates of revelation. Rex Miller had lost a rare scarab stickpin; the elderly Mrs. Scott was minus three valuable rings and an aquamarine

hair ornament; Claudia Chanoler had been robbed of a rope of pearls worth thousands— robbed was the word she used; an emerald cameo, the property of Agatha Blalock, was missing. Following closely upon these mysterious happenings came word to Mrs. Wardlaw Browne of similar happening at the near-by estates of friends. A dozen valuable trinkets had vanished from the Willows where the Melville Pages had a house party; and at Sagamore, Mrs. Willets was bewailing the loss of an emerald bracelet which represented a small fortune.

The explosion came the night Mrs. Wardlaw Browne's diamond necklace was stolen. There had been an unpleasant scene of some sort in the card room. Rex Miller seemed to think that there was more than luck in the cards Monsieur St. Rocheville held; and he intimated as much. All things considered, Monsieur St. Rocheville behaved superbly. Being the only winner at the table, he tore the score into bits, and it fluttered to the floor. The other gentlemen understood that he disdained to accept money so long as a doubt remained. So the game ended abruptly, and they joined the ladies in the drawing-room. Ten minutes later Mrs. Wardlaw Browne's necklace vanished utterly.

So ultimately it came to pass that The Thinking Machine— more properly, Professor Augustus S. F. X. Van Dusen, Ph. D., F. R. S., M. D., LL. D., et cetera, et cetera, logician, analyst, and master mind in the sciences— turned his crabbed genius upon the problem. He consented to do so at the request of Hutchinson Hatch, newspaper reporter; and, singularly enough, it was Monsieur Jean St. Rocheville in person who brought the matter to the reporter's attention. Together they went to The Thinking Machine.

"You know," St. Rocheville took the trouble to explain, "every time I read of a robbery of this sort, either in a newspaper or in fiction, some foreign nobleman is always the villain in the piece." He shrugged his shoulders. "It is an honor I do not desire."

"You are a nobleman, then?" queried The Thinking Machine.

The narrowed, pale-blue, squinting eyes were fixed tensely upon the young man's face.

"No." St. Rocheville smiled.

"Extraordinary," murmured the little scientist. "And who are you?"

"My father and my father's father are bankers in France," St. Rocheville lied gracefully. "The situation at Idlewild is—"

"Where?" The Thinking Machine interrupted curtly.

"Idlewild."

"I mean, where is your father a banker?"

"Paris."

"In what capacity? What's his position?"

"Managing director."

"What bank?"

"Credit Lyonnaise."

The Thinking Machine nodded his satisfaction and dropped his enormous head, with its thick, straw-colored thatch, back against the chair comfortably, his slim fingers coming to rest precisely tip to tip. Monsieur St. Rocheville stared at him curiously. Obviously here was a person who was not to be trifled with. However, he felt he had passed his preliminary examination, unexpected as it was, with great credit. Not once had he forgotten his dialect; not for a fraction of a second had he hesitated in answering the abrupt questions. Ability to lie readily is a great convenience.

"Now," The Thinking Machine commanded, his squinting eyes turned upward, "what happened at Idlewild?"

Inadvertently or otherwise, St. Rocheville failed to refer, even remotely, to the three great velvet-black birds— Blitz and Jack and Jill— in his narrative of events at Idlewild. It was rather a chronological statement of the thefts as they had been reported, with no suggestion as to the manner in which they might have been committed.

"Now," and St. Rocheville spoke slowly, as one who wanted to be certain of his words, "I come down to those things which

happened immediately before the disappearance of Mrs. Wardlaw Browne's necklace. Frankly my own statement will place me in rather a compromising position— that is, my real motive may not be understood— but it is better that I should tell you in the beginning things that you will surely find out."

"Decidedly better," The Thinking Machine agreed dryly. He didn't alter his position.

"Well, you must know that at Idlewild the men play auction a great deal, and—"

"Auction?" The Thinking Machine repeated. "What is auction, Mr. Hatch?"

"Auction bridge," the reporter told him. "A game of cards— a variation of whist."

Monsieur St., Rocheville stared from the wizened little scientist to the reporter incredulously. He would not have believed a person could have lived in a civilized country and not know what auction was. Perhaps he wouldn't have believed, either, that The Thinking Machine never read a newspaper. So circumscribed is our own viewpoint.

"At Idlewild the men play auction a great deal," The Thinking Machine prompted. "Go on."

"Auction, yes," St. Rocheville resumed. "It happens sometimes that the stakes are rather high. On the night Mrs. Wardlaw Browne's necklace was stolen, four of us were playing in the card room— a Mr. Gordon and myself as partners against a Mr. Miller and Franklin Chanoler, the financier." He hesitated slightly. "Mr. Miller had been losing, and in a burst of temper he intimated that— that I— that I— er—"

"Had been cheating," The Thinking Machine supplied crabbedly. "Go on."

"As a result of that little unpleasantness," St. Rocheville continued, "the game ended, and we joined the ladies. Now, please understand that it is not my wish to retaliate upon Mr. Miller. I have explained my motive— I don't want to be made a scapegoat. I do want the actual facts to come out." Some subtle

change passed across his face. "Mr. Miller," he said measuredly, "stole Mrs. Wardlaw Browne's necklace!"

"Miller," Hatch repeated. "Do you mean Rex Miller?"

"That's his name, yes— Rex Miller."

"Rex Miller? The son of John W. Miller, the millionaire?" Hatch came to his feet excitedly.

"Rex Miller is his name, yes," St. Rocheville shrugged his shoulders.

"Oh, that's impossible!" Hatch declared.

"Nothing is impossible, Mr. Hatch," interrupted The Thinking Machine tartly. "Sit down. You annoy me." He shifted his pale-blue eyes, and squinted at Monsieur St. Rocheville through his thick spectacles. "How do you know Mr. Miller stole the necklace?"

"I saw him slip it into the pocket of his dress coat," St. Rocheville declared flatly. "Naturally, I had an idea that, when he drew Mrs. Wardlaw Browne aside immediately after we came out of the card room, it was his intention to— to denounce me as a card sharp. You may imagine that I was watching them both closely, because my honor was at stake. I wanted to see how she took it. It seems that he said nothing whatever to her about the card game; but he did steal the necklace. I saw him hiding it."

Fell a long silence. With inscrutable face The Thinking Machine sat staring at the ceiling. Twice St. Rocheville shifted his position uneasily. He was wondering if his story had been convincing. Adroit mixture of truth and falsehood that it was, he failed to see a single defect in it. Hatch, too, was staring curiously at the scientist.

"I understand perfectly your hesitation in going into details," said The Thinking Machine at last. "Under all the circumstances your motive might be misconstrued; but I think you have made me understand." He rose suddenly. "That's all," he said. "I'll look into the matter to-morrow."

Monsieur St. Rocheville was about to take his departure, when The Thinking Machine stopped him for a last question.

"You used a phrase just now," he said. "I am anxious to get it exactly— something about your father and your father's father —"

"Oh! I said"— Monsieur St. Rocheville obliged— "that my father and my father's father were bankers in Paris."

"That's it," said the little scientist. "Thanks. Good day."

Monsieur St. Rocheville went out. The Thinking Machine scribbled something on a sheet of paper and handed it to the reporter.

"Attend to that when you get to your office," he directed. Hatch read it, and his eyes opened wide. "Also, do you happen to know a native Frenchman who speaks perfect English?"

"I do; yes."

"Look him up, and ask him to repeat the phrase, 'My father and my father's father.' "

"Why?" inquired the reporter blankly.

"When he says it you'll know why. Immediately this other matter is attended to come back here."

Monsieur St. Rocheville's troubled meditations were disturbed by the appearance of Miss Fayerwether around a bend in the walk. Fluttering about her were her pets, Blitz and Jack and Jill. One after another they would swoop down, gobble up a beakful of sugar from her open hand, then sail off in a circle. There was something in the sight of Miss Fayerwether to dispel troubled meditations. She was gowned in a filmy white, clinging stuff, with a wide, flapping sun hat, her cheeks glowing with the sun's reflection, her big, innocent eyes repeating the marvelous blue of the sky.

Monsieur St. Rocheville, at sight of her, arose, bowed formally, and made way for her beside him. She sat down, to be instantly submerged in a fluttering cloud of black wings.

"Go away," she ordered. "I have no more sugar. See?" and she extended her empty hands.

The giant birds wandered off seeking what they might find; and for a time the girl and the young man sat silent. Twice Miss

Fayerwether's eyes sought St. Rocheville's; twice she caught him staring straight into her face.

"Detectives were here to-day," she remarked at last.

"Yes, I know," said St. Rocheville.

"They had a long talk with Mrs. Wardlaw Browne, and insisted on searching the house— that is, the rooms of the guests— but she would not permit it."

"She made a mistake."

"You mean that some one of the guests—"

"I mean there is a thief here somewhere," said St. Rocheville; "and he should be unmasked." (And this from Jimmie Jones, erstwhile pickpocket, burglar, and what not— Jimmie Jones, alias Wilhelm Van Der Wyde, alias Hubert Montgomery Wade, alias Jean St. Rocheville.) "I am willing for them to search my room; you are willing for them to search your room— the others should be."

The young man's lips were tightly set; there was an uncompromising glint in his eyes. His simulation had been so perfect that even he was feeling the righteous indignation of the hopelessly moral. Whatever else he felt didn't appear at the moment. Miss Fayerwether was gazing dreamily into the void.

"Have you ever been to Chicago?" she queried irrelevantly at last.

"No," said Monsieur St. Rocheville. As a matter of fact, Chicago was one of the cities in which there was being made even then an industrious search for Wilhelm Van Der Wyde.

"Or Denver?" the girl continued dreamily.

That was another city in which Wilhelm Van Der Wyde was badly wanted. Monsieur St. Rocheville turned upon Miss Fayerwether suspiciously.

"No," he declared. "Why?"

"No reason— I was merely curious," she replied carelessly. And then again irrelevantly: "Nothing has been stolen from you?"

For answer, St. Rocheville held out his left hand. A heavy

diamond solitaire which he usually wore on his little finger was missing. The print of the ring on the flesh was still visible.

"Oh!" exclaimed Miss Fayerwether; and again: "Oh!" She looked startled. St. Rocheville didn't recall that he had ever seen just such an expression before. "When was your ring stolen? How?"

"I removed it when I got into my bath," St. Rocheville explained. "My window was closed, but my door was unlocked. When I came out of the bath the ring had disappeared— that's all."

"Well"— and there was a flash of indignation in the girl's eyes— "you can't blame that on Blitz, anyway."

"I'm not trying to," said St. Rocheville. "I said my window was closed. My door was closed but unlocked. I don't think Blitz can open a door, can he?"

Miss Fayerwether didn't answer. Once she was almost on the point of saying something further; and, for an instant, there was mute appeal in the innocent eyes as her slim white hand lay on the young man's arm. Then she changed her mind and went on to her room, the birds fluttering along after.

Strange thoughts came to Monsieur St. Rocheville. The light touch on his arm had thrilled him curiously. He found himself staring off moodily in the direction of her window. Also he caught himself remembering the marvelous blue of her eyes! He didn't recall at the moment that he had ever noticed the color of any one's eyes before.

'T WAS AN hour after dinner when The Thinking Machine, accompanied by Detective Mallory, the bright light of the Bureau of Criminal Investigation, and one of his satellites, Blanton by name, with Hutchinson Hatch trailing, appeared at Idlewild. It may have been mere accident that St. Rocheville met them as they stepped out of the automobile.

"I neglected to tell you," he remarked to the scientist, "that young Miller has been losing heavily at auction of late; and I

hear that he has had some sort of a row with his father about his allowance."

"I understand," The Thinking Machine nodded.

"Also," St. Rocheville ran on, "there has been at least one other theft here since I saw you. A diamond ring of mine was stolen from my room while I was in the bath. I wouldn't venture to say who took it."

"I know," The Thinking Machine assured him curtly. "I will have it in my hand in ten minutes."

Indignant at the intrusion of the police in what she was pleased to term her personal affairs— the detectives who had been there before were from a private agency— Mrs. Wardlaw Browne bustled into the room where The Thinking Machine and his party waited. Monsieur St. Rocheville effaced himself.

"Pray what does this mean?" Mrs. Wardlaw Browne demanded.

"It means, madam, that we have a search warrant, and intend to go through your house, if necessary." The Thinking Machine informed her crustily. Through the half-open door he caught a glimpse of a slender figure— a mere wisp of a girl with big, wonder-stuck eyes. "Mallory, close that door. You, madam,"— this to Mrs. Wardlaw Browne— "can assist us by answering a few questions."

Mrs. Wardlaw Browne was of the tall, gaunt, haughty type; thin to scrawniness, enormously rich, and possessed of all the arrogance that riches bring. She studied the faces of the four men contemptuously; then, with a little resigned expression, sat down.

"Just how did you lose your necklace?" The Thinking Machine began abruptly. "Did you drop it? Was it taken from your neck? Are you sure you had it on?"

"I know I had it on," was the reply. "I did not drop it. It was taken from my neck."

"Did you, by any chance, wear a low-neck gown on the evening it was taken?" The little scientist's squinting eyes were

fixed upon her tensely.

"I never wear décolleté," came the frigid response.

With his great head pillowed upon the back of his chair, his thin fingers tip to tip, and his eyes turned upward, The Thinking Machine sat in silence for a minute or more, the while tiny, cobwebby lines appeared in his domelike brow.

"Can you," he inquired finally, "summon a servant without leaving this room?"

"There is a bell, yes." Mrs. Wardlaw Browne was forgetting to be haughty in a certain fascination which grew upon her as she gazed at this little man.

"Will you ring it, please?"

Mrs. Wardlaw Browne arose, touched a button, and sat down again. A moment later a footman entered.

"Tell Mr. Rex Miller," The Thinking Machine directed, "that Mrs. Wardlaw Browne would like to see him immediately in this room."

The footman bowed and withdrew. Followed an interminable wait— interminable, at least, to Detective Mallory, who impatiently clicked his handcuffs together. Mrs. Wardlaw Browne yawned to hide the curiosity that was consuming her.

The door opened, and Rex Miller entered. He stood for a moment staring at the silent party, and finally:

"Did you send for me, Mrs. Browne?"

"I did," said The Thinking Machine. "Sit down, please." Rex sank into a chair mechanically. "Mr. Blanton"— the scientist neither raised his voice nor lowered his eyes— "you will undertake to see that Mr. Miller doesn't leave this room. Mr. Mallory, you will search Mr. Miller's apartments. Somewhere there you will find Mrs. Wardlaw Browne's diamond necklace; also a man's diamond ring."

Rex came to his feet with writhing hands, a thundercloud in his face. Mrs. Wardlaw Browne burst into inarticulate expostulations. Blanton drew a revolver and laid it across his knee. Mallory hustled out. Hatch merely waited. Silence came; a

silence so tense, so strained that Mrs. Wardlaw Browne was tempted to scream. At last there were footsteps, the door from the hall was thrown open, and Mallory, triumphant, appeared.

"I have them," he announced grimly. The necklace, a radiant, glittering thing, was dangling from one finger. The ring lay in his open palm. "And now, Mr. Rex Miller"— he fished out his handcuffs and started toward the young man— "if you'll hold out your—"

"Oh, sit down, Mallory!" commanded The Thinking Machine impatiently.

Loitering in a hallway, where he could keep an eye on the stairs leading from the lower part of the house, Monsieur St. Rocheville saw Miss Fayerwether creep stealthily up, silent-footed, chalk-white of face, and come racing toward him across the heavy velvet carpet. For the reason that she would surely see him, he walked toward her, amazed and a little perturbed at something in her manner.

"What's the matter?" inquired St. Rocheville calmly.

"Oh, it's you!" Miss Fayerwether's hand flew to her heart. She was frightened, gasping. "Nothing!"

"But something must be the matter," he insisted. "You are white as a sheet."

With an apparent effort the girl regained control of herself, and stood staring at him mutely. 'Twas in that moment that Monsieur St. Rocheville saw for the first time some strange, new expression in the big, innocent eyes— they seemed to grow hard, worldly, all-wise even as he looked.

"There are detectives in the house," she said.

"I know it. What about it?"

"They have a warrant, and intend to search every room."

"Well?" St. Rocheville refused to get excited about it.

"Including, I imagine, yours and mine."

"I'm willing. I dare say you are."

For an instant the girl's self-possession seemed to desert her completely. Her eyes closed as if in pain, and she swayed a little.

St. Rocheville thrust out an arm protectingly. When she lifted her face again St. Rocheville read terror therein.

"If— if they search my room," she faltered, "I— I am lost!"

"How? Why? What do you mean?"

"I don't know that I could make any one else understand," she went on swiftly. "The birds, you know— Blitz and Jack and Jill. You saw, and I explained to you, a trick they have of— of thieving; stealing bright things."

She stopped. In his impatience St. Rocheville seized her by the arm and shook her soundly.

"Well?" he demanded.

"Nearly every jewel that has been stolen is hidden now in my room," she confessed. "I knew nothing of it until yesterday, when I came across them. Then, after all the excitement about the thefts, I was afraid to return the things, and I could think of no way to proceed. So, you see, if they search my room it will—
—"

St. Rocheville was possessed of an agile mind; resourceful as it was agile. Suddenly he remembered two questions the girl had asked the day before— questions about Chicago and Denver. His teeth snapped. He thrust out a hand, and, opening the nearest door— he didn't happen to know whose room it was— he dragged her in, and turned on the electric light. Then their eyes met squarely.

"You are the thief, then?" he demanded. "Don't lie to me! You are the thief?"

"The things are in my room." She was sobbing a little. "The birds—"

"You are the thief!" There was a curious note of exultation in his voice. "And you do know something about Chicago and Denver?"

"I know that you are Wilhelm Van Der Wyde," she flashed defiantly. "I recognized you at once. I saw you in old Charles' 'fence' there once when you were not aware of it. I could never be mistaken in your eyes."

Monsieur St. Rocheville laughed blithely; came a faint answering smile, and he gathered her into his arms.

"I've always needed a partner," he said.

"Mr. Miller," The Thinking Machine was saying placidly, "isn't the thief at all." He raised his hand to still a clamor of ejaculation. "Monsieur Rocheville, so called, stole the necklace, at least, and concealed it, with a ring from his own finger, in Mr. Miller's apartment." Again he raised his hand. "Mr. Miller caught Monsieur St. Rocheville cheating at cards, and practically denounced him. Monsieur St. Rocheville took his revenge by undertaking to fasten the jewel thefts upon Mr. Miller. He imagined, shallowly enough, that if the necklace should be found in Mr. Miller's room the police would look no farther. It is barely possible that the police wouldn't have looked farther."

Mrs. Wardlaw Browne's aristocratic mouth had dropped open in sheer astonishment. Detective Mallory looked bewildered, dazed. Rex Miller's face was an animated interrogation mark.

"Then who is the thief?" Mallory found voice to express the burning question.

"I'm sure I don't know," The Thinking Machine confessed frankly. "I think, perhaps, it was Monsieur St. Rocheville, so called; but there's nothing to connect him— Please sit down, Mallory. You annoy me. It would do no good to search his apartment. If he stole anything, it isn't here now; besides—"

The door opened suddenly, and the footman appeared.

"Miss Fayerwether is badly hurt, ma'am," he explained hurriedly. "She seems to have fallen from her window. We found her outside, unconscious."

Mrs. Wardlaw Browne went out hurriedly. Obeying an almost imperceptible nod of The Thinking Machine's head, Detective Mallory followed her. The scientist turned to Detective Blanton.

"Get St. Rocheville," he directed tersely.

Ten minutes later Mallory returned. In one hand he held a

small chamois bag. The contents thereof he spilled upon a table. The Thinking Machine glanced around, saw a glittering heap of jewels, then resumed his steady scrutiny of the ceiling.

"The girl had them?"

"Yes," replied the detective. "She tried to escape from her room by sliding down a rope made of sheets. It broke, and she fell."

"Badly hurt?"

"Only a sprained ankle, and shock."

Blanton flung himself in.

"St. Rocheville's gone," he announced hurriedly. "I imagine he cut for it. Went away in one of the automobiles."

WHEN Miss Fayerwether recovered consciousness, and the sharp agony in her ankle had become a mere dull pain, she found herself in some large room, rank with the odor of strange chemical messes. As a matter of fact, it was The Thinking Machine's laboratory; and the three men present were the little scientist in person, Mallory, and Hatch. Blanton had gone on to police headquarters to send out a general alarm for Monsieur St. Rocheville.

"There was no mystery about it," she heard The Thinking Machine saying. "That is, no mystery that the simplest rules of logic wouldn't instantly dissipate. A man, presumably French, but speaking English almost perfectly, comes into this room and betrays himself as an imposter five minutes afterward by using, without a trace of accent, the one phrase in all our language which no Frenchman, unless he is reared from infancy in an English-speaking country, can pronounce as it should be pronounced. This man used the phrase: 'My father and my father's father;' and he pronounced it as either of us would have pronounced it. The French can master our 'th' only with difficulty, and then only at the beginning of a word; otherwise their 'th' becomes almost like our 'z.'

"From the beginning, therefore, I imagined our so-called

Monsieur St. Rocheville an imposter. Being an imposter, he was a liar. I proved he was a liar when I made him state who his father was. At my suggestion, Mr. Hatch cabled to Paris, demonstrated that there is not, and never has been a Monsieur St. Rocheville connected with the Credit Lyonnaise; and, this much established, St. Rocheville's story collapsed utterly. He had been accused of cheating at cards; and in retaliation he tried to shift the thefts upon Mr. Miller. He had seen Mr. Miller, so he said, steal the necklace. His obvious purpose in this was to bring about a search of Mr. Miller's apartment, where he had carefully planted the necklace, also his own ring. The remainder of the story you all know."

Miss Fayerwether had listened breathlessly, with closed eyes. The Thinking Machine arose and came over to her. For an instant his slender, cool hand rested on her brow; and in that instant she fought the fight. She was caught. St. Rocheville, alias Van Der Wyde, was free. He had tried to help her. She was to have gathered the jewels together, escaped through her window to avoid attracting attention, and joined him in the waiting automobile. He was free. She would allow him to remain free. Love, be it said, makes martyrs of us all.

"I stole the jewels," she said quietly. "Monsieur St. Rocheville knew nothing of the thefts. My birds—"

That was all. The door opened and closed. Monsieur St. Rocheville stood before them with a vicious-looking, snub-nosed, automatic pistol in his hand.

"Put up your hands!" he commanded curtly. "You, Mallory, you! Put them up, I say! Put them up!" Mallory put them up. "And you, too! Put them up!" The Thinking Machine and Hutchinson Hatch obeyed unanimously. "Now, Miss Fayerwether, can you walk?"

"I think so." She struggled to her feet.

"Very well." There was a deadly calm in his manner. "Take Mallory's gun, his keys, his handcuffs, and his police whistle. Careful now! Stand on the far side of him. I may have to kill

him." The girl obeyed deftly. "Are the handcuffs unlocked? Good! Snap one end around his right wrist. Now, Mallory, lower your right hand!"

"I'll be—" the enraged detective began.

"Lower your right hand." The pistol clicked. "Now, Miss Fayerwether, snap the other end of the handcuff around the leg of his chair, above the rungs." It was done, neatly and quickly. "And I think that will hold you for a few minutes, Mallory. Now, Miss Fayerwether, there's an automobile outside. The motor is running. Get in the car. Take your time. Safely in, honk the horn three times."

The girl hobbled out. Monsieur St. Rocheville took advantage of the pause to sneer a little at the three men— Mallory safely shackled to a heavy chair, which would effectually stop immediate pursuit; Hatch with his hands anxiously stretched into the air, The Thinking Machine placidly meeting his gaze, eye to eye.

"I'll get you yet!" Mallory bellowed in impotent rage.

"Oh, perhaps." Outside, the automobile horn sounded thrice. "Until then, *au revoir!*" and Monsieur St. Rocheville vanished as silently as he had come.

"There's loyalty for you," observed The Thinking Machine, as if astonished.

"Love, not loyalty," Hatch declared. "He's crazy about her. Nothing on earth would have brought him back but love."

"Love!" mused the little scientist. "A most interesting phenomena. I shall have to look into it some time."

As I have said, Monsieur St. Rocheville was a young man of resource and daring. Later that night he burglariously entered the room Miss Fayerwether had occupied at Idlewild, and took Blitz and Jack and Jill away with him, cage and all.

30. My First Experience With the Great Logician

IT was once my good fortune to meet in person Professor Augustus S. F. X. Van Dusen, Ph. D., LL. D., F. R. S., M. D., etc. The meeting came about through a singular happening, which was as mystifying as it was dangerous to me— he saved my life in fact; and in process of hauling me back from eternity— the edge of that appalling mist which separates life and death— I had full opportunity of witnessing the workings of that marvelously keen, cold brain which has made him the most distinguished scientist and logician of his day. It was sometime afterward, however, that Professor Van Dusen was identified in my mind with The Thinking Machine.

I had dined at the Hotel Teutonic, taken a cigar from my pocket, lighted it, and started for a stroll across Boston Common. It was after eight o'clock on one of those clear, nippy evenings of winter. I was near the center of the Common on one of the many little by paths which lead toward Beacon Hill when I became conscious of an acute pain in my chest, a sudden fluttering of my heart, and a constriction in my throat. The lights in the distance began to waver and grow dim, and perspiration broke out all over me from an inward, gnawing agony which grew more intense each moment. I felt myself reeling, my cigar dropped from my fingers, and I clutched at a seat to steady myself. There was no one near me. I tried to call, then everything grew dark, and I sank down on the ground. My last recollection was of a figure approaching me; the last words I heard were a petulant, irritable "Dear me!" then I was lost to consciousness.

When I recovered consciousness I lay on a couch in a strange room. My eyes wandered weakly about and lingered with a certain childish interest on half a dozen spots which reflected glitteringly the light of an electric bulb set high up on one side. These bright spots, I came to realize after a moment, were metal parts of various instruments of a laboratory. For a time I lay helpless, listless, with trembling pulse and eardrums thumping, then I heard steps approaching, and some one bent over and

peered into my face.

It was a man, but such a man as I had never seen before. A great shock of straw yellow hair tumbled about a broad, high forehead, a small, wrinkled, querulous face— the face of an aged child— a pair of watery blue eyes squinting aggressively through thick spectacles, and a thin lipped mouth as straight as the mark of a surgeon's knife, save for the drooping corners. My impression then was that it was some sort of hallucination, the distorted vagary of a disordered brain, but gradually my vision cleared and the grip of slender fingers on my pulse made me realize the actuality of the— the apparition.

"How do you feel?" The thin lips had opened just enough to let out the question, the tone was curt and belligerent, and the voice rasped unpleasantly. At the same time the squint eyes were focused on mine with a steady, piercing glare that made me uneasy. I tried to answer, but my tongue refused to move. The gaze continued for an instant, then the man— The Thinking Machine— turned away and prepared a particularly vile smelling concoction, which he poured into me. Then I was lost again.

After a time— it might have been minutes or hours— I felt again the hand on my pulse, and again The Thinking Machine favored me with a glare. An hour later I was sitting up on the couch, with unclouded brain, and a heartbeat which was nearly normal. It was then I learned why Professor Van Dusen, an eminent man of the sciences, had been dubbed The Thinking Machine; I understood first hand how material muddles were so unfailingly dissipated by unadulterated, infallible logic.

Remember that I had gone into that room an inanimate thing, inert, unconscious, mentally and physically dead to all practical intents— beyond the point where I might have babbled any elucidating fact. And remember, too, please, that I didn't know— had not the faintest idea— what had happened to me, beyond the fact that I had fallen unconscious. The Thinking Machine didn't ask questions, yet he supplied all the missing details, together with a host of personal, intimate things of

which he could personally have had no knowledge. In other words, I was an abstruse problem, and he solved me. With head tilted back against the cushion of the chair— and such a head!— with eyes unwaveringly turned upward, and finger tips pressed idly together, he sat there, a strange, grotesque little figure in the midst of his laboratory apparatus. Not for a moment did he display the slightest interest in me, personally; it was all as if I had been written down on a slate, to be wiped off when I was solved.

“Did this ever happen to you before?” he asked abruptly.

“No,” I replied. “What was it?”

“You were poisoned,” he said. “The poison was a deadly one — corrosive sublimate, or bichlorid or mercury. The shock was very severe; but you will be all right in—”

“Poisoned!” I exclaimed, aghast. “Who poisoned me? Why?”

“You poisoned yourself,” he replied testily. “It was your own carelessness. Nine out of ten persons handle poison as if it was candy, and you are like all the rest.”

“But I couldn’t have poisoned myself,” I protested. “Why, I have had no occasion to handle poisons— not for— I don’t know how long.”

“I do know,” he said. “It was nearly a year ago when you handled this; but corrosive sublimate is always dangerous.”

The tone irritated me, the impassive arrogance of the little man inflamed my reeling brain, and I am not sure that I did not shake my finger in his face. “If I was poisoned,” I declared with some heat, “it was not my fault. Somebody gave it to me; somebody tried to—”

“You poisoned yourself,” said The Thinking Machine again impatiently. “You talk like a child.”

“How do you know I poisoned myself? How do you know I ever handled a poison? And how do you know it was a year ago, if I did?”

The Thinking Machine regarded me coldly for an instant, and then those strange eyes of his wandered upward again. “I know

those things,” he said, “just as I know your name, address, and profession from cards I found in your pockets; just as I know you smoke, from half a dozen cigars on you; just as I know that you are wearing those clothes for the first time this winter; just as I know you lost your wife within a few months; that you kept house then; and that your house was infested with insects. I know just as I know everything else— by the rules of inevitable logic.”

My head was whirling. I stared at him in blank astonishment. “But how do you know those things?” I insisted in bewilderment.

“The average person of to-day,” replied the scientist, “knows nothing unless it is written down and thrust under his nose. I happen to be a physician. I saw you fall, and went to you, my first thought being of heart trouble. Your pulse showed it was not that, and it was obviously not apoplexy. Now, there was no visible reason why you should have collapsed like that. There had been no shot; there was no wound; therefore, poison. An examination confirmed this first hypothesis; your symptoms showed that the poison was bichlorid of mercury. I put you in a cab and brought you here. From the fact that you were not dead then I knew that your system had absorbed only a minute quantity of poison— a quantity so small that it demonstrated instantly that there had been no suicidal intent, and indicated, too, that no one else had administered it. If this was true, I knew — I didn’t guess, I knew— that the poisoning was accidental. How accidental?

“My first surmise, naturally, was that the poison had been absorbed through the mouth. I searched your pockets. The only thing I found that you would put into your mouth were the cigars. Were they poisoned? A test showed they were, all of them. With intent to kill? No. Not enough poison was used. Was the poison a part of the gum used to bind the cigar? Possible, of course, but not probable. Then what?” He lowered his eyes and squinted at me suddenly, aggressively. I shook my head, and, as an afterthought, closed my gaping mouth.

"Perhaps you carried corrosive sublimate in your pocket. I didn't find any; but perhaps you once carried it. I tore out the coat pocket in which I found the cigars and subjected it to the test. At sometime there had been corrosive sublimate, in the form of powder or crystals, in the pocket, and in some manner, perhaps because of an imperfection in the package, a minute quantity was loose in your pocket.

"Here was an answer to every question, and more; here was how the cigars were poisoned, and, in combination with the tailor's tag inside your pocket, a short history of your life. Briefly it was like this: Once you had corrosive sublimate in your pocket. For what purpose? First thought— to rid your home of insects. Second thought— if you were boarding, married or unmarried, the task of getting rid of the insects would have been left to the servant; and this would possibly have been the case if you had been living at home. So I assumed for the instant that you were keeping house, and if keeping house, you were married— you bought the poison for use in your own house.

"Now, without an effort, naturally, I had you married, and keeping house. Then what? The tailor's tag, with your name, and the date your clothing was made— one year and three months ago. It is winter clothing. If you had worn it since the poison was loose in your pocket the thing that happened to you to-night would have happened to you before; but it never happened before, therefore I assume that you had the poison early last spring, when insects began to be troublesome, and immediately after that you laid away the suit until this winter. I know you are wearing the suit for the first time this winter, because, again, this thing has not happened before, and because, too, of the faint odor of moth balls. A band of crape on your hat, the picture of a young woman in your watch, and the fact that you are now living at your club, as your bill for last month shows, establish beyond doubt that you are a widower."

"It's perfectly miraculous!" I exclaimed.

"Logic, logic, logic," snapped the irritable little scientist. "You

are a lawyer, you ought to know the correlation of facts; you ought to know that two and two make four, not sometimes but all the time."

31. The Problem of the Opera Box

GRADUALLY the lights dimmed and the great audience became an impalpable, shadowy mass broken here and there by the vagrant glint of a jewel or the gleam of white shoulders. There was a preliminary blare of horns, then the crashing anvil chorus of "*Il Trovatore*" began. Sparks spattered and flashed as the sledges rose and fell in exquisite rhythm while the clangorous music roared through the big theatre.

Eleanor Oliver arose, and moving from the front of the box into the gloom at the rear, leaned her head wearily against the latticed partition. Her mother, beside whom she had been sitting, glanced up inquiringly as did her father and their guest Sylvester Knight.

"What's the matter, my dear?" asked Mrs. Oliver.

"Those sparks and that noise give me a headache," she explained. "Father, sit in front there if you wish. I'll stay here in the dark until I feel better."

Mr. Oliver took the seat near his wife and Knight immediately lost interest in the stage, turning his chair to face Eleanor. She seemed a little pale and mingled eagerness and anxiety in his face showed his concern. They chatted together for a minute or so and under cover of darkness his hand caught hers and held it a fluttering prisoner.

As they talked the drone of their voices interfered with Mrs. Oliver's enjoyment of the music and she glanced back warningly. Neither noticed it for Knight was gazing deeply into the girl's eyes with adoration in his own. She made some remark to him and he protested quickly.

"Please don't," Mrs. Oliver heard him say pleadingly as his

voice was raised. "It won't be long."

"I'm afraid I'll have to," the girl replied.

"You mustn't," Knight commanded earnestly. "If you insist on it I shall have to do something desperate."

Mrs. Oliver turned and looked back at them reprovingly.

"You children chatter too much," she said good naturedly. "You make more noise than the anvils."

She turned again to the stage and Knight was silent for a moment. Finally the girl said something else that the mother didn't catch.

"Certainly," he replied.

He arose quietly and left the box. The swish and fall of the curtain behind him were smothered in the heavy volume of music. The girl sat white and inert. Knight found her in just that position when he returned with a glass of water. He had been out only a minute or so, and the encore to the chorus was just ending.

He offered the glass to Eleanor but she made no move to take it and he touched her lightly on the arm. Still she did not move and he leaned over and looked at her closely. Then he turned quickly to Mrs. Oliver.

"Eleanor has fainted, I think," he whispered uneasily.

"Fainted?" exclaimed Mrs. Oliver as she arose. "Fainted?"

She pushed her chair back and in a moment was beside her daughter chafing her hands. Mr. Oliver turned and glanced at them with languid interest.

"What's the matter now?" he inquired.

"We'll have to go," replied Mrs. Oliver. "Eleanor has fainted."

"Again?" he asked impatiently.

Knight hovered about anxiously, helplessly as the father and mother worked with the girl. Finally in some way he never understood Eleanor was lifted out, still unconscious and white as death, and removed in a waiting carriage to her home. Two physicians were summoned and disappeared into her boudoir while Knight paced back and forth restlessly between the

smoking room and the hall. Mrs. Oliver was with her daughter; Mr. Oliver sat quietly smoking.

"I wouldn't worry," he advised the young man after a few minutes. "She has a trick of fainting like that. You will know more about her after awhile— when she is Mrs. Knight."

From somewhere upstairs came a scream and Knight started nervously. It was a shrill, penetrating cry that tore straight through him. Mr. Oliver took it phlegmatically, even smiled at his nervousness.

"That's my wife fainting," he explained. "She always does it that way. You know," he added confidentially, "my wife and two daughters are so exhausted with this everlasting social game that they go off like that at any minute. I've talked to them about it but they won't listen."

Heedless of the idle, even heartless, comments of the father Knight stopped in the hall and stood at the foot of the stairs looking up. After a minute a man came down; it was Dr. Brander, one of the two physicians who had been called. On his face was an expression of troubled perplexity.

"How is she?" demanded Knight abruptly.

"Where is Mr. Oliver?" asked Dr. Brander.

"In the smoking room," replied the young man. "What's the matter?"

Without answering the physician went on to the father. Mr. Oliver looked up.

"Bring her around all right?" he asked.

"She's dead," replied the physician.

"Dead?" gasped Knight.

Mr. Oliver rose suddenly and gripped the physician fiercely by a shoulder. For an instant he gazed and then his face grew deathly pale. With a distinct effort he recovered himself.

"Her heart?" he asked at last.

"No. She was stabbed."

Dr. Brander looked from one to the other of the two white faces with troubled lines about his eyes.

"Why it can't be," burst out Knight suddenly. "Where is she? I'll go to her."

Dr. Brander laid a detaining hand on his shoulder.

"You can do no good," he said quietly.

For a time Mr. Oliver was dumb and the physician curiously watched the struggle in his face. The hand that clung to his shoulder was trembling horribly. At last the father found voice.

"What happened?" he asked.

"She was stabbed," said Dr. Brander again. "When we examined her we found the knife— a long, keen, short-handled stiletto. It was driven in with great force directly under her left arm and penetrated the heart. She must have been dead when she was lifted from the box at the opera. The stiletto remained in the wound and prevented any flow of blood while its position and the short handle caused it to be overlooked when she was lifted into the carriage. We did not find the knife for several minutes after we arrived. It was covered by her arm."

"Did you tell my wife?" asked Mr. Oliver quickly.

"She was present," the physician went on. "She screamed and fainted. Dr. Seaver is attending her. Her condition is— is not very good. Where is your 'phone? I must notify the police."

Mr. Oliver started to ask something else, paused and dropped back in his chair only to rise instantly and rush up the stairs. Knight into whose face there had come a deadly calm stood stone-like while Dr. Brander used the telephone. At last the physician finished.

"The calling of the police means that Eleanor did not kill herself?" asked the young man.

"It was murder," was the positive reply. "She could not have stabbed herself. The knife went straight in, entering here," and he indicated a spot about four inches below his left arm. "You see," he explained, "it took a very long blade to penetrate the heart."

There was dull despair in Knight's eyes. He dropped down at a table with his head on his arms and sat motionless for a long

time. He looked up once and asked a question.

"Where is the knife?"

"I have it," replied Dr. Brander. "I shall turn it over to the authorities."

"NOW," began The Thinking Machine in his small, irritated voice as Hutchinson Hatch, reporter, stopped talking and leaned back to listen, "all problems are merely sums in addition, when reduced to their primary parts. Therefore this one is simply a matter of putting facts together in order to prove that two and two do not sometimes but always make four."

Professor Augustus S. F. X. Van Dusen, scientist and logician, paused to adjust his head comfortably on the cushion in the big chair, then resumed:

"Your statement of the case, Mr. Hatch, gives me these absolute facts: Eleanor Oliver is dead; she died of a stab wound; a stiletto made this wound; it was in such a position that she could hardly have inflicted it herself; and Sylvester Knight, her fiancé, is under arrest. That's all we know isn't it?"

"You forget that she was stabbed while in a box at the opera," the reporter put in, "in the hearing of three or four thousand persons."

"I forget nothing," snapped the scientist. "It does not appear at all that she was stabbed while in that box. It appears merely that she was ill and might have fainted. She might have been stabbed while in the carriage, or even after she was in her room."

Hatch's eyes opened wide at the bare mention of these possibilities.

"The presumption is of course," The Thinking Machine went on a little less aggressively, "that she was stabbed while in the box, but we can't put that down as an absolute fact to work on until we know it. Remember the stiletto was not found until she was in her room."

This gave the reporter something new to think about and he

was silent as he considered it. He saw that either of the possibilities suggested by the scientist was tenable, but on the other hand— on the other hand, and there his mind refused to work.

“You have told me that Knight was arrested at the suggestion of Mr. Oliver last night shortly after the police learned of the affair,” The Thinking Machine went on, musingly. “Now just what have you or the police learned as to him? How do they connect him with the affair?”

“First the police acted on the general ground of exclusive opportunity,” the reporter explained. “Then Knight was arrested. The stiletto used was not an ordinary one. It had a blade of about seven inches and was very slender, but instead of a guard on it there was only a gold band. The handle is a straight, highly polished piece of wood. Around it, below the gold band where the guard should have been, there were threads as if it had been screwed into something.”

“Yes, yes, I see,” the other interrupted impatiently. “It was intended to be carried hidden in a walking cane, perhaps, and was screwed down with the blade in the stick. Go on.”

“Detective Mallory surmised that when he saw the stiletto,” the reporter continued, “so after Knight was locked up he searched his rooms for the other part— the lower end— of the cane.”

“And he found it, without the stiletto?”

“Yes, that’s the chain against. Knight. First, exclusive opportunity, then the stiletto and the finding of the lower end of the cane in his possession.”

“Exclusive fiddlesticks!” exclaimed the scientist irritably. “I presume Knight denies that he killed Miss Oliver?”

“Naturally.”

“And where is the stiletto that belongs to his cane? Does he attempt to account for it?”

“He doesn’t seem to know where it is— in fact he doesn’t deny that the stiletto might be his. He merely says he doesn’t

know.”

The Thinking Machine was silent for several minutes.

“Looks bad for him,” he remarked at last.

“Thank you,” remarked Hatch dryly. It was one of those rare occasions when the scientist saw a problem exactly as he saw it.

“Miss Oliver and Mr. Knight were to be married— when?”

“Three weeks from next Wednesday.”

“I suppose Detective Mallory has the stiletto and cane?”

“Yes.”

The Thinking Machine arose and found his hat.

“Let’s run over to police headquarters,” he suggested.

They found Detective Mallory snugly ensconced behind a fat cigar with beatific satisfaction on his face.

“Ah, gentlemen,” he remarked graciously— the graciousness of conscious superiority. “We’ve nailed it to our friend Knight all right.”

“How?” inquired The Thinking Machine.

The detective gloated a little— twisted his tongue around the dainty morsel— before he answered.

“I suppose Hatch has told you the grounds of the arrest?” he asked. “Exclusive opportunity and all that? Then you know, too, how I searched Knight’s rooms and found the other part of the stiletto cane. Of course that was enough to convict, but early this evening the last link in the chain against him was supplied when Mrs. Oliver made a statement to me.”

The detective paused in enjoyment of the curiosity he had aroused.

“Well?” asked The Thinking Machine, at last.

“Mrs. Oliver heard— understand me— heard Knight threaten her daughter only a few minutes before she was found dead.”

“Threaten her?” exclaimed Hatch, as he glanced at The Thinking Machine. “By George!”

Detective Mallory tugged at his moustache complacently.

“Mrs. Oliver heard Knight first say something like, ‘Please

don't. It won't be very long.' Her daughter answered something she couldn't catch after which she heard Knight say positively, 'You mustn't. If you do I shall do something desperate' or something like that. Now as she remembers it the tone was threatening— it must have been raised in anger to be heard above the anvils. Thus the case is complete."

The Thinking Machine and Hatch silently considered this new point.

"Remember this was only three or four minutes before she was found stabbed," the detective went on with conviction. "It all connects up straight from exclusive opportunity to the ownership of the stiletto; from that to the threat and there you are."

"No motive of course?" asked The Thinking Machine.

"Well, the question of motive isn't exactly clear but our further investigations will bring it out all right," the detective admitted. "I should imagine the motive to be jealousy. Of course the story of Knight not knowing where his stiletto is has no weight."

Detective Mallory was so charmed with himself that he offered cigars to his visitors— an unusual burst of generosity— and Hatch was so deeply thoughtful that he accepted. The Thinking Machine never smoked.

"May I see the stiletto and cane?" he asked instead.

The detective was delighted to oblige. He watched the scientist with keen satisfaction as that astute gentleman squinted at the slender blade, still stained with blood, and then as he examined the lower part of the cane. Finally the scientist thrust the long blade into the hollow stick and screwed the handle in. It fitted perfectly. Detective Mallory smiled.

"I don't suppose you'll try to put a crimp in me this time?" he asked jovially.

"Very clever, Mr. Mallory, very clever," replied The Thinking Machine, and with Hatch trailing he left headquarters.

"Mallory will swell like a balloon after that," Hatch

commented grimly.

"Well, he might save himself that trouble," replied the scientist crustily. "He has the wrong man."

The reporter glanced quickly into the inscrutable face of his companion.

"Didn't Knight do it?" he asked.

"Certainly not," was the impatient answer.

"Who did?"

"I don't know."

Together they went on to the theatre from which Miss Oliver had been removed the night before. There a few words with the manager gained permission to look at the Oliver box— a box which the Olivers held only on alternate nights during the opera season. It was on the first balcony level, to the left as they entered the house.

The first three rows of seats in the balcony ran around to and stopped at the box, one of four on that level and the furthest from the stage. The Thinking Machine potted around aimlessly for ten minutes while Hatch looked on. He entered the box two or three times, examined the curtains, the partitions, the floor and the chairs after which he led the way into the lobby.

There he excused himself to Hatch and stopped in the manager's office. He remained only a few minutes, afterwards climbing into a cab in which he and Hatch were driven back to police headquarters.

After some wire pulling and a good deal of red tape The Thinking Machine and his companion were permitted to see Knight. They found him standing at the barred cell door, staring out with weary eyes and pallid face.

The Thinking Machine was introduced to the prisoner by Hatch who had previously tried vainly to induce the young man to talk.

"I have nothing to say," Knight declared belligerently. "See my attorney."

"I would like to ask three or four questions to which you can have no possible objection," said The Thinking Machine. "If you do object of course don't answer."

"Well?" demanded the prisoner.

"Have you ever travelled in Europe?"

"I was there for nearly a year. I only returned to this country three months ago."

"Have you ever been interested in any other woman? Or has any other woman ever been interested in you?"

The prisoner stared at his questioner coldly.

"No," he responded, emphatically.

"Your answer to that question may mean your freedom within a few hours," said The Thinking Machine quite calmly.

"Tell me the truth."

"That is the truth— on my honour."

The answer came frankly, and there came a quick gleam of hope in the prisoner's face.

"Just where in Italy did you buy that stiletto cane?" was the next question.

"In Rome."

"Rather expensive?"

"Five hundred lira— that is about one hundred dollars."

"I suppose they are very common in Italy?"

"Yes, rather."

Knight pressed eagerly against the bars of his cell and gazed deeply but uncomprehendingly into the quiet squinting blue eyes.

"There has never been any sort of a quarrel— serious or otherwise between you and Miss Oliver?"

"Never," was the quick response.

"Now, only one more question," said The Thinking Machine. "I shall not ask it to hurt you." There was a little pause and Hatch waited expectantly. "Does it happen that you know whether or not Miss Oliver ever had any other love affair?"

"Certainly not," exclaimed the young man, hotly. "She was

just a girl— only twenty, out of Vassar just a few months ago and— and—”

“You needn’t say any more,” interrupted The Thinking Machine. “It isn’t necessary. Make your plans to leave here tonight, not later than midnight. It is now four o’clock. Tomorrow the newspapers will exonerate you.”

The prisoner seemed almost overcome by his emotions. He started to speak, but only extended an open hand through the bars. The Thinking Machine laid his slender fingers in it with a slight look of annoyance, said “Good day” mechanically and he and Hatch went out.

The reporter was in a sort of a trance, not an unusual condition in him when in the company of his scientific friend. They climbed into the cab again and were driven away. Hatch was thinking too deeply to note the destination when the scientist gave it to the cabby.

“Do you actually anticipate that you will be able to get Knight out of this thing so easily?” he asked incredulously.

“Certainly,” was the response. “The problem is solved except for one or two minor points. Now I am proving it.”

“But— but—”

“I will make it all clear to you in due time,” interrupted the other.

They were both silent until the cab stopped. Hatch glanced out and recognized the Oliver home. He followed The Thinking Machine up the steps and into the reception hall. There the scientist handed a card to the servant.

“Tell Mr. Oliver, please, that I will only take a moment,” he explained.

The servant bowed and left them. A short wait and Mr. Oliver entered.

“I am sorry to disturb you at such a time, Mr. Oliver,” said the scientist, “but if you can give me just a little information I think perhaps we may get a full light on this unfortunate affair.”

Mr. Oliver bowed.

"First, let me ask you to confirm what I may say is my knowledge that your daughter, Eleanor, knew this man. I will ask, too, that you do not mention his name now."

He scribbled hastily on a piece of paper and handed it to Mr. Oliver. An expression of deep surprise came into the latter's face and he shook his head.

"I can answer that question positively," he said. "She does not know him. She had never been abroad and he has never been in this country until now."

The Thinking Machine arose with something nearly akin to agitation in his face, and his slender fingers worked nervously.

"What?" he demanded abruptly. "What?" Then, after a pause: "I beg your pardon, sir. It startled me a little. But are you sure?"

"Perfectly sure," replied Mr. Oliver firmly. "They could not have met in any way."

For a long time The Thinking Machine stood squinting aggressively at his host with bewilderment plainly apparent in his manner. Hatch looked on with absorbed interest. Something had gone wrong; a cog had slipped; the wheels of logic had been thrown out of gear.

"I have made a mistake, Mr. Oliver," said The Thinking Machine at last. "I am sorry to have disturbed you."

Mr. Oliver bowed courteously and they were ushered out.

"What is it?" asked Hatch anxiously as they once more took their seats in the cab.

The Thinking Machine shook his head in frank annoyance.

"What happened?" Hatch insisted.

"I've made a mistake," was the petulant response. "I'm going home and start all over again. It may be that I shall send for you later."

Hatch accepted that as a dismissal and went his way wonderingly. That evening The Thinking Machine called him to the 'phone.

"Mr. Hatch?"

"Yes."

"Did Miss Oliver have any sisters?"

"Yes, one. Her name is Florence. There's something about her in the afternoon papers in connection with the murder story."

"How old is she?"

"I don't know— twenty-two or three."

"Ah!" came a long, aspirated sigh of relief over the wire.

"Run by and bring Detective Mallory up to my place."

"All right. But what was the matter?"

"I was a fool, that's all. Good bye."

Detective Mallory was still delighted with himself when Hatch entered his office.

"What particular line is your friend Van Dusen working?" he asked a little curiously.

The reporter shrugged his shoulders.

"He asked me to come by and bring you up," he replied. "He has evidently reached some conclusion."

"If it's anything that doesn't count Knight in it's all wind," he said loftily. For once in his life he was confident that he could deliver a blow which would obliterate any theory but his own. In this mood, therefore, he went with Hatch. They found The Thinking Machine pacing back and forth across his small laboratory with his slender hands clasped behind his back. Hatch noted that the perplexed wrinkles had gone.

"In adding up a column of figures," began the scientist abruptly as he sat down, "the oversight of even so trivial a unit as one will make a glaring error in the result. You, Mr. Mallory, have overlooked a figure one, therefore your conclusion is wrong. In my first consideration of this affair I also overlooked a figure one and my conclusion toppled over just at the moment when it seemed to be corroborated. So I had to start over; I found the one."

"But this thing against Knight is conclusive," said the detective explosively.

"Except for the figure one," added the scientist.

Detective Mallory snorted politely.

"Now here is the logic of the thing," resumed The Thinking Machine. "It will show how I overlooked the figure one— that is a vital fact— and how I found it."

He dropped back into the reflective attitude which was so familiar to his hearers, squint eyes turned upward and with his fingers pressed tip to tip. For several minutes he was silent while Detective Mallory vented his impatience by chewing his moustache.

"In the beginning," began The Thinking Machine at last, "we have a girl, pretty, young and wealthy in a box at the opera with her parents and her fiancé. It would seem, at first glance, to be as safe a place as her home would be, yet she is murdered mysteriously. A stiletto is thrust into her heart. We will assume that her death occurred in the box; that the knife thrust came while she was in a dead faint. This temporary unconsciousness would account for the fact that she did not scream, as the heart would have been pierced by a sudden thrust before consciousness of pain was awakened.

"Now the three persons who were with her. There seemed no reason to suspect either the father or mother, so we come to Sylvester Knight, her intended husband. There is always to be found a motive, either real or imaginary, for a man to kill his sweetheart. In this case Knight had the opportunity, but not the exclusive opportunity. Therefore, an unlimited field of speculation was opened up."

Detective Mallory raised his hand impressively and started to say something, then thought better of it.

"After Mr. Knight's arrest," The Thinking Machine continued, "your investigation, Mr. Mallory, drew a net about him. That's what you wanted to say, I believe. There was the stiletto, the other end of the cane and the alleged threats. I admit all these things. On this statement of the case it looked black for Mr. Knight."

"That's what," remarked the detective.

"Now a stiletto naturally suggests Italy. The blade with which Miss Oliver was killed bore an Italian manufacturer's mark. I presume you noticed it?"

"Oh, that!" exclaimed the detective.

"Means nothing conclusively," added The Thinking Machine. "I agree with you. Still it was a suggestion. Then I saw the thing that did mean something. This was the fact that the handle of the stiletto was not of the same wood as the part of the cane you found in Mr. Knight's room. This difference is so slight that you would hardly notice it even now, but it was there and showed a possible clue leading away from Mr. Knight."

Detective Mallory could not readily place his tongue on words to fittingly express his disgust, so he remained silent.

"When I considered what manner of man Mr. Knight is and the singular nature of the crime," resumed the scientist, "I had no hesitancy in assuring Mr. Hatch that you had the wrong man. After we first saw you we examined the opera box. It was on the left of the theatre and separated from the next box by a latticed partition. It was against this partition that Miss Oliver was leaning.

"Remember, I saw the box after I examined the stiletto and while I was seeking a method by which another person might have stabbed her without entering the box. I found it. By using a stiletto without a guard it would have been perfectly possible for a person in the next box to have killed her by thrusting the blade through the lattice partition. That is exactly what happened."

Detective Mallory arose with a mouth full of words. They tumbled out in incoherent surprise and protest, then he sat down again. The Thinking Machine was still staring upward.

"I then took steps to learn who was in the adjoining box at the time of her death," he continued quietly. "The manager of the theatre told me it was occupied by Mr. and Mrs. Franklin Dupree, and their guest an Italian nobleman. Italian nobleman! Italian stiletto! You see the connection?"

"Then we saw Mr. Knight. He assured me, and I believed

him, that he had never had any other love affair, therefore no woman would have had a motive in killing Miss Oliver because of him. He was positive, too, that Miss Oliver had never had any other love affair, yet I saw the possibility of some connecting link between her and the nobleman. It was perfectly possible, indeed probable, that he would not know of it. At the moment I was convinced that there had been such an affair.

“Mr. Knight also told me that he bought his stiletto cane in Rome; and he paid a price that would seem to guarantee that it would be a perfect one, with the same wood in the handle and lower part, and that he and Miss Oliver had never had any sort of a quarrel.”

There was a little pause and The Thinking Machine shifted his position slightly.

“Here I had a motive— jealousy of one man who was thrown over for another; the method of death, through the lattice; a clue to the murderer in the stiletto, and the name of the man. It seemed conclusive but I had overlooked a figure one. I saw that when Mr. Oliver assured me that Miss Eleanor Oliver did not know the nobleman whose name I wrote for him; that she could not have known him. The entire structure tumbled. I was nonplussed and a little rude, I fear, in my surprise. Then I had to reconsider the matter from the beginning. The most important of all the connecting links was missing, yet the logic was right. It is always right.

“There are times when imagination has to bridge gaps caused by the absence of demonstrable facts. I considered the matter carefully, then saw where I had dropped the figure one. I ’phoned to Mr. Hatch to know if Miss Oliver had a sister. She had. The newspapers to which Mr. Hatch referred me told me the rest of it. It was Eleanor Oliver’s sister who had the affair with the nobleman. That cleared it. There is the name of the murderer.”

He laid down a card on which was scribbled this name and address: “*Count Leo Tortino, Hotel Teutonic.*” Hatch and the

detective read it simultaneously, then looked at The Thinking Machine inquiringly.

"But I don't see it yet," expostulated the detective. "This man Knight—"

"Briefly it is this," declared the other impatiently. "The newspapers carried a story of Florence Oliver's love affair with Count Tortino at the time she was travelling in Europe with her mother. According to what I read she jilted him and returned to this country where her engagement to another man was rumoured. That was several months ago. Now it doesn't follow that because the Count knew Florence Oliver that he knew or even knew of Eleanor Oliver.

"Suppose he came here maddened by disappointment and seeking revenge, suppose further he reached the theatre, as he did, while the anvil chorus was on, the party started into the wrong box and the usher mentioned casually that the Olivers were in there. We presume he knew Mrs. Oliver by sight, and saw her. He might reasonably have surmised, perhaps he was told, that the other woman was Miss Oliver— and Miss Oliver meant to him the woman who had jilted him. The lattice work offered a way, the din of the music covered the act— and that's all. It doesn't really appear— it isn't necessary to know— how he carried the stiletto about him, or why."

The detective was gnawing his moustache. He was silent for several minutes trying to see the tragedy in this new light.

"But the threats Knight made?" he inquired finally.

"Has he explained them?"

"Oh, he said something about the girl being ill and wanting to go home, and he urged her not to. He told her, he says, that she mustn't go, because he would have to do something desperate. Silly explanation I call it."

"But I dare say it's perfectly correct," commented The Thinking Machine. "Men of your profession, Mr. Mallory, never believe the simple things. If you would take the word of an accused man at face value occasionally you would have less

trouble." There was a pause, then: "I promised Mr. Knight that he would be free by midnight. It is now ten. Suppose you run down to the Teutonic and see Count Tortino. He will hardly deny anything."

Detective Mallory and Hatch found the Count in his room. He was lying face down across a bed with a bullet hole in his temple. A note of explanation confessed the singular error which had led to the murder of Eleanor Oliver.

It was three minutes of midnight when Sylvester Knight walked out of his cell a heartbroken man, but free.

32: The Leak

"REALLY GREAT criminals are never found out, for the simple reason that the greatest crimes— their crimes— are never discovered," remarked Professor Augustus S. F. X. Van Dusen positively. "There is genius in the perpetration of crime, Mr. Grayson, just as there must be in its detection, unless it is the shallow work of a bungler. In this latter case there have been instances where even the police have uncovered the truth. But the expert criminal, the man of genius— the professional, I may say— regards as perfect only that crime which does not and cannot be made to appear a crime at all; therefore one that can never under any circumstances involve him, or anyone else."

The financier, J. Morgan Grayson, regarded this wizened little man of science— The Thinking Machine— thoughtfully, through the smoke of his cigar.

"It is a strange psychological fact that the casual criminal glories in his crime beforehand, and from one to ten minutes afterward," The Thinking Machine continued. "For instance, the man who kills for revenge wants the world to know it is his work; but at the end of ten minutes comes fear, and then paradoxically enough, he will seek to hide his crime and protect himself. With fear comes panic, with panic irresponsibility, and then he makes

the mistake— hews a pathway which the trained mind follows from motive to a prison cell."

"These are the men who are found out. But there are men of genius, Mr. Grayson, professionally engaged in crime. We never hear of them because they are never caught, and we never even suspect them because they make no mistake. Imagine the great brains of history turned to crime. Well, there are today brains as great as any of those of history; there is murder and theft and robbery under our noses that we never dream of. If I, for instance, should become an active criminal—" He paused.

Grayson, with a queer expression on his face, puffed steadily at his cigar.

"I could kill you now, here in this room," The Thinking Machine went on calmly, "and no one would ever know, never even suspect. Why? Because I would make no mistake."

It was not a boast as he said it; it was merely a statement of fact. Grayson appeared to be a little startled. Where there had been only impatient interest in his manner, there was now fascination.

"How would you kill me, for instance?" he inquired curiously.

"With any one of a dozen poisons, with virulent germs, or even with a knife or revolver," replied the scientist placidly. "You see, I know how to use poisons; I know how to inoculate with germs; I know how to produce a suicidal appearance perfectly with either a revolver or knife. And I never make mistakes, Mr. Grayson. In the sciences we must be exact— not approximately so, but absolutely so. We must know. It isn't like carpentry. A carpenter may make a trivial mistake in a joint, and it will not weaken his house; but if the scientist makes one mistake, the whole structure tumbles down. We must know. Knowledge is progress. We gain knowledge through observation and logic— inevitable logic. And logic tells us that two and two make four— not sometimes but all the time."

Grayson flicked the ashes off his cigar thoughtfully, and little wrinkles appeared about his eyes as he stared into the drawn,

inscrutable face of the scientist. The enormous, straw-yellow head was cushioned against the chair, the squinting, watery blue eyes turned upward, and the slender white fingers at rest, tip to tip. The financier drew a long breath. "I have been informed that you were a remarkable man," he said at last slowly. "I believe it. Quinton Frazer, the banker who gave me the letter of introduction to you, told me how you once solved a remarkable mystery in which—"

"Yes, yes," interrupted the scientist shortly, "the Ralston Bank burglary— I remember."

"So I came to you to enlist your aid in something which is more inexplicable than that," Grayson went on hesitatingly. "I know that no fee I might offer would influence you; yet it is a case which—"

"State it," interrupted The Thinking Machine again.

"It isn't a crime— that is, a crime that can be reached by law," Grayson hurried on, "but it has cost me millions, and—"

For one instant The Thinking Machine lowered his squint eyes to those of his visitor, then raised them again. "Millions!" he repeated. "How many?"

"Six, eight, perhaps ten," was the reply. "Briefly, there is a leak in my office. My plans become known to others almost by the time I have perfected them. My plans are large; I have millions at stake; and the greatest secrecy is absolutely essential. For years I have been able to preserve this secrecy; but half a dozen times in the last eight weeks my plans have become known, and I have been caught. Unless you know the Street, you can't imagine what a tremendous disadvantage it is to have someone know your next move to the minutest detail and, knowing it, defeat you at every turn."

"No, I don't know your world of finance, Mr. Grayson," remarked The Thinking Machine. "Give me an instance."

"Well, take this last case," said the financier earnestly. "Briefly, without technicalities, I had planned to unload the securities of the P., Q. & X. Railway, protecting myself through

brokers, and force the outstanding stock down to a price where other brokers, acting for me, could buy far below the actual value. In this way I intended to get complete control of the stock. But my plans became known, and when I began to unload everything was snapped up by the opposition, with the result that instead of gaining control of the road I lost heavily. This same thing has happened, with variations, half a dozen times."

"I presume that is strictly honest?" inquired the scientist mildly.

"Honest?" repeated Grayson. "Certainly— of course."

"I shall not pretend to understand all that," said The Thinking Machine curtly. "It doesn't seem to matter, anyway. You want to know where the leak is. Is that right?"

"Precisely."

"Well, who is in your confidence?"

"No one, except my stenographer."

"Who is he, please?"

"It's a woman— Miss Evelyn Winthrop. She has been in my employ for six years in the same capacity— more than five years before this leak appeared. I trust her absolutely."

"No man knows your business?"

"No," replied the financier grimly. "I learned years ago that no one could keep my secrets as well as I do— there are too many temptations. Therefore, I never mention my plans to anyone— never— to anyone!"

"Except your stenographer," corrected the scientist.

"I work for days, weeks, sometimes months, perfecting plans, and it's all in my head, not on paper— not a scratch of it," explained Grayson. "When I say that she is in my confidence, I mean that she knows my plans only half an hour or less before the machinery is put into motion. For instance, I planned this P., Q. & X. deal. My brokers didn't know of it; Miss Winthrop never heard of it until twenty minutes before the Stock Exchange opened for business. Then I dictated to her, as I always do, some short letters of instructions to my agents. That is all she knew of

it."

"You outlined the plan in those letters?"

"No; they merely told my brokers what to do."

"But a shrewd person, knowing the contents of all those letters, could have learned what you intended to do?"

"Yes; but no one person knew the contents of all the letters. No one broker knew what was in the other letters. Miss Winthrop and I were the only two human beings who knew all that was in them."

The Thinking Machine sat silent for so long that Grayson began to fidget in his chair. "Who was in the room besides you and Miss Winthrop before the letters were sent?" he asked at last.

"No one," responded Grayson emphatically. "For an hour before I dictated those letters, until at least an hour afterward, after my plans had gone to smash, no one entered that room. Only she and I work there."

"But when she finished the letters, she went out?" insisted The Thinking Machine.

"No," declared the financier, "she didn't even leave her desk."

"Or perhaps sent something out— carbon copies of the letters?"

"No."

"Or called up a friend on the telephone?" continued The Thinking Machine quietly.

"Nor that," retorted Grayson.

"Or signaled to someone through the window?"

"No," said the financier again. "She finished the letters, then remained quietly at her desk, reading a book. She hardly moved for two hours."

The Thinking Machine lowered his eyes and glared straight into those of the financier. "Someone listened at the window?" he went on after a moment.

"No. It is sixteen stories up, fronting the street, and there is

no fire escape."

"Or the door?"

"If you knew the arrangement of my offices, you would see how utterly impossible that would be, because—"

"Nothing is impossible, Mr. Grayson," snapped the scientist abruptly. "It might be improbable, but not impossible. Don't say that—it annoys me exceedingly." He was silent for a moment. Grayson stared at him blankly. "Did either you or she answer a call on the 'phone?"

"No one called; we called no one."

"Any apertures—holes or cracks—in your flooring or walls or ceilings?" demanded the scientist.

"Private detectives whom I had employed looked for such an opening, and there was none," replied Grayson.

Again The Thinking Machine was silent for a long time. Grayson lighted a fresh cigar and settled back in his chair patiently. Faint cobwebby lines began to appear on the dome-like brow of the scientist, and slowly the squint eyes were narrowing.

"The letters you wrote were intercepted?" he suggested at last.

"No," exclaimed Grayson flatly. "Those letters were sent direct to the brokers by a dozen different methods, and every one of them had been delivered by five minutes of ten o'clock, when 'Change begins business. The last one left me at ten minutes of ten."

"Dear me! Dear me!" The Thinking Machine rose and paced the length of the room.

"You don't give me credit for the extraordinary precautions I have taken, particularly in this last P., Q. & X. deal," Grayson continued. "I left positively nothing undone to insure absolute secrecy. And Miss Winthrop, I know, is innocent of any connection with the affair. The private detectives suspected her at first, as you do, and she was watched in and out of my office for weeks. When she was not under my eyes, she was under the

eyes of men to whom I had promised an extravagant sum of money if they found the leak. She didn't know it then, and doesn't know it now. I am heartily ashamed of it all, because the investigation proved her absolute loyalty to me. On this last day she was directly under my eyes for two hours; and she didn't make one movement that I didn't note, because the thing meant millions to me. That proved beyond all question that it was no fault of hers. What could I do?"

The Thinking Machine didn't say. He paused at a window, and for minute after minute stood motionless there, with eyes narrowed to mere slits.

"I was on the point of discharging Miss Winthrop," the financier went on, "but her innocence was so thoroughly proved to me by this last affair that it would have been unjust, and so —"

Suddenly the scientist turned upon his visitor. "Do you talk in your sleep?" he demanded.

"No," was the prompt reply. "I had thought of that too. It is beyond all ordinary things, Professor. Yet there is a leak that is costing me millions."

"It comes down to this, Mr. Grayson," The Thinking Machine informed him crabbedly. "If only you and Miss Winthrop knew those plans, and no one else, and they did leak, and were not deduced from other things, then either you or she permitted them to leak, intentionally or unintentionally. That is as pure logic as two and two make four; there is no need to argue it."

"Well, of course, I didn't," said Grayson.

"Then Miss Winthrop did," declared The Thinking Machine finally, positively; "unless we credit the opposition, as you call it, with telepathic gifts hitherto unheard of. By the way, you have referred to the other side only as the opposition. Do the same men, the same clique, appear against you all the time, or is it only one man?"

"It's a clique," explained the financier, "with millions back of it, headed by Ralph Matthews, a young man to whom I give

credit for being the prime factor against me." His lips were set sternly.

"Why?" demanded the scientist.

"Because every time he sees me he grins," was the reply. Grayson seemed suddenly discomfited.

The Thinking Machine went to a desk, addressed an envelope, folded a sheet of paper, placed it inside, then sealed it. At length he turned back to his visitor. "Is Miss Winthrop at your office now?"

"Yes."

"Let us go there, then."

A few minutes later the eminent financier ushered the eminent scientist into his private office on the Street. The only person there was a young woman— a woman of twenty-six or seven, perhaps— who turned, saw Grayson, and resumed reading. The financier motioned to a seat. Instead of sitting, however, The Thinking Machine went straight to Miss Winthrop and extended a sealed envelop to her.

"Mr. Ralph Matthews asked me to hand you this," he said.

The young woman glanced up into his face frankly, yet with a certain timidity, took the envelope, and turned it curiously in her hand.

"Mr. Ralph Matthews," she repeated, as if the name was a strange one. "I don't think I know him."

The Thinking Machine stood staring at her aggressively, as she opened the envelope and drew out the sheet of paper. There was no expression save surprise— bewilderment, rather— to be read on her face.

"Why, it's a blank sheet!" she remarked, puzzled.

The scientist turned suddenly toward Grayson, who had witnessed the incident with frank astonishment in his eyes.

"Your telephone a moment, please," he requested.

"Certainly; here," replied Grayson.

"This will do," remarked the scientist.

He leaned forward over the desk where Miss Winthrop sat,

still gazing at him in a sort of bewilderment, picked up the receiver, and held it to his ear. A few moments later he was talking to Hutchinson Hatch, reporter.

"I merely wanted to ask you to meet me at my apartment in an hour," said the scientist. "It is very important."

That was all. He hung up the receiver, paused for a moment to admire an exquisitely wrought silver box— a "vanity" box— on Miss Winthrop's desk, beside the telephone, then took a seat beside Grayson and began to discourse almost pleasantly upon the prevailing meteorological conditions. Grayson merely stared; Miss Winthrop continued her reading.

PROFESSOR Augustus S. F. X. Van Dusen, distinguished scientist, and Hutchinson Hatch, newspaper reporter, were poking round among the chimney pots and other obstructions on the roof of a skyscraper. Far below them the slumber-enshrouded city was spread out like a panorama, streets dotted brilliantly with lights, and roofs hazily visible through mists of night. Above, the infinite blackness hung like a veil, with starpoints breaking through here and there.

"Here are the wires," Hatch said at last, and he stooped.

The Thinking Machine knelt on the roof beside him, and for several minutes they remained thus in the darkness, with only the glow of a flashlight to indicate their presence. Finally, The Thinking Machine rose.

"That's the wire you want, Mr. Hatch," he said. "I'll leave the rest of it to you."

"Are you sure?" asked the reporter.

"I am always sure," was the tart response.

Hatch opened a small handsatchel and removed several queerly wrought tools. These he spread on the roof beside him; then, kneeling again, began his work. For half an hour he labored in the gloom, with only the flashlight to aid him, and then he rose.

"It's all right," he said.

The Thinking Machine examined the work that had been done, grunted his satisfaction, and together they went to the skylight, leaving a thin, insulated wire behind them, stringing along to mark their path. They passed down through the roof and into the darkness of the hall of the upper story. Here the light was extinguished. From far below came the faint echo of a man's footsteps as the watchman passed through the silent, deserted building.

"Be careful!" warned The Thinking Machine.

They went along the hall to a room in the rear, and still the wire trailed behind. At the last door they stopped. The Thinking Machine fumbled with some keys, then opened the way. Here an electric light was on. The room was bare of furniture, the only sign of recent occupancy being a telephone instrument on the wall.

Here The Thinking Machine stopped and stared at the spool of wire which he had permitted to wind off as he walked, and his thin face expressed doubt.

"It wouldn't be safe," he said at last, "to leave the wire exposed as we have left it. True, this floor is not occupied; but someone might pass this way and disturb it. You take the spool, go back to the roof, winding the wire as you go, then swing the spool down to me over the side of the building, so that I can bring it in through the window. That will be best. I will catch it here, and thus there will be nothing to indicate any connection." Hatch went out quietly and closed the door.

TWICE THE following day The Thinking Machine spoke to the financier over the telephone. Grayson was in his private office, Miss Winthrop at her desk, when the first call came.

"Be careful in answering my questions," warned The Thinking Machine when Grayson answered. "Do you know how long Miss Winthrop has owned the little silver box which is now on her desk, near the telephone?"

Grayson glanced round involuntarily to where the girl sat idly

turning over the leaves of her book. "Yes," he answered, "for seven months. I gave it to her last Christmas."

"Ah!" exclaimed the scientist. "That simplifies matters. Where did you buy it?"

Grayson mentioned the name of a well-known jeweler.

Considerably later in the day The Thinking Machine called Grayson to the telephone again.

"What make of typewriter does she use?" came the querulous voice over the wire.

Grayson named it.

While Grayson sat with deeply perplexed lines in his face, the diminutive scientist called upon Hutchinson Hatch at his office.

"Do you use a typewriter?" demanded The Thinking Machine.

"Yes."

"What kind?"

"Oh, four or five kinds— we have half a dozen different makes in the office."

They passed along through the city room, at that moment practically deserted, until finally the watery blue eyes settled upon a typewriter with the name emblazoned on the front.

"That's it!" exclaimed The Thinking Machine. "Write something on it," he directed Hatch.

Hatch drew up a chair and rolled off several lines of the immortal practice sentence, beginning, "Now is the time for all good men—"

The Thinking Machine sat beside him, squinting across the room in deep abstraction, and listening intently. His head was turned away from the reporter, but his ear was within a few inches of the machine. For half a minute he sat there listening, then shook his head.

"Strike your vowels," he commanded; "first slowly, then rapidly."

Again Hatch obeyed, while the scientist listened. And again he shook his head. Then in turn every make of machine in the

office was tested the same way. At the end The Thinking Machine rose and went his way. There was an expression nearly approaching complete bewilderment on his face.

FOR HOUR after hour that night The Thinking Machine half lay in a huge chair in his laboratory, with eyes turned uncompromisingly upward, and an expression of complete concentration on his face. There was no change either in his position or his gaze as minute succeeded minute; the brow was deeply wrinkled now, and the thin line of the lips was drawn taut. The tiny clock in the reception room struck ten, eleven, twelve, and finally one. At just half-past one The Thinking Machine rose suddenly.

"Positively I am getting stupid!" he grumbled half aloud. "Of course! Of course! Why couldn't I have thought of that in the first place?..."

So it came about that Grayson did not go to his office on the following morning at the usual time. Instead, he called again upon The Thinking Machine in eager, expectant response to a note which had reached him at his home just before he started to his office.

"Nothing yet," said The Thinking Machine as the financier entered. "But here is something you must do today. At one o'clock," the scientist went on, "you must issue orders for a gigantic deal of some sort; and you must issue them precisely as you have issued them in the past; there must be no variation. Dictate the letters as you have always done to Miss Winthrop —*but don't send them!* When they come to you, keep them until you see me."

"You mean that the deal must be purely imaginative?" inquired the financier.

"Precisely," was the reply. "But make your instructions circumstantial; give them enough detail to make them absolutely logical and convincing."

Grayson asked a dozen questions, answers to which were

curtly denied, then went to his office. The Thinking Machine again called Hatch on the telephone.

"I've got it," he announced briefly. "I want the best telegraph operator you know. Bring him along and meet me in the room on the top floor where the telephone is at precisely fifteen minutes before one o'clock today."

"Telegraph operator?" Hatch repeated.

"That's what I said— telegraph operator!" replied the scientist irritably. "Goodbye."

Hatch smiled whimsically at the other end as he heard the receiver banged on the hook— smiled because he knew the eccentric ways of this singular man, whose mind so accurately illuminated every problem to which it was directed. Then he went out to the telegraph room and borrowed the principal operator. They were in the little room on the top floor at precisely fifteen minutes of one.

The operator glanced about in astonishment. The room was still unfurnished, save for the telephone box on the wall.

"What do I do?" he asked The Thinking Machine.

"I'll tell you when the time comes," responded the scientist, as he glanced at his watch.

At three minutes of one o'clock he handed a sheet of blank paper to the operator, and gave him final instructions.

There was ludicrous mystification on the operator's face; but he obeyed orders, grinning cheerfully at Hatch as he tilted his cigar up to keep the smoke out of his eyes. The Thinking Machine stood impatiently looking on, watch in hand. Hatch didn't know what was happening, but he was interested.

At last the operator heard something. His face became suddenly alert. He continued to listen for a moment, and then came a smile of recognition.

LESS THAN ten minutes after Miss Winthrop had handed over the typewritten letters of instruction to Grayson for signature, and while he still sat turning them over in his hands,

the door opened and The Thinking Machine entered. He tossed a folded sheet of paper on the desk before Grayson, and went straight to Miss Winthrop.

"So you did know Mr. Ralph Matthews after all?" he inquired.

The girl rose from her desk, and a flash of some subtle emotion passed over her face. "What do you mean, sir?" she demanded.

"You might as well remove the silver box," The Thinking Machine went on mercilessly. "There is no further need of the connection."

Miss Winthrop glanced down at the telephone extension on her desk, and her hand darted toward it. The silver "vanity" box was directly under the receiver, supporting it, so that all weight was removed from the hook, and the line was open. She snatched the box and the receiver dropped back on the hook. The Thinking Machine turned to Grayson.

"It was Miss Winthrop," he said.

"Miss Winthrop!" exclaimed Grayson, "I can't believe it!"

"Read the paper I gave you, Mr. Grayson," directed The Thinking Machine coldly. "Perhaps that will enlighten her."

The financier opened the sheet, which had remained folded in his hand, and glanced at what was written there. Slowly he read it aloud: "Peabody— Sell ten thousand shares L. & W. at 97. McCracken Co.— Sell ten thousand shares L. & W. at 97." He read on down the list, bewildered. Then gradually, as he realized the import of what he read, there came a hardening of the lines about his mouth.

"I understand, Miss Winthrop," he said at last. "This is the substance of the orders I dictated, and in some way you made them known to persons for whom they were not intended. I don't know how you did it, of course; but I understand that you did do it, so—" He stepped to the door and opened it with grave courtesy. "You may go now."

Miss Winthrop made no plea— merely bowed and went out.

Grayson stood staring after her for a moment, then turned to The Thinking Machine and motioned him to a chair. "What happened?" he asked briskly.

"Miss Winthrop is a tremendously clever woman," replied The Thinking Machine. "She neglected to tell you, however, that besides being a stenographer and typist she is also a telegraph operator. She is so expert in each of her lines that she combined the two, if I may say it that way. In other words, in writing on the typewriter, she was clever enough to be able to *give the click of the machine the patterns in the Morse telegraphic code*— so that another telegraph operator at the other end of the 'phone could hear her machine and translate the clicks into words."

Grayson sat staring at him incredulously. "I still don't understand," he said finally.

The Thinking Machine rose and went to Miss Winthrop's desk. "Here is an extension telephone with the receiver on the hook. It happens that the little silver box which you gave Miss Winthrop is just tall enough to lift this receiver clear of the hook, and the minute the receiver is off the hook the line is open. When you were at your desk and she was here, you couldn't see this telephone; therefore it was a simple matter for her to lift the receiver, and place the silver box underneath, thus holding the line open permanently. That being true, the sound of the typewriter— *the striking of the keys*— would go over the open wire to whoever was listening at the other end. Then, if the striking of the keys typed out your letters and, by their frequency and pauses, simultaneously tapped out telegraphic code, an outside operator could read your letters at the same moment they were being written. That is all. It required extreme concentration on Miss Winthrop's part to type accurately in Morse rhythms."

"Oh, I see!" exclaimed Grayson.

"When I knew that the leak in your office was not in the usual way," continued The Thinking Machine, "I looked for the unusual. There is nothing very mysterious about it now— it was merely clever."

"Clever!" repeated Grayson, and his jaws snapped. "It is more than that. Why, it's criminal! She should be prosecuted."

"I shouldn't advise that, Mr. Grayson," returned the scientist coldly. "If it is honest— merely business— to juggle stocks as you told me you did, this is no more dishonest. And besides, remember that Miss Winthrop is backed by the people who have made millions out of you, and— well, I wouldn't prosecute. It is betrayal of trust, certainly; but—" He rose as if that were all, and started toward the door. "I would advise you, however, to discharge the person who operates your switchboard."

"Was she in the scheme, too?" demanded Grayson. He rushed out of the private office into the main office. At the door he met a clerk coming in.

"Where is Miss Mitchell?" demanded the financier hotly.

"I was just coming to tell you that she went out with Miss Winthrop just now without giving any explanation," replied the clerk.

"Good day, Mr. Grayson," said The Thinking Machine.

The financier nodded his thanks, then stalked back into his room.

IN THE course of time The Thinking Machine received a check for ten thousand dollars, signed, "J. Morgan Grayson." He glared at it for a little while, then indorsed it in a crabbed hand, *Pay to the Trustees' Home for Crippled Children*, and sent Martha, his housekeeper, out to mail it.

33: Problem of Convict No. 97

MARTHA opened the door. Her distinguished master, Professor Augustus S. F. X. Van Dusen— The Thinking Machine— lay senseless on the floor. His upturned face, always drawn and pale, was deathly white now, the thin straight lips were colorless, the eyelids drooping, and the profuse yellow hair was tumbled back from the enormous brow in disorder. His arms were outstretched on either side helplessly, and the slender white hands were still and inert. The fading light from the windows over the laboratory table beat down upon the pitifully small figure, and so for the moment Martha stood with distended eyes gazing in terror and apprehension. She was not of the screaming kind, but a great lump rose in her old throat. Then, with fear tearing at her heart, she swooped the slender, child-like figure up in her strong arms and laid it on a couch.

"Glory be!" she exclaimed, and there was devotion in the tone— devotion to this eminent man of science whom she had served so long. "What could have happened to the poor, poor man?"

For another moment she stood looking upon the pallid face, then the necessity of action impressed itself upon her. The heart was still beating,—she convinced herself of that,— and he was breathing. Perhaps he had only fainted. She grasped at the idea hopefully, and turned, seeking water. There was a faucet over a sink at the end of the long table, and innumerable graduated glasses; but even in her excited condition Martha knew better than to use one of them. All sorts of chemicals had been in them — poisons too. With another quick glance at the little scientist she rushed out of the room, as she had entered, bent on getting water.

When she appeared again at the open door with pitcher and drinking glass she paused a second time in amazement. The distinguished scientist was sitting cross legged on the couch, thoughtfully caressing the back of his head.

“Martha, did anyone call?” he inquired.

“Lor’, sir! what did happen to you?” she burst out amazedly.

“Oh, a little accident,” he explained irritably. “Did anyone call?”

“No, sir. How do you feel now, sir?”

“Don’t disturb yourself about me, my good woman; I’m all right,” The Thinking Machine assured her, and put his feet to the floor. “You are sure no one was here?”

“Yes, sir. Lor’! you was that white when I picked you up from the floor there—”

“Was I lying on my back or my face?”

“Flat of your back, sir, all sprawled out. I thought you was dead, sir.”

Again The Thinking Machine thoughtfully caressed the back of his head, and Martha rattled on verbosely, indicating just where and how he had been lying when she opened the door.

“Are you sure that you didn’t hear any sound?” again queried the scientist.

“Nothing, sir.”

“Any sudden jar?”

"Nothing, sir, nothing. I was just laying the tea things, sir, and opened the door to tell you it was ready."

She poured a glass of water from the pitcher, and The Thinking Machine moistened his lips, to which the color was slowly returning.

"Martha," he directed, "go see if the front door is closed, please."

Martha went out. "Yes, sir," she reported on her return.

"Locked?"

"Yes, sir."

The Thinking Machine arose and straightened up, almost himself again. Then he went over to the laboratory table and peered squintingly into a mirror which hung there, after which he wandered all over his apartments, examining windows, trying doors, and stopping occasionally to stare curiously about at objects which had been familiar for years. He turned; Martha was just behind him, looking on wonderingly.

"Lost something, sir?" she asked solicitously.

"You are sure you didn't hear any sound of any sort?" he asked in turn.

"Not a thing, sir."

Then The Thinking Machine went to the telephone. In a minute or so he was in conversation with Hutchinson Hatch, newspaper reporter.

"Heard of any jail delivery at Chisholm prison?" he inquired.

"No," replied the reporter. "Why?"

"There has been an escape," said the scientist positively.

"Who was it?" demanded the reporter eagerly. "How did it happen?"

"The prisoner's name is Philip Gilfoil. I don't know how he got out, but he is out."

"Philip Gilfoil?" Hatch repeated. "He's the forger who—"

"Yes, the forger," said The Thinking Machine abruptly. "He's out. You might go over and investigate, then come by and see me."

Hatch spoke to his city editor and rushed out. Half an hour later he was at Chisholm prison, a vast spreading structure of granite in the suburbs, and in conversation with the warden, an old acquaintance.

"Who was it that escaped?" Hatch began briskly.

"Escaped?" repeated the warden with a momentary start, and then he laughed. "Nobody."

"You have been keeping Philip Gilfoil here, haven't you?"

"I am keeping Philip Gilfoil here," was the grim response. "He is No. 97, and is now in Cell 9."

"How long since you have seen him?" the reporter insisted.

"Ten minutes," was the ready response.

The reporter was staring at him steadily; but the warden's eyes met his frankly. There have been instances where denials of this sort have been made offhand with the idea of preventing the public from knowing the truth as long as possible. Hatch knew of several.

"May I see Gilfoil?" he inquired coldly.

"Sure," replied the warden cheerfully. "Come on and I'll show you."

He escorted the newspaper man along the corridor to Cell 9. "Ninety-seven, are you there?" he called.

"Where'd you expect I'd be?" grumbled some one inside.

"Come to the door for a minute."

There was a movement inside the cell, and the figure of a man approached the door out of the gloom. It had been several months since Hatch had seen Philip Gilfoil; but there was not the slightest question in his mind about the identity of this man. It was Gilfoil— the same sharp, hooked nose, the same thin lipped mouth, everything the same save now that the prison pallor was upon him. There was frank surprise in the reporter's face.

"Do you know me, Gilfoil?" he inquired.

"I'll never forget you," replied the prisoner. There was anything but a kindly expression in the voice. "You're the fellow who helped to send me here— you and the old professor chap."

Hatch led the way back to the warden's office. "Look here, warden!" he remarked pointedly, accusingly. "I want to know the real facts. Has that man been out of his cell since he has been here?"

"No, except for exercise," was the reply. "All the prisoners are allowed a certain time each day for that."

"I mean has he never been out of the prison?"

"Not on your life!" declared the warden. "He's in for eight years, and he doesn't get out till that's up."

"I have reason to believe— the best reason in the world to believe— that he has been out," insisted the reporter.

"You are talking through your hat, Hatch," said the warden, and he laughed with the utmost good nature. "What's the matter, anyway?"

Hatch didn't choose to tell him. He went instead to a telephone and called up The Thinking Machine.

"You are mistaken about Gilfoil having escaped," he told the scientist. "He is still in Chisholm prison."

"Did you see him?" came the irritable demand.

"Saw him and talked to him," replied the reporter. "He was in Cell 9 not five minutes ago."

There was a long silence. Hatch could imagine what it meant—The Thinking Machine was turning this over and over in his mind.

"You are mistaken, Mr. Hatch," came the surprising statement at last in the same irritable, querulous voice. "Gilfoil is not in his cell. I know he is not. There is no need to argue about it. Good by."

IT SO HAPPENED that Professor Augustus S. F. X. Van Dusen was well acquainted with the warden of Chisholm prison. Thus it was that when he called at the prison half an hour or so after Hatch had gone he was received with more courtesy and attention than would have been the case if he had been a casual visitor. The warden shook hands with him and there was a

pleasant reminiscent grin on his face.

"I want to find out something about this man Gilfoil," the scientist began abruptly.

"You too?" remarked the warden. "Hutchinson Hatch was here a little while ago inquiring about him."

"Yes, I sent him," said the scientist. "He tells me that Gilfoil is still here?"

"He is still here," said the warden emphatically. "He's been here for nearly a year, and will remain here for another seven years. Hatch seemed to have an impression that he had escaped. Do you happen to know where he got that idea?"

The Thinking Machine squinted into his face for an instant inscrutably, then glanced up at the clock. It was eighteen minutes past eight o'clock.

"Are you sure that Gilfoil is in his cell?" he demanded curtly.

"I know he is— in Cell 9." The warden tilted his cigar to an angle which was only a little less than aggressive, and glared at his visitor curiously. This constant questioning as to Convict 97, and the implied doubt behind it, was anything but soothing. The Thinking Machine dropped back into a chair, and the watery blue eyes were turned upward. The warden knew the attitude.

"How long have you had Gilfoil?" queried The Thinking Machine after a moment.

"A little more than ten months."

"Well behaved prisoner?"

"Well, yes, now he is. When he first came he was rather an unpleasant customer, and was given to profanity, but lately he has realized the uselessness of it all, and now, I may say, he is a model of decency. That's the usual course with prisoners; they are bad at first, and then in nine cases out of ten they settle down and behave themselves."

"Naturally," mused the scientist. "Just when did you first notice this change for the better in his conduct?"

"Oh, a month or six weeks ago," was the reply.

"Was it a gradual change or a sudden change?"

"I couldn't say, really," responded the wondering warden. "I suppose it might be called a sudden change. I noticed one day that he didn't swear at me as I passed his cell, and that was unusual."

The Thinking Machine straightened up in his chair suddenly and squinted belligerently at the official for an instant. Then he sank back again, and his eyes wandered upward. "Do you happen to remember that first date he didn't swear at you?"

The warden laughed. "It didn't make any particular impression on my mind. It was a month or six weeks ago."

"Has he sworn at you since?" the scientist went on.

"No, I don't think anyone has heard him swear since. He's been remarkably well behaved."

"Any callers?"

"Well, not for a long time. A physician came here to see him twice. There was something the matter with his throat, I think."

"How did it happen that the prison physician didn't attend him?" demanded The Thinking Machine curiously.

"He asked that an outside physician be called," was the response. "He had twelve or fifteen dollars here in the office, and I paid the physician out of that."

Some new line of thought had evidently been awakened in the scientist's mind; for there came a subtle change in the drawn face, and for a long time he was silent.

"Do you happen to remember," he asked slowly at last, "if the physician was called in before or after he stopped swearing?"

"After, I think," the warden replied wearily. "What the deuce is all this about, anyway?" he demanded flatly after a moment.

"Throat trouble, you said. How did it affect him?"

"Made him a little hoarse, that's all. The doctor told me it wasn't anything particularly— probably the dampness in the cell or something."

"And did you know the doctor who was called— know him personally?" demanded The Thinking Machine, and there was a

strange, new gleam in the narrow eyes.

"Yes, quite well. I've known him for years. I let him in and let him out."

The crabbed little scientist seemed almost disappointed. He dropped back again into the depths of the chair.

"Do you want to see Gilfoil?" asked the warden.

"Not yet," was the reply; "but I should like you to walk down the corridor very, very softly and flash your light in Cell 9 and see if Convict 97 is there?"

The warden came to his feet suddenly. There was something in the tone which startled him; but the momentary shock was followed instantly by a little nervous laugh. No man knew better than he that Convict 97 was still there, yet to please this whimsical visitor he lighted his dark lantern and went out. He was gone only a couple of minutes, and when he returned there was a queer expression on his face— almost an awed expression.

"Well?" queried the scientist. "Was he asleep?"

"No," replied the warden, "he wasn't. He was down on his knees beside his cot, praying."

The Thinking Machine arose and paced back and forth across the office two or three times. At last he turned to the warden. "Really, I hate to put you to so much trouble," he said; "but believe me it is in the interests of justice. I should like personally to visit Cell 9 say in an hour from now after Convict 97 is asleep. Meanwhile, don't let me disturb you. Go on about your affairs; I'll wait."

And then and there The Thinking Machine gave the warden a lesson in perfect repose. He glanced at the clock,— the hands indicated eight-forty,— then sat down again, and for one hour he sat there without the slightest movement to indicate even a casual interest in anybody or anything. The warden, busy with some accounts, glanced around curiously at the diminutive figure half a dozen times; once or twice he imagined his visitor had fallen asleep, but the blue eyes behind the thick spectacles,

narrow as they were, belied this idea. It was precisely twenty-one minutes of ten o'clock when The Thinking Machine arose.

"Now, please," he requested.

Without a word of protest the warden relighted the dark lantern, opened the doors leading into the corridor of the prison, and they went on to Cell 9. They paused at the door. There was utter silence in the huge prison, broken only by the regular, rhythmic breathing of Convict 97. At a motion from The Thinking Machine the warden softly unlocked the cell door, and they entered.

"Silence, please," whispered the scientist.

He took the lantern from the warden's unresisting hand, and going softly to the cot turned the light full into the face of the sleeping man. For a second or so he gazed steadily at the features upturned thus to him, then the brilliant light seemed to disturb the sleeper, for his eyelids twitched, and finally opened with a start.

"Do you know me, Gilfoil?" demanded The Thinking Machine suddenly, and he leaned forward so that the cutting rays of light should illumine his own features.

"Yes," the prisoner replied shortly.

"What's my name?" insisted the scientist.

"Van Dusen," was the prompt reply. "I know you, all right." Convict 97 raised himself on an elbow and met the eyes of the other two men without a quiver.

"What size shoe do you wear?" demanded the scientist.

"None of your business!" growled the convict.

The Thinking Machine turned the lantern to the floor and found the shoes the prisoner had laid aside on retiring. He picked them up and examined them carefully, after which he replaced them, nodded to the warden, and they went out. The prisoner lay for a long time, resting on his elbow, seeking to pierce the gloom of the cell and corridor beyond with wide awake eyes, then, sighing, lay down again.

"Let me see Gilfoil's pedigree, and I shall not annoy you

further," The Thinking Machine requested, once they were in the warden's office again. The record book was forthcoming. The scientist copied, accurately and at length, everything written therein concerning Philip Gilfoil. "And last," he requested, "the name, please, of the physician who called to see Convict 97?"

"Dr. Heindell," replied the Warden,— "Dr. Delmore L. Heindell."

The Thinking Machine replaced his notebook in his pocket, planted his hat more firmly on the great shock of yellow hair, and slowly began to draw on his gloves.

"What is all this thing about Gilfoil, anyhow?" demanded the warden desperately. "Be good enough to inform me what the deuce you and Hatch have been driving at?"

"You are, I believe, an able, careful, conscientious man," said The Thinking Machine, "and I don't know that under the circumstances you can be blamed for what has happened; but the man you have in Cell 9 is not Philip Gilfoil. I don't know who your Convict 97 is; but Philip Gilfoil hasn't been in Chisholm prison for weeks. Good night."

And the crabbed little scientist went on his way.

FOR THE third time Hutchinson Hatch rapped upon the little door. The echo reverberated through the house; but there came no answering sound. The modest cottage in a quiet street of a fashionable suburb seemed wholly deserted, yet as he stepped back to the edge of the veranda he could see a faint light trickling through closely drawn shutters on the second floor.

Surely there must be some one there, the reporter reasoned, or that light would not be burning. And if some one was there, why wouldn't they answer? As he looked the trickling light remained still, and then he went to the door and tried it. It was unlocked. He merely ascertained that the door yielded readily under his hand, then he rapped for the fourth time. No answer yet.

He was just turning away from the door, when suddenly it

opened before him, a single arm shot out from the gloom of the hall, and before he could retreat had closed on the collar of his coat. He was hauled into the house despite an instinctive resistance, then the door banged behind him. He could see nothing; the darkness was intense. But still that powerful hand gripped his collar.

"I'll fix your clock, young fellow, right now!" said a man's voice.

Then, even as he struggled, he was conscious of a heavy blow on the point of the chin, strange lights dancing fantastically before his eyes; he felt himself sinking, sinking, and then he knew no more.

When he recovered consciousness he lay stretched full length upon a couch in a strange room. His head seemed bursting, and the rosy light of dawn through the window caused a tense pain in his eyes. For half a minute he lay still, until he had remembered those singular events which had preceded this, and then he started up. He was leaning on one elbow surveying the room, when he became conscious of the rustling of skirts. He turned; a woman was advancing toward him— a woman of apparently thirty years, in whose sweet face lay some heavy, desperate grief.

Involuntarily Hatch struggled to his feet— perhaps it was a spirit of defense, perhaps a natural gallantry. She paused and stood looking at him.

"What happened?" he demanded flatly. "What am I doing here?"

The woman's eyes grew suddenly moist, and her lips trembled. "I'm glad it was no worse," she said hopelessly.

"Who are you?" Hatch asked curiously.

"Please don't ask," she pleaded. "Please don't! If you are able to go, please go now while you may."

The reporter wasn't at all certain that he wanted to go. He was himself again now, confident, alert, with new strength rushing through his veins, and a naturally inquisitive mind fully

aroused. If it was only a poke in the jaw he got, it didn't matter much. He had had those before, and besides here was something which demanded an explanation.

"Who was the man who struck me last night?" he asked.

"Please go!" the woman pleaded. "Believe me, you must. I can't explain anything— it's all horrible and unreal and hideous!" Tears were streaming down the wan cheeks now, and the hands closed and unclosed spasmodically.

Hatch sat down. "I am not going yet," he said. "Tell me about it."

"There is nothing I can tell— nothing!" the woman sobbed.

She buried her face in her hands and wept softly. Then Hatch saw a great bruised spot across her cheek and neck— it might have been the mark of a lash. Whatever particular kind of trouble he was in, he told himself, he was not alone, for she too was a victim.

"You must tell me about it," he insisted.

"I can't, I can't!" she wailed.

And then a cringing, awful fear came into her tear stained face, as she lifted her head to listen. There was the sound of footsteps outside the door.

"He'll kill you, he'll kill you!" whispered the woman.

Hatch set his lips grimly, motioned her to silence, and stepped toward the door. A heavy chair stood there. He weighed it judicially in his hands, and glanced toward the woman reassuringly. She had dropped down on the couch and had buried her face in a pillow; her slender form was shaking with sobs. Hatch raised the chair above his head and closed his hands on it fiercely.

There was a slight rattle as some one turned the knob of the door. Then it opened and a man entered. Hatch stared at the profile with amazed eyes.

"By George!" he exclaimed.

Then he brought the chair down with all the strength of two well muscled arms. The man sank to the floor without a sound;

the woman straightened up, screamed once, and fell forward in a dead faint.

IT WAS about ten o'clock that morning when The Thinking Machine and Hutchinson Hatch, together with a powerful cabman, dragged a man into the warden's office at Chisholm prison.

"Here's your man, Philip Gilfoil," said The Thinking Machine tersely.

"Gilfoil!" the warden almost shouted. "Did he escape?"

And a moment later two guards came into the warden's office with Convict 97 between them. There were two Philip Gilfoils, if one might trust the evidence of a sense of sight; the first with dissipated, brutally lined face, and the other with the prison pallor upon him and with deep grief written indelibly in his eyes.

"They are brothers, gentlemen— twin brothers," explained The Thinking Machine. He turned to the man in prison garb, the man from Cell 9. "This is the Rev. Dr. Phineas Gilfoil, pastor of a fashionable little church in a suburb, and," he turned upon the man whom they had brought there in the cab, "this is Philip Gilfoil, forger— this is Convict 97."

The warden and the prison guards stood stupefied, gazing from one to the other of the two men. The facial lines were identical; physically they had been cast in the same mold.

"The only real difference between them, except a radical mental difference, is the size of their feet," The Thinking Machine went on. "Philip Gilfoil, the forger, the real Convict 97, who has been out of this prison for five weeks and four days, wears a number eight and a half shoe, according to your own records Mr. Warden; the Rev. Phineas Gilfoil, who has been in his brothers place, Cell 9, for five weeks and four days, wears a number seven shoe. See here!"

He stooped suddenly, lifted one of Dr. Gilfoil's feet and slipped one shoe off without even untying it. It showed no

impression of the foot at all in the upper part, it was so large. Dr. Gilfoil dropped back weakly into a chair without a word and buried his face in his hands; Philip Gilfoil, the forger, his head still awhirl with the fumes of liquor, took one step toward his brother, then sat down and glared from one to the other defiantly.

"But how— what— when did they change places?" demanded the warden stammeringly. The whole thing was a nightmare to him.

"Precisely five weeks and four days ago," replied The Thinking Machine. "Your records show that. On your own books, in your own handwriting, is a complete solution of the problem, although you didn't know it," he added magnanimously. "Everything is there. Let me see the book a moment."

The squint eyes ran rapidly down a page, and stopped at a written entry opposite the pedigree record.

" 'Sept. 3.— Miss P. Gilfoil, sister, permitted half-hour's conversation with 97 in afternoon. Brought permission from chairman of Prison Commission.' "

"That's the record of the escape," continued The Thinking Machine. "Philip Gilfoil has no sister, therefore the person who called was the Rev. Dr. Phineas Gilfoil, an only brother, and he wore woman's clothing. He went to that cell willingly and for the specific purpose of changing places with his brother,—the motive doesn't appear,— and was to remain in the cell for a time agreed upon. The necessary changes of clothing were made, instructions which were to enable the minister to impersonate his brother were given,— and they were elaborate,—then Philip Gilfoil, Convict 97, walked out as a woman. I dare say he invited a close scrutiny; it was perfectly safe because of his remarkable resemblance to the man he had left behind."

Amazement in the warden's eyes was giving way to anger at the trick of which he had been the victim. He turned to the guards who had stood by silently.

"Take this man back!" he directed, and indicated Philip

Gilfoil. "Put him where he belongs!" Then he turned toward the white faced minister. "I shall deliver you over to the police."

Philip Gilfoil was led away; then the warden reached for the telephone receiver.

"Now, just a moment, please," requested The Thinking Machine, and he sat down. "You have your prisoner now, safely enough, and here you are about to turn over to the police a man whose every act of life has been a good one. Remember that for a moment, please."

"But why should he change places with my prisoner?" blazed the warden. "That makes him liable too. The statutes are specific on—"

"The Rev. Dr. Gilfoil has done one of the most amazing, not to say heroic, things that I ever heard of," interrupted the scientist. "Now, wait a minute. He, a man of position, of reputation, of unquestioned morals, a good man, deliberately incarcerates himself for the sake of a criminal brother who, in this man's eyes, must be free for a short time at any rate. The reason of this, the necessity, while urgent, still doesn't appear. Dr. Gilfoil trusted his brother, criminal though he was, to return to his cell in four weeks and finish his sentence. The exchange of prisoners then was to be made in the same manner. That the criminal brother did not return, as he agreed, but that Dr. Gilfoil was loyal to him even then and lived up to the lie, can only reflect credit upon Dr. Gilfoil for a self sacrifice which is almost beyond us prosaic people of this day."

"I did it because—" Dr. Gilfoil began hoarsely, his voice quivering with emotion. It was the first time he had spoken.

"It doesn't matter why you did it," interrupted The Thinking Machine. "You did it for love of a brother, and he betrayed you — betrayed you to the point of his taking possession of your house while maudlin from drink, to the point of striking your wife like the coward he is, and of making a temporary prisoner of Mr. Hatch here, who had gone to your home to investigate. It is due to Mr. Hatch's personal courage that your wife is freed

from him,— she was practically a prisoner,— and that he is now in his cell again.”

Dr. Gilfoil’s face went pallid for an instant, and he staggered to his feet, with lips tightly pressed together, fighting back an emotion which nearly overwhelmed him. After a moment came a strange softening of his features, and he stood staring out the window into the prison yard with upraised eyes.

“That’s all of it,” said the scientist, after a moment. “I don’t think, Mr. Warden, that justice would demand the imprisonment of this man. I believe it would be far better to let the matter remain just between ourselves. It will not happen again, and—”

“But it was a crime,” interrupted the warden.

“Technically, yes,” admitted The Thinking Machine; “but we can overlook even a crime, if it does no harm, and if it is inspired by the motive which prompted this one. Think of it for a moment in that light.”

There was a long silence in the little office. The Thinking Machine sat with upturned eyes and fingers pressed tip to tip; Dr. Gilfoil’s eyes roved from the drawn, inscrutable face of the scientist to the warden; Hatch’s brow was furrowed with wrinkles of perplexity.

“How did you find out about this escape first?” asked the reporter curiously.

“I knew Philip Gilfoil had escaped, because I saw him,” replied The Thinking Machine tersely. “He came to my place, evidently to kill me. I was in my laboratory. He came up behind me to strike me down. I glanced into a mirror above my work table, saw him, and tried to avoid the blow. It caught me in the back of the head, and I fell unconscious. Martha made some noise outside which must have frightened Gilfoil, for he fled. The front door locked behind him— it’s a spring lock. But I had recognized the escaped prisoner perfectly,— I never forget faces,— and I knew he had the motive to kill me because I had been instrumental in sending him here.

“I told you merely that Gilfoil had escaped and sent you here

to inquire. Afterward I came myself, because I knew Philip Gilfoil was not in that cell. I found out many additional facts, among them a sudden change for the better in the prisoner's behavior, which confirmed my knowledge that it was Philip Gilfoil who had attacked me. I sought to surprise Dr. Gilfoil here into a betrayal of identity by a visit to his cell at night. But his loyalty to his brother and his perfect self possession enabled him to play the rôle. He recognized me as he recognized you, Mr. Hatch, because we can imagine that Philip Gilfoil had been careful in his plans and had instructed him to look out for us.

"Everything else came from the record book. This gave me Philip Gilfoil's pedigree, mentioned Phineas Gilfoil, without stating his vocation, and gave a clue to his place of residence. You followed up that end, Mr. Hatch, while I called on Dr. Heindell who had treated the prisoner for a bad throat. He informed me that there was nothing at all the matter with the prisoner's throat, so a plain problem in addition brought me a definite knowledge of what had happened. In conclusion, I may say that Dr. Gilfoil planned only a four weeks' stay here. I know that because you told me he had gone on a four weeks' vacation."

The minister's eyes again settled on the face of the warden. That official had been turning the matter over in his mind, evidently at length, as he listened. Finally he spoke.

"You had better go back to the cell, Dr. Gilfoil," he said respectfully, "and change clothing with your brother. You couldn't wear that prison suit in the street safely."

34: Problem Of Dressing Room A

IT was absolutely impossible. Twenty-five chess masters from the world at large, forgathered in Boston for the annual championships, unanimously declared it impossible, and unanimity on any given point is an unusual mental condition for

chess masters. Not one would concede for an instant that it was within the range of human achievement. Some grew red in the face as they argued it, others smiled loftily and were silent; still others dismissed the matter in a word as wholly absurd.

A casual remark by the distinguished scientist and logician, Professor Augustus S. F. X. Van Dusen, provoked the discussion. He had in the past aroused bitter disputes by some chance remark; in fact, had been once a sort of controversial center of the sciences. It had been due to his modest announcement of a startling and unorthodox hypothesis that he had been invited to vacate the chair of philosophy in a great university, later that university had felt honored when he accepted its degree of LL. D.

For a score of years educational and scientific institutions of the world had amused themselves by crowding degrees upon him. He had initials that stood for things he couldn't pronounce; degrees from England, Russia, Germany, Italy, Sweden, and Spain. These were expressed recognition of the fact that his was the foremost brain in the sciences. The imprint of his crabbed personality lay heavily on half a dozen of its branches. Finally there came a time when argument was respectfully silent in the face of one of his conclusions.

The remark which had arrayed the chess masters of the world into so formidable and unanimous a dissent was made by Professor Van Dusen in the presence of three other men of standing. One of these, Dr. Charles Elbert, happened to be a chess enthusiast.

"Chess is a shameless perversion of the functions of the brain," was Professor Van Dusen's declaration in his perpetually irritated voice. "It is a sheer waste of effort, greater because it is possibly the most difficult of all fixed abstract problems. Of course logic will solve it. Logic will solve any problem; not most of them, but any problem. A thorough understanding of its rules would enable anyone to defeat your greatest chess players. It would be inevitable, just as inevitable as that two and two make

four; not sometimes, but always. I don't know chess, because I never do useless things, but I could take a few hours of competent instruction and defeat a man who has devoted his life to it. His mind is cramped; bound down to the logic of chess. Mine is not; mine employs logic in its widest scope."

Dr. Elbert shook his head vigorously. "It is impossible." he asserted.

"Nothing is impossible!" snapped the scientist. "The human mind can do anything. It is all we have to lift us above the brute creation. For Heaven's sake, leave us that!"

The aggressive tone, the uncompromising egotism, brought a flush to Dr. Elbert's face. Professor Van Dusen affected many persons that way, particularly those fellow-savants who, themselves men of distinction, had ideas of their own. "Do you know the purposes of chess? Its countless combinations?" asked Dr. Elbert.

"No," was the crabbed reply; "I know nothing whatever of the game beyond the general purpose, which, I understand, is to move certain pieces in certain directions to stop an opponent from moving his king. Is that correct?"

"Yes," said Dr. Elbert slowly; "but I never heard it stated just that way before."

"Then, if that is correct, I maintain that the true logician can defeat the chess expert by the mechanical rules of logic. I'll take a few hours some time, acquaint myself with the moves of the pieces, and defeat you to convince you." Professor Van Dusen glared savagely into the eyes of Dr. Elbert.

"Not me!" said Dr. Elbert. "You say anyone; you for instance might defeat the greatest chess player. Would you be willing to meet the greatest chess player after you 'acquaint' yourself with the game?"

"Certainly," said the scientist. "I have frequently found it necessary to make a fool of myself to convince people. I'll do it again."

This, then, was the acrimonious beginning of the discussion

which aroused chess masters and brought open dissent from eminent men who had not dared for years to dispute any assertion by the distinguished Professor Van Dusen. It was arranged that at the conclusion of the championships Professor Van Dusen should meet the winner. This happened to be Tschaikowsky the Russian who had been chess champion for half a dozen years.

After this expected result of the tournament, Hillsbury, a noted American master, spent a morning with Professor Van Dusen in the latter's modest apartments on Beacon Hill. He left there with a sadly puzzled face. That afternoon Professor Van Dusen met the Russian champion. The newspapers had said a great deal about the affair, and hundreds were present to witness the game.

There was a little murmur of astonishment when Professor Van Dusen appeared. He was slight to the point of childishness, and his thin shoulders seemed to droop beneath the weight of his enormous head. He wore a number eight hat. His brow rose straight and dome-like, and a heavy shock of long yellow hair gave him almost a grotesque appearance. The eyes were narrow slits of blue, squinting eternally through thick glasses; the face was small, clean shaven, and white with the pallor of the student. His lips made a perfectly straight line. His hands were remarkable for their whiteness, their flexibility, and for the length of the slender fingers. Physical development had never entered into the schedule of his fifty years of life.

The Russian smiled as he sat down at the chess table. He felt that he was humoring a crank. The other masters were grouped near by, curiously expectant. Professor Van Dusen began the game, opening with a queen's gambit. At his fifth move, made without the slightest hesitation, the smile left the Russian's face. At the tenth the master's grew tensely eager. The Russian champion was playing for honor now.

Professor Van Dusen's fourteenth move was king's castle to queen's four. "Check," he announced.

After a long study of the board the Russian protected his king with a knight. Professor Van Dusen noted the play, then leaned back in his chair with finger tips pressed together. His eyes left the board and dreamily studied the ceiling. For at least fifteen minutes there was no sound, then:

“Mate in fifteen moves!” he said quietly.

There was a quick gasp of astonishment. It took the practised eyes of the masters several minutes to verify the announcement. But the Russian champion saw and leaned back in his chair, a little white and dazed. He was not astonished; he was helplessly floundering in a maze of incomprehensible things. Suddenly he arose and grasped the slender hand of his conqueror.

“You have never played chess before?” he asked.

“Never.”

“*Mon Dieu!* You are not a man; you are a brain— a machine — a thinking machine.”

“It’s a child’s game,” said the scientist abruptly. There was no note of exultation in his voice; it was still the irritable, impersonal tone which was habitual.

This, then, was Professor Augustus S. F. X. Van Dusen, Ph. D., LL. D., F. R. S., M. D., etc., etc., etc. This is how he came to be known to the world at large as The Thinking Machine. The Russian’s phrase had been applied to the scientist as a title by a newspaper reporter, Hutchinson Hatch. It had stuck.

THAT strange, seemingly inexplicable chain of circumstances which had to do with the mysterious disappearance of a famous actress, Irene Wallack, from her dressing room in a Springfield theater in the course of a performance, while the echo of tumultuous appreciation still rang in her ears, was perhaps the first problem which was not purely scientific that The Thinking Machine was ever asked to solve. The scientist’s aid was enlisted in this case by Hutchinson Hatch, reporter.

“But I am a scientist, a logician,” The Thinking Machine had

protested. "I know nothing whatever of crime."

"No one knows that a crime has been committed," the reporter hastened to say.

"There is something far beyond the ordinary in this affair. A woman has disappeared, evaporated into thin air in the hearing, almost in sight, of her friends. The police can make nothing of it. It is a problem for a greater mind than theirs."

Professor Van Dusen waved the newspaper man to a seat and himself sank back into a great cushioned chair in which his diminutive figure seemed even more child-like than it really was.

"Tell me the story," he said petulantly, "All of it."

The enormous yellow head rested against the chair back, the blue eyes squinted steadily upward, the slender fingers were pressed tip to tip. The Thinking Machine was in a receptive mood. Hatch was triumphant; he had had only a vague hope that he could interest this man in an affair which was as bizarre as it was incomprehensible.

"Miss Wallack is thirty years old and beautiful," the reporter began. "As an actress she has won high recognition not only in this country but in England. You may have read something of her in the daily papers, and if—"

"I never read the papers," the other interrupted curtly. "Go on."

"She is unmarried, and as far as anyone knows, had no immediate intention of changing her condition," Hatch resumed, staring curiously at the thin face of the scientist. "I presume she had admirers— most beautiful women of the stage have— but she is one whose life has been perfectly clean, whose record is an open book. I tell you this because it might have a bearing on your conclusion as to a possible reason for her disappearance.

"Now the actual circumstances of that disappearance. Miss Wallack has been playing in Shakespearean repertoire. Last week she was in Springfield. On Saturday night, which concluded her engagement there, she appeared as Rosalind in 'As You Like It.' The house was crowded. She played the first two acts amid

great enthusiasm, and this despite the fact that she was suffering intensely from headache to which she was subject at times. After the second act she returned to her dressing room and just before the curtain went up for the third the stage manager called her. She replied that she would be out immediately. There seems no possible shadow of doubt that it was her voice.

"Rosalind does not appear in the third act until the curtain has been up for six minutes. When Miss Wallack's cue came she did not answer it. The stage manager rushed to her door and again called her. There was no answer. Then, fearing that she might have fainted, he went in. She was not there. A hurried search was made without result, and the stage manager finally was compelled to announce to the audience that the sudden illness of the star would make it impossible to finish the performance.

"The curtain was lowered and the search resumed. Every nook and corner back of the footlights was gone over. The stage doorkeeper, William Meegan, had seen no one go out. He and a policeman had been standing at the stage door talking for at least twenty minutes. It is therefore conclusive that Miss Wallack did not leave by that exit. The only other way it was possible to leave the stage was over the footlights. Of course she didn't go that way. Yet no trace of her has been found. Where is she?"

"The windows?" asked The Thinking Machine.

"The stage is below the street level," explained Hatch. "The window of her dressing room, Room A, is small and barred with iron. It opens into an air shaft that goes straight up for ten feet, and that is covered with an iron grating fixed in the granite. The other windows on the stage are not only inaccessible but are also barred with iron. She could not have approached either of these windows without being seen by other members of the company or the stage hands."

"Under the stage?" suggested the scientist.

"Nothing," the reporter went on. "It is a large cemented basement which was vacant. It was searched, because there was of course a chance that Miss Wallack might have become temporarily unbalanced and wandered down there. There was even a search made of the flies— that is the galleries over the stage where the men who work the drop curtains are stationed."

There was silence for a long time. The Thinking Machine twiddled his fingers and continued to stare upward. He had not looked at the reporter. He broke the silence after a time. "How was Miss Wallack dressed at the time of her disappearance?"

"In doublet and hose— that is, tights," the newspaper man responded. "She wears that costume from the second act until practically the end of the play."

"Was all her street clothing in her room?"

"Yes, everything, spread across an unopened trunk of costumes. It was all as if she had left the room to answer her cue — all in order even to an open box of chocolate-cream candy on her table."

"No sign of a struggle, nor any noise heard?"

"No."

"Nor trace of blood?"

"Nothing."

"Her maid? Did she have one?"

"Oh, yes. I neglected to tell you that the maid, Gertrude Manning, had gone home immediately after the first act. She grew suddenly ill and was excused."

The Thinking Machine turned his squint eyes on the reporter for the first time.

"Ill?" he repeated. "What was the matter?"

"That I can't say," replied the reporter.

"Where is she now?"

"I don't know. Everyone forgot all about her in the excitement about Miss Wallack."

"What kind of candy was it?"

"I'm afraid I don't know that either."

"Where was it bought?"

The reporter shrugged his shoulders; that was something else he didn't know.

The Thinking Machine shot out the questions aggressively, staring meanwhile steadily at Hatch, who squirmed uncomfortably. "Where is the candy now?" demanded the scientist.

Again Hatch shrugged his shoulders.

"How much did Miss Wallack weigh?"

The reporter was willing to guess at this. He had seen her half a dozen times.

"Between a hundred and thirty and a hundred and forty," he ventured.

"Does there happen to be a hypnotist connected with the company?"

"I don't know," Hatch replied.

The Thinking Machine waved his slender hands impatiently; he was annoyed. "It is perfectly absurd, Mr. Hatch," he expostulated, "to come to me with only a few facts and ask advice. If you had all the facts I might be able to do something; but this—"

The newspaper man was nettled. In his own profession he was accredited a man of discernment and acumen. He resented the tone, the manner, even the seemingly trivial questions, which the other asked. "I don't see," he began, "that the candy even if it had been poisoned as I imagine you think possible, or a hypnotist could have had anything to do with Miss Wallack's disappearance. Certainly neither poison nor hypnotism would have made her invisible."

"Of course you don't see!" blazed The Thinking Machine. "If you did, you wouldn't have come to me. When did this thing happen?"

"Saturday night, as I said," the reporter informed him a little more humbly. "It closed the engagement in Springfield. Miss Wallack was to have appeared here in Boston to-night."

“When did she disappear— by the clock, I mean?”

“The stage manager’s time slip shows that the curtain for the third act went up at nine-forty-one— he spoke to her, say, one minute before, or at nine-forty. The action of the play before she appears in the third act takes six minutes; therefore—”

“In precisely seven minutes a woman, weighing more than 130 pounds, certainly not dressed for the street, disappeared completely from her dressing room. It is now five-eighteen Monday afternoon. I think we may solve this crime within a few hours.”

“Crime?” Hatch repeated eagerly. “Do you imagine there is a crime then?”

Professor Van Dusen didn’t heed the question. Instead he rose and paced back and forth across the reception room half a dozen times, his hands behind his back and his eyes cast down. At last he stopped and faced the reporter, who had also risen.

“Miss Wallack’s company, I presume, with the baggage, is now in Boston,” he said. “See every male member of the company, talk to them and particularly study their eyes. Don’t overlook anyone, however humble. Also find out what became of the box of chocolate candy, and if possible how many pieces are out of it. Then report here to me. Miss Wallack’s safety may depend upon your speed and accuracy.”

Hatch was frankly startled. “How—” he began.

“Don’t stop to talk— hurry!” commanded The Thinking Machine. “I will have a cab waiting when you come back. We must get to Springfield.”

The newspaper man rushed away to obey orders. He didn’t understand them at all. Studying men’s eyes was not in his line; but he obeyed nevertheless. An hour and a half later he returned, to be thrust unceremoniously into a waiting cab by The Thinking Machine. The cab rattled away toward South Station, where the two men caught a train, just about to move out for Springfield. Once settled in their seats, the scientist turned to Hatch, who was nearly suffocating with suppressed

information.

"Well?" he asked.

"I found out several things," the reporter burst out. "First, Miss Wallack's leading man, Langdon Mason, who has been in love with her for three years, bought the candy at Schuyler's in Springfield early Saturday evening before he went to the theater. He told me so himself rather reluctantly; but I—I made him say it."

"Ah!" exclaimed The Thinking Machine. It was a most unequivocal ejaculation. "How many pieces of candy are out of the box?"

"Only three," explained Hatch. "Miss Wallack's things were packed into the open trunk in her dressing room, the candy with them. I induced the manager—"

"Yes, yes, yes!" interrupted The Thinking Machine impatiently. "What sort of eyes has Mason? What colour?"

"Blue, frank in expression, nothing unusual at all," said the reporter.

"And the others?"

"I didn't quite know what you meant by studying their eyes, so I got a set of photographs. I thought perhaps they might help."

"Excellent, Excellent!" commented The Thinking Machine. He shuffled the pictures through his fingers, stopping now and then to study one, and to read the name printed below. "Is that the leading man?" he asked at last, and handed one to Hatch.

"Yes."

Professor Van Dusen did not speak again. The train pulled into Springfield at nine-twenty. Hatch followed the scientist without a word into a cab.

"Schuyler's candy store," quickly commanded The Thinking Machine. "Hurry."

The cab rushed off through the night. Ten minutes later it stopped before a brilliantly lighted candy store. The Thinking Machine led the way inside and approached the girl behind the

chocolate counter.

"Will you please tell me if you remember this man's face?" he asked as he produced Mason's photograph.

"Oh, yes, I remember him," the girl replied. "He's an actor."

"Did he buy a small box of chocolates of you Saturday evening early?" was the next question.

"Yes. I recall it because he seemed to be in a hurry; in fact, I believe he said he was anxious to get to the theater to pack."

"And do you recall that this man ever bought chocolates here?" asked the scientist. He produced another photograph and handed it to the girl. She studied it a moment while Hatch craned his neck, vainly, to see.

"I don't recall that he ever did," the girl answered finally.

The Thinking Machine turned away abruptly and disappeared into a public telephone booth. He remained there for five minutes, then rushed out to the cab again, with Hatch following closely.

"City Hospital!" he commanded.

Again the cab dashed away. Hatch was dumb; there seemed to be nothing to say. The Thinking Machine was plainly pursuing some definite line of inquiry, yet the reporter didn't know what. The case was getting kaleidoscopic. This impression was strengthened when he found himself standing beside The Thinking Machine in City Hospital conversing with the house surgeon, Dr. Carlton.

"Is there a Miss Gertrude Manning here?" was the scientist's first question.

"Yes," replied the surgeon. "She was brought here Saturday night, suffering from—"

"Strychnine poisoning, yes, I know," interrupted the other. "Picked up in the street, probably. I am a physician. If she is well enough I should like to ask her a couple of questions."

Dr. Carlton agreed, and Professor Van Dusen, still followed faithfully by Hatch, was ushered into the ward where Miss Wallack's maid lay, pallid and weak. The Thinking Machine

picked up her hand and his slender finger rested for a minute on her pulse. He nodded and seemed satisfied.

"Miss Manning, can you understand me?" he asked.

The girl nodded weakly.

"How many pieces of the candy did you eat?"

"Two," she replied. She stared into the face above her with dull eyes.

"Did Miss Wallack eat any of it up to the time you left the theatre?"

"No."

If the Thinking Machine had been in a hurry previously, he was racing now. Hatch trailed on dutifully behind, down the stairs, and into the cab, whence Professor Van Dusen shouted a word of thanks to Dr. Carlton. This time their destination was the stage door of the theatre from which Miss Wallack had disappeared.

The reporter was muddled. He didn't know anything very clearly except that three pieces of candy were missing from the box. Of these the maid had eaten only two. She had been poisoned. Therefore, it seemed reasonable to suppose that if Miss Wallack had eaten the third piece she also would be poisoned. But poison would not make her invisible. At this point the reporter shook his head hopelessly.

William Meegan, the stage doorkeeper, was easily found.

"Can you inform me, please," began The Thinking Machine, "if Mr. Mason left a box of candy with you last Saturday night for Miss Wallack?"

"Yes," Meegan replied good-naturedly. He was amused at the little man. "Miss Wallack hadn't arrived. Mason brought a box of candy for her nearly every night and usually left it here. I put the one Saturday night on the shelf here."

"Did Mr. Mason come to the theatre before or after the others on Saturday night?"

"Before," replied Meegan. "He was unusually early, I suppose, to pack."

"And the other members of the company coming in stop here, I imagine, to get their mail?" and the scientist squinted up at the mail box above the shelf.

"Sure, always."

The Thinking Machine drew a long breath. Up to this time there had been little perplexed wrinkles in his brow. Now they disappeared.

"Now, please," he went on, "was any package or box of any kind taken from the stage on Saturday night between nine and eleven o'clock?"

"No," said Meegan positively. "Nothing at all until the company's baggage was removed at midnight."

"Miss Wallack had two trunks in her dressing room?"

"Yes. Two whacking big ones too."

"How do you know?"

"Because I helped put 'em in and helped take 'em out," replied Meegan sharply. "What's it to you?"

Suddenly The Thinking Machine turned and ran out to the cab, with Hatch, his shadow, close behind.

"Drive, drive as fast as you know how to the nearest long-distance telephone!" the scientist instructed the cabby. "A woman's life is at stake."

Half an hour later Professor Van Dusen and Hutchinson Hatch were on a train rushing back to Boston. The Thinking Machine had been in the telephone booth for fifteen minutes. When he came out Hatch had asked several questions, to which the scientist vouchsafed no answer. They were perhaps thirty minutes out of Springfield before the scientist showed any disposition to talk. Then he began, without preliminary, much as he was resuming a former conversation.

"Of course if Miss Wallack didn't leave the stage of the theater she was there," he said. "We will admit that she did not become invisible. The problem therefore was to find her on the stage. The fact that no violence was used against her was conclusively proved by half a dozen instances. No one heard her

scream; there was no struggle, no trace of blood. Ergo, we assume in the beginning that she must have consented to the first steps which led to her disappearance. Remember her attire was wholly unsuited to the street.

“Now let us shape a hypothesis which will fit all the circumstances. Miss Wallack had a severe headache. Hypnotic influence will cure headaches. Was there a hypnotist to whom Miss Wallack would have submitted herself? Assume there was. Then would that hypnotist take advantage of his control to place her in a cataleptic condition? Assume a motive and he would. Then, how would he dispose of her?

“From this point questions radiate in all directions. We will confine ourselves to the probable, granting for the moment that this hypothesis, the only one which fits all the circumstances, is correct. Obviously, a hypnotist would not have attempted to get her out of the dressing room. What remains? One of the two trunks in her room.

Hatch gasped. “You mean you think it possible that she was hypnotized and placed in that second trunk, the one that was strapped and locked?” he asked.

“It’s the only thing that could have happened,” said The Thinking Machine emphatically; “therefore that was just what did happen.”

“Why, it’s horrible!” exclaimed Hatch. “A live woman in a trunk for forty-eight hours? Even if she was alive then, she must be dead now.”

The reporter shuddered a little and gazed curiously at the inscrutable face of his companion. He saw no pity, no horror, there; there was merely the reflection of the workings of a brain.

“It does not necessarily follow that she is dead,” explained The Thinking Machine. “If she ate that third piece of candy before she was hypnotized she is probably dead. If it was placed in her mouth after she was in a cataleptic condition the chances are that she is not dead. The candy would not melt and her system could not absorb the poison.”

"But she would be suffocated— her bones would be broken by the rough handling of the trunk— there are a hundred possibilities," the reporter suggested.

"A person in a cataleptic condition is singularly impervious to injury," replied the scientist. "There is of course a chance of suffocation, but a great deal of air may enter a trunk."

"And the candy?" Hatch asked.

"Yes, the candy. We know that two pieces of candy nearly killed the maid. Yet Mr. Mason admitted having bought it. This admission indicated that this poisoned candy is not the candy he bought. Is Mr. Mason a hypnotist? No. He hasn't the eyes. His picture tells me that. We know that Mr. Mason did buy candy for Miss Wallack on several occasions. We know that sometimes he left it with the stage doorkeeper. We know that members of the company stopped there for mail. We instantly see that it is possible for one to take away that box and substitute poisoned candy. All the boxes are alike.

"Madness and the cunning of madness lie back of all this. It was a deliberate attempt to murder Miss Wallack, long pondered and due, perhaps, to unrequited or hopeless infatuation. It began with the poisoned candy, and that failing, went to a point immediately following the moment when the stage manager last spoke to the actress. The hypnotist was probably in her room then. You must remember that it would have been possible for him to ease the headache, and at the same time leave Miss Wallack free to play. She might have known this from previous experience."

"Is Miss Wallack still in the trunk?" asked Hatch after a silence.

"No," replied the Thinking Machine. "She is out now, dead or alive— I am inclined to believe alive."

"And the man?"

"I will turn him over to the police in half an hour after we reach Boston."

From South Station the scientist and Hatch were driven

immediately to Police Headquarters. Detective Mallory, whom Hatch knew well, received them.

"We got your 'phone from Springfield—" he began.

"Was she dead?" interrupted the scientist.

"No," Mallory replied. "She was unconscious when we took her out of the trunk, but no bones are broken. She is badly bruised. The doctor says she's hypnotized."

"Was the piece of candy taken from her mouth?"

"Sure, a chocolate cream. It hadn't melted."

"I'll come back here in a few minutes and awake her," said The Thinking Machine. "Come with us now, and get the man."

Wonderingly the detective entered the cab and the three were driven to a big hotel a dozen blocks away. Before they entered the lobby The Thinking Machine handed a photograph to Mallory, who studied it under an electric light.

"That man is upstairs with several others," explained the scientist. "Pick him out and get behind him when we enter the room. He may attempt to shoot. Don't touch him until I say so."

In a large room on the fifth floor Manager Stanfeld of the Irene Wallack Company had assembled the men of her support. This was done at the 'phoned request of The Thinking Machine. There were no preliminaries when Professor Van Dusen entered. He squinted comprehensively about him, then went straight to Langdon Mason.

"Were you on the stage in the third act of your play before Miss Wallack was to appear— I mean the play last Saturday night?" he asked.

"I was," Mason replied, "for at least three minutes."

"Mr. Stanfeld, is that correct?"

"Yes," replied the manager.

There was a long tense silence broken only by the heavy footsteps of Mallory as he walked toward a distant corner of the room. A faint flush crept into Mason's face as he realized that the questions were almost an accusation. He started to speak, but the steady, impassive voice of The Thinking Machine

stopped him.

“Mr. Mallory, take your prisoner,” it said.

Instantly there was a fierce, frantic struggle, and those present turned to see the detective with his great arms locked about Stanley Wightman, the melancholy Jaques of “As You Like It.” The actor’s face was distorted, madness blazed in the eyes, and he snarled like a beast at bay. By a sudden movement Mallory threw Wightman and manacled him, then looked up to find The Thinking Machine peering over his shoulder at the prostrate man.

“Yes, he’s a hypnotist,” the scientist remarked in self-satisfied conclusion. “It always tells in the pupils of the eyes.”

This, then, was the beginning and end of the first problem. Miss Wallack was aroused, and told a story almost identical with that of The Thinking Machine. Stanley Wightman, whose brooding over a hopeless love for her made a maniac of him, raves and shrieks the lines of Jaques in the seclusion of a padded cell.

35: The Problem of the Broken Bracelet

The girl in the green mask leaned against the foot of the bed and idly fingered a revolver which lay in the palm of her daintily gloved hand. The dim glow of the night lamp enveloped her softly, and added a sinister glint to the bright steel of the weapon. Cowering in the bed was another figure—the figure of a woman. Sheets and blankets were drawn up tightly to her chin, and startled eyes peered anxiously, as if fascinated, at the revolver.

“Now please don’t scream!” warned the masked girl. Her voice was quite casual, the tone in which one might have discussed an affair of far removed personal interest. “It would be perfectly useless, and besides dangerous.”

“Who are you?” gasped the woman in the bed, staring

horror stricken at the inscrutable mask of her visitor. "What do you want?"

A faint flicker of amusement lay in the shadowy eyes of the masked girl, and her red lips twitched slightly. "I don't think I can be mistaken," she said inquiringly. "This is Miss Isabel Leigh Harding?"

"Y-yes," was the chattering reply.

"Originally of Virginia?"

"Yes."

"Great-granddaughter of William Tremaine Harding, an officer in the Continental Army about 1775?"

The inflection of the questioning voice had risen almost imperceptibly; but the tone remained coldly, exquisitely courteous. At the last question the masked girl leaned forward a little expectantly.

"Yes," faltered Miss Harding faintly.

"Good, very good," commented the masked girl, and there was a note of repressed triumph in her voice. "I congratulate you, Miss Harding, upon your self possession. Under the same circumstances most women would have begun by screaming. I should have myself."

"But who are you?" demanded Miss Harding again. "How did you get in here? What do you want?"

She sat bolt upright in bed, with less of fear now than curiosity in her manner, and her luxuriant hair tumbled about her semibare shoulders in profuse dishevelment.

At the sudden movement the masked girl took a firmer grip on the revolver, and moved it forward a little threateningly. "Now please don't make any mistake!" she advised Miss Harding pleasantly. "You will notice that I have drawn the bell rope up beyond your reach and knotted it. The servants are on the floor above in the extreme rear, and I doubt if they would hear a scream. Your companion is away for the night, and besides there is this." She tapped her weapon significantly. "Furthermore, you may notice that the lamp is beyond your reach; so that you

cannot extinguish it as long as you remain in bed."

Miss Harding saw all these things, and was convinced.

"Now as to your question," continued the masked girl quietly. "My identity is of absolutely no concern or importance to you. You would not even recognize my name if I gave it to you. How did I get here? By opening an unfastened window in the drawing room on the first floor and walking in. I shall leave it unlatched when I go; so perhaps you had better have some one fasten it, otherwise thieves may enter." She smiled a little at the astonishment in Miss Harding's face. "Now as to why I am here and what I want."

She sat down on the foot of the bed, drew her cloak more closely about her, and folded her hands in her lap. Miss Harding placed a pillow and lounged against it comfortably, watching her visitor in astonishment. Except for the mask and the revolver, it might have been a cozy chat in any woman's boudoir.

"I came here to borrow from you— borrow, understand," the masked girl went on, "the least valuable article in your jewel box."

"My jewel box!" gasped Miss Harding suddenly. She had just thought of it, and glanced around at the table where it lay open.

"Don't alarm yourself," the masked girl remarked reassuringly; "I have removed nothing from it."

The light of the lamp fell full upon the open casket whence radiated multicolored flashes of gems. Miss Harding craned her neck a little to see, and seeing sank back against her pillow with a sigh of relief.

"As I said, I came to borrow one thing," the masked girl continued evenly. "If I cannot borrow it, I shall take it."

Miss Harding sat for a moment in mute contemplation of her visitor. She was searching her mind for some tangible explanation of this nightmarish thing. After awhile she shook her head, meaning thereby that even conjecture was futile. "What particular article do you want?" she asked finally.

"Specifically by letter, from the prison in which he was

executed by order of the British commander, your great-grandfather, William Tremaine Harding, left a gold bracelet, a plain band, to your grandfather," the masked girl explained; "Your grandfather, at that time a child, received the bracelet, when twenty-one years old, from the persons who held it in trust for him, and on his death, March 25, 1853, left it to your father. Your father died intestate in April, 1898, and the bracelet passed into your mother's keeping, there being no son. Your mother died within the last year. Therefore, the bracelet is now, or should be, in your possession. You see," she concluded, "I have taken pains to acquaint myself with your family history."

"You have," Miss Harding assented. "And may I ask why you want this bracelet?"

"I should answer that it was no concern of yours."

"You said borrow it, I believe?"

"Either I will borrow it or take it."

"Is there any certainty that it will ever be returned? And if so, when?"

"You will have to take my word for that, of course," replied the masked girl. "I shall return it within a few days."

Miss Harding glanced at her jewel box. "Have you looked there?" she inquired.

"Yes," replied the masked girl. "It isn't there."

"Not there?" repeated Miss Harding.

"If it had been there I should have taken it and gone away without disturbing you," the masked girl went on. "Its absence is what caused me to wake you."

"Not there!" said Miss Harding again wonderingly, and she moved as if to get up.

"Don't do that, please!" warned the masked girl quickly. "I shall hand you the box if you like."

She arose and passed the casket to Miss Harding, who spilled out the contents in her lap.

"Why, it is gone!" she exclaimed.

"Yes, from there," said the other a little grimly. "Now please

tell me immediately where it is. It will save trouble."

"I don't know," replied Miss Harding hopelessly.

The masked girl stared at her coldly for a moment, then drew back the hammer of the revolver until it clicked.

Miss Harding stared in sudden terror.

"All this is merely time wasted," said the masked girl sternly, coldly. "Either the bracelet or this!" Again she tapped the revolver.

"If it is not here, I don't know where it is," Miss Harding rushed on desperately. "I placed it here at ten o'clock to-night—here in this box—when I undressed. I don't know—I can't imagine—"

The masked girl tapped the revolver again several times with one gloved finger. "The bracelet!" she demanded impatiently.

Fear was in Miss Harding's eyes now, and she made a helpless, pleading gesture with both white hands. "You wouldn't kill me—murder me!" she gasped. "I don't know. I—Here, take the other jewels. I can't tell you."

"The other jewels are of absolutely no use to me," said the girl coldly. "I want only the bracelet."

"On my honor," faltered Miss Harding, "I don't know where it is. I can't imagine what has happened to it. I— I—" she stopped helplessly.

The masked girl raised the weapon threateningly, and Miss Harding stared in cringing horror.

"Please, please, I don't know!" she pleaded hysterically.

For a little while the masked girl was thoughtfully silent. One shoe tapped the floor rhythmically; the eyes were contracted. "I believe you," she said slowly at last. She arose suddenly and drew her coat closely about her. "Good night," she added as she started toward the door. There she turned back. "It would not be wise for you to give an alarm for at least half an hour. Then you had better have some one latch the window in the drawing room. I shall leave it unfastened. Good night."

And she was gone.

HUTCHINSON Hatch, reporter, had just finished relating the story to The Thinking Machine, incident by incident, as it had been reported to Chief of Detectives Mallory, when the eminent scientist's aged servant, Martha, tapped on the door of the reception room and entered with a card.

"A lady to see you, sir," she announced.

The scientist extended one slender white hand, took the card, and glanced at it.

"Your story is merely what Miss Harding told the police?" he inquired of the reporter. "You didn't get it from Miss Harding herself?"

"No, I didn't see her."

"Show the lady in, Martha," directed The Thinking Machine. She turned and went out, and he passed the card to the reporter.

"By George! it's Miss Harding herself!" Hatch exclaimed. "Now we can get it all straight."

There was a little pause, and Martha ushered a young woman into the room. She was girlish, slender, daintily yet immaculately attired, with deep brown eyes, firmly molded chin and mouth, and wavy hair. Hatch's expression of curiosity gave way to one of frank admiration as he regarded her. There was only the most impersonal sort of interest in the watery blue eyes of The Thinking Machine. She stood for a moment with gaze alternating between the distinguished man of science and the reporter.

"I am Mr. Van Dusen," explained The Thinking Machine. "Allow me, Miss Harding— Mr. Hatch."

The girl smiled and offered a gloved hand cordially to each of the two men. The Thinking Machine merely touched it respectfully; Hatch shook it warmly. The eyes were veiled demurely for an instant, then the lids were lifted suddenly, and she favored the newspaper man with a gaze that sent the blood to his cheeks.

"Be seated, Miss Harding," the scientist invited.

"I hardly know just what I came to say, and just how to say it," she began uncertainly, and smiled a little. "And anyway I had hoped that you were alone; so—"

"You may speak with perfect freedom before Mr. Hatch," interrupted The Thinking Machine. "Perhaps I shall be able to aid you; but first will you repeat the history of the bracelet as nearly as you can in the words of the masked woman who called upon you so— so unconventionally."

The girl's brows were lifted inquiringly, with a sort of start.

"We were discussing the case when your card was brought in," continued The Thinking Machine tersely. "We shall continue from that point, if you will be so good."

The young woman recited the history of the bracelet, slowly and carefully.

"And that statement of the case is correct?" queried the scientist.

"Absolutely, so far as I know," was the reply.

"And as I understand it, you were in the house alone; that is, alone except for the servants?"

"Yes; I live there alone, except for a companion and two servants. The servants were not within the sound of my voice, even if I had screamed, and Miss Talbott, my companion, it happened, was out for the night."

The Thinking Machine had dropped back into his chair, with squint eyes turned upward, and long white fingers pressed tip to tip. He sat thus silently for a long time. The girl at last broke the silence.

"Naturally I was a little surprised," she remarked falteringly, "that I should have appeared just in time to interrupt a discussion of the singular happenings in my home last night; but really—"

"This bracelet," interrupted the little scientist again. "It was of oval form, perhaps, with no stones set in it, or anything of that sort— merely a band that fastened with an invisible hinge.

That's right, I believe?"

"Quite right, yes," replied the girl readily.

It occurred to Hatch suddenly that he himself did not know—in fact, had not inquired—the shape of the bracelet. He knew only that it was gold, and of no great value. Knowing nothing about what it looked like, he had not described it to The Thinking Machine; therefore he raised his eyes inquiringly now. The drawn face of the scientist was inscrutable.

"As I started to say," the girl went on, "the bracelet and the events of last night have no direct connection with the purpose of my visit here."

"Indeed?" commented the scientist.

"No; I came to see if you could assist me in another way. For instance," and she fumbled in her pocket book, "I happened to know, Professor Van Dusen, of some of the remarkable things you have accomplished, and I should like to ask if you can throw any light on this for me."

She drew from the pocketbook a crumpled, yellow sheet of paper—a strip perhaps an inch wide, thin as tissue, glazed, and extraordinarily wrinkled. The Thinking Machine squinted at its manifold irregularities for an instant curiously, nodded, sniffed at it, then slowly began to unfold it, smoothing it out carefully as he went. Hatch leaned forward eagerly and stared. He was a little more than astonished at the end to find that the sheet was blank. The Thinking Machine examined both sides of the paper thoughtfully.

"And where did you find the bracelet at last?" he inquired casually.

"I have reason to believe," the girl rushed on suddenly, regardless of the question, "that this strip of paper has been substituted for one of real value,— I may say one of great value,— and I don't know how to proceed, unless—"

"Where did you find the bracelet?" demanded The Thinking Machine again impatiently.

Hatch would have hesitated a long time before he would

have said the girl was disconcerted at the question, or that there had been any real change in the expression of her pretty face. And yet—

“After the masked woman had gone,” she went on calmly, “I summoned the servants and we made a search. We found the bracelet at last. I thought I had tossed it into my jewel box when I removed it last night; but it seems I was careless enough to let it fall down behind my dressing table, and it was there all the time the—the masked woman was in my room.”

“And when did you make this discovery?” asked The Thinking Machine.

“Within a few minutes after she went out.”

“In making your search, you were guided, perhaps, by a belief that in the natural course of events the bracelet could not have disappeared from your jewel box unless some one had entered the room before the masked woman entered; and further that if anyone had entered you would have been awakened?”

“Precisely.” There was another pause. “And now please,” she went on, “what does this blank strip of paper mean?”

“You had expected something with writing on it, of course?”

“That’s just what I had expected,” and she laughed nervously. “You may rest assured I was considerably surprised at finding that.”

“I can imagine you were,” remarked the scientist dryly.

The conversation had reached a point where Hatch was hopelessly lost. The young woman and the scientist were talking with mutual understanding of things that seemed to have no connection with anything that had gone before. What was the paper anyway? Where did it come from? What connection did it have with the affairs of the previous night? How did—

“Mr. Hatch, a match, please,” requested The Thinking Machine.

Wonderingly the reporter produced one and handed it over. The imperturbable man of science lighted it and thrust the

mysterious paper into the blaze. The girl arose with a sudden, startled cry, and snatched at the paper desperately, extinguishing the match as she did so. The Thinking Machine turned disapproving eyes on her.

"I thought you were going to burn it!" she gasped.

"There is not the slightest danger of that, Miss Harding," declared The Thinking Machine coldly. He examined the blank sheet again. "This way, please."

He arose and led the way into his tiny laboratory across the narrow hall, with the girl following. Hatch trailed behind, wondering vaguely what it was all about. A small brazier flashed into flame as The Thinking Machine applied a match, and curious eyes peered over his shoulders as he held the blank strip, now smoothed out, so that the rising heat would strike it.

For a long time three pairs of eyes were fastened on the mysterious paper, all with understanding now, but nothing appeared. Hatch glanced round at the young woman. Her face wore an expression of tense excitement. The red lips were slightly parted in anticipation, the eyes sparkling, and the cheeks flushed deeply. In staring at her the reporter forgot for the instant everything else, until suddenly:

"There! There! Do you see?"

The exclamation burst from her triumphantly, as faint, scrawly lines grew on the strip suspended over the brazier. Totally oblivious of their presence apparently, The Thinking Machine was squinting steadily at the paper, which was slowly crinkling up into wavy lines under the influence of the heat. Gradually the edges were charring, and the odor of scorched paper filled the room. Still the scientist held the paper over the fire. Just as it seemed inevitable that it would burst into flame, he withdrew it and turned to the girl.

"There was no substitution," he remarked tersely. "It is sympathetic ink."

"What does it say?" demanded the young woman abruptly. "What does it mean?"

The Thinking Machine spread the scorched strip of paper on the table before them carefully, and for a long time studied it minutely.

"Really, my dear young woman, I don't know," he said crabbedly at last. "It may take days to find out what it means."

"But something's written there! Read it!" the girl insisted.

"Read it for yourself," said the scientist impatiently. "I am frank to say it's beyond me as it is now. No, don't touch it. It will crumble to pieces."

Faintly, yet decipherable under a magnifying glass, the three were able to make out this on the paper:

*Stonehedge—idim-sérpa'l ed serueh siort tnaeG ed etéT al
rap eétej erbmo'l ed tniop ud zerit sruO'd rehcoR ud eueuq ud
dron ua sdeip tneC.*

W.F.H.

"What does it mean? What does it mean?" demanded the young woman impatiently. "What does it mean?"

The sudden hardening of her tone caused both Hatch and The Thinking Machine to turn and stare at her. Some strange change had come over her face. There was chagrin, perhaps, and there was more than that,— a merciless glitter in the brown eyes, a grim expression about the chin and mouth, a greedy closing and unclosing of the small, well shaped hands.

"I presume it's a cipher of some sort," remarked The Thinking Machine curtly. "It may take time to read it and to learn definitely just where the treasure is hidden, and you may have to wait for—"

"Treasure!" exclaimed the girl. "Did you say treasure? There is treasure, then?"

The Thinking Machine shrugged his shoulders. "What else?" he asked. "Now, please, let me see the bracelet."

"The bracelet!" the girl repeated, and again Hatch noted that quick change of expression on the pretty face. "I— er— must

you see it? I— er—” And she stopped.

“It is absolutely necessary, if I make anything of this,” and the scientist indicated the charred paper. “You have it in your pocketbook, of course.”

The girl stepped forward suddenly and leaned over the laboratory table, intently studying the mysterious strip of paper. At last she raised her head as if she had reached a decision.

“I have only a— a part of the bracelet,” she announced, “only half. It was unavoidably broken, and—”

“Only half?” interrupted The Thinking Machine, and he squinted coldly into the young woman’s eyes.

“Here it is,” she said at last, desperately almost. “I don’t know where the other half is; it would be useless to ask me.”

She drew an aged, badly scratched half circlet of gold from her pocketbook, handed it to the scientist, then went and looked out the window. He examined it— the delicate decorative tracings, then the invisible hinge where the bracelet had been rudely torn apart. Twice he raised his squint eyes and stared at the girl as she stood silhouetted against the light of the window. When he spoke again there was a deeper note in his voice— a singular softening, an unusual deference.

“I shall read the cipher of course, Miss Harding,” he said slowly. “It may take an hour, or it may take a week, I don’t know.” Again he scrutinized the charred paper. “Do you speak French?” he inquired suddenly.

“Enough to understand and to make myself understood,” replied the girl. “Why?”

The Thinking Machine scribbled off a copy of the cipher and handed it to her.

“I’ll communicate with you when I reach a conclusion,” he remarked. “Please leave your address on your card here,” and he handed her the card and pencil.

“You know my home address,” she said. “Perhaps it would be better for me to call this afternoon late or to-morrow.”

“I’d prefer to have your address,” said the scientist. “As I say,

I don't know when I shall be able to speak definitely."

The girl paused for a moment and tapped the blunt end of the pencil against her white teeth thoughtfully with her left hand. "As a matter of fact," she said at last, "I am not returning home now. The events of last night have shaken me considerably, and I am now on my way to Blank Rock, a little sea shore town where I shall remain for a few days. My address there will be the High Tower."

"Write it down, please!" directed The Thinking Machine tersely. The girl stared at him strangely, with a challenge in her eyes, then leaned over the table to write. Before the pencil had touched the card, however, she changed her mind and handed both to Hatch, with a smile.

"Please write it for me," she requested. "I write a wretched hand anyway, and besides I have on my gloves." She turned again to the little scientist, who stood squinting over her head. "Thank you so much for your trouble," she said in conclusion. "You can reach me at this address either by wire or letter for the next fortnight."

And a few minutes later she was gone. For awhile The Thinking Machine was silent as he again studied the faint writing on the strip of paper.

"The cipher," he remarked to Hatch at last, "is no cipher at all; it's so simple. But there are some other things I shall have to find out first, and—suppose you drop by early to-morrow to see me."

Half an hour later The Thinking Machine went to the telephone, and after running through the book called a number.

"Is Miss Harding home yet?" he demanded, when an answer came.

"No, sir," was the reply, in a woman's voice.

"Would you mind telling me, please, if she is left handed?"

"Why, no, sir. She's right handed. Who is this?"

"I knew it, of course. Good by."

THE THINKING Machine was squinting into the inquiring eyes of Hutchinson Hatch.

"The reason why the police are so frequently unsuccessful in explaining the mysteries of crime," he remarked, "is not through lack of natural intelligence, or through lack of a birthgiven aptitude for the work, but through the lack of an absolutely accurate knowledge which is wide enough to enable them to proceed. Now here is a case in point. It starts with a cipher, goes into an intricate astronomical calculation, and from that into simple geometry. The difficulty with the detectives is not that they could not work out each of these as it was presented, perhaps with the aid of some outsider, but that they would not recognize the existence of the three phases of the problem in the first place.

"You have heard me say frequently, Mr. Hatch, that logic is inevitable— as inevitable as that two and two make four not sometimes, but all the time. That is true; but it must have an indisputable starting point,— the one unit which is unassailable. In this case unit produces unit in order, and the proper array of these units gives a coherent answer. Let me demonstrate briefly just what I mean.

"A masked woman, employing the method at least of a thief, demands a certain bracelet of this Miss— Miss Harding. (Is that her name?) She doesn't want jewels; she wants that bracelet. Whatever other conjectures may be advanced, the one dominant fact is that that bracelet, itself of little comparative value, is worth more than all the rest to her,—the masked woman, I mean,— and she has endangered liberty and perhaps life to get it. Why? The history of the bracelet as she herself stated it to Miss Harding gives the answer. A man in prison, under sentence of death, had that bracelet at one time. We can conjecture immediately, therefore, that the masked woman knew that the fact of its having been in this man's possession gave him an opportunity at least of so marking the bracelet,— or of confiding in it, I may say, a valuable secret. One's first

thought, therefore, is of treasure—hidden treasure. We shall go further and say treasure hidden by a Continental officer to prevent its falling into other hands as loot. This officer under sentence of death, and therefore cut off from all communication with the outside, took a desperate means of communicating the location of the treasure to his heirs. That is clear, isn't it?"

The reporter nodded.

"I described the bracelet,— you heard me,— and yet I had never seen it, nor had I a description of it. That description was merely a forward step, a preliminary test of the truth of the first assumptions. I reasoned that the bracelet must be of a type which could be employed to carry a message safely past prying eyes; and there is really only one sort which is feasible, and that is the one I described. These bracelets are always hollow, the invisible hinges hold them together on one side, and they lock on the other. It would be perfectly possible, therefore, to write the message the prisoner wanted to send out on a strip of tissue paper, or any thin paper, and cram it into the bracelet at the lock end. In that event it would certainly pass minute inspection; the only difficulty would be for the outside person to find it. That was a chance; but it was all a chance anyway.

"When the young woman came here and produced a strip of thin paper, apparently blank, with the multitude of wrinkles in it, I immediately saw that that paper had been recovered from the bracelet. It was old, yellow, and worn. Therefore, blank or not, that was the message which the prisoner had sent out. You saw me hold it over the brazier, and saw the characters appear. It was sympathetic ink, of course.

"Hard to make in prison, you say? Not at all. Writing either with lemon juice or milk, once dry, is perfectly invisible on paper; but when exposed to heat at any time afterward, it will appear. That is a chemical truth.

"Now the thing that appeared was a cipher— an absurd one, still a cipher. Extraordinary precaution of the prisoner who was about to die! This cipher—let me see exactly," and the scientist

spelled it out:

“ ‘Stonehedge— idim-sérpa’l ed serueh siort tnaeG ed etéT al rap eétej erbmo’l ed tniop ud zerit sruO’d rehcoR ud eueuq ud dron ua sdeip tnec.’

“If you know anything of languages, Mr. Hatch,” he continued, “you know that French is the only language where the apostrophe and the accent marks play a very important part. A moment’s study of this particular cipher therefore convinced me that it was in French. I tried the simple expedient of reading it backward, with this result:

“ ‘Stonehedge. Cent pieds au nord du queue du Rocher d’Ours tirez du point de l’ombre jetée par La Tête de Geant trois heures de l’après-midi.’

“Here, therefore, was a sensible statement in French, which translated freely into English is simply:

“ ‘Stonehedge. Hundred feet due north from tail Bear Rock through apex (or point) of shadow cast by Giant’s Head, three p.m.’

“I had read the cipher and knew its English before I gave a copy of it to the young woman who was here. I specifically asked her if she knew French, to give her a clue by which she might interpret the cipher herself. And thus I blazed the way within a few minutes to the point where astronomical and geometrical calculations were next. Please bear in mind that this message from the dead was not dated.

“Now, about the young woman herself,” continued the scientist after a moment. “The statement of how she came to find the bracelet was obviously untrue; particularly are we convinced of this when she cannot, or will not, explain how it was broken. Therefore, another field is open for scrutiny. The bracelet was broken. If we assume that it is *the* bracelet, and

there is no reason to doubt it, and we know it is in her possession, we know also that more than one person had been searching for it. We know positively that that other person— not the masked girl, but the one who had preceded her to Miss Harding's room on the same night— got the bracelet from Miss Harding, and we are safe in assuming that it passed out of that other person's hand by force. The bracelet had been literally torn apart at the hinge. In other words, there had been a physical contest, and one piece of the circlet—the piece with the message— passed out of the hands of the person who had preceded the masked woman and stolen the bracelet.

"But this is by the way. Stonehedge is the name of the old Tremaine Harding estate, about twenty miles out, and there the Tremaine Harding family valuables were hidden by William Tremaine Harding, who died by bullet, a martyr to the cause of freedom. We shall get the treasure this afternoon, after I have settled one or two dates and made the astronomical and geometrical calculations which are necessary."

There was silence for a minute or more, broken at last by the impatient "Honk, honk!" of an automobile outside.

"We'll go now," announced The Thinking Machine as he arose. "There is a car for us."

He led the way out, Hatch following. A heavy touring car, with three seats, driven by a young woman, was waiting at the door. The woman was a stranger to the reporter; but there was no introduction.

"Did you get the date of Captain Harding's imprisonment?" asked The Thinking Machine.

"Yes," was the reply,—"June 3, 1776."

The Thinking Machine clambered in, Hatch following silently, and the car rushed away. It paused in a suburb long enough to pick up two workmen with picks and shovels, who took their places in the back seat, and then the automobile with its strange company— a pretty woman, a newspaper reporter, a distinguished scientist, and two laborers— proceeded on its

way. Hatch, alone in the second seat, heard only one remark by the scientist, and this was:

“Of course she was clever enough to read the cipher, after I gave her the hint that it was in French; so we shall find that the place has been dug over; but there is only one chance in three hundred and sixty-five that the treasure was found. I give her credit for extraordinary cleverness; but not enough to make the necessary astronomical calculations.”

A run of an hour and a half brought them to Stonehedge, a huge old estate with ramshackle dwelling and acres of rock ridden ground. Away off in the northwest corner were two large stones— Bear Rock and Giants Head— rising fifteen or twenty feet above the ground. The car was driven over a rough road and stopped near them.

“You see, she did read the cipher,” remarked the scientist placidly. “Workmen have already been here.”

Straight ahead of them was an excavation ten feet or more square. Hatch peered into it, while The Thinking Machine busied himself by planting a stake at the so-called tail of Bear Rock. Then he glanced at his watch,—it was half past two o’clock,— and sat down with the young woman in the shadow of Giants Head. Hatch lounged on the ground near them, and the workmen made themselves comfortable in their own way.

“We can’t do anything till three o’clock,” remarked The Thinking Machine.

“And just what shall we do then?” inquired the young woman expectantly. It was the first time she had spoken since they started.

“It is rather difficult to explain,” said The Thinking Machine. “The hole there proves that the young woman read the cipher, of course. Now here briefly is why the treasure was not found. To-day is September 17. A measurement was made, according to instructions, from the tail of Bear Rock through the apex of the shadow of Giants Head precisely at three o’clock yesterday, one hundred feet due north, or as near north as possible. The

hole shows the end of the hundred-foot line. Now, we know that Captain Harding was imprisoned on June 3, 1776; we know he buried the treasure before that date; we have a right to assume that it was only shortly before. On June 3 of any year the apex of the shadow will be in a totally different place from September 17, because of the movement of the earth about the sun and the relative changes in the sun's position. What we must do now is to find precisely where the shadow falls at three o'clock today, then make our calculations to show where it will fall say one week before June 3. Do you follow me? In other words, a difference of half a foot in the location of the apex of the shadow will make a difference of many feet at the end of one hundred feet when we follow the cipher."

At precisely three o'clock The Thinking Machine noted the position of the shadow, and then began a calculation which covered two sheets of blank paper which Hatch had in his pocket.

"This is correct," said The Thinking Machine at last as he arose and planted another stake in the ground. "There is a chance of course that we miss fire the first time because of possible seismic disturbances at sometime past or of a change in the surface of the ground; but this is mathematically correct."

Then, with the assistance of the newspaper man and the young woman, he drew his hundred-foot line, and planted a third stake.

"Dig here!" he told the workmen.

One hour later the long lost family plate and jewels of the ancient Harding family had been unearthed. The Thinking Machine and the others stooped over the rotting box which had been brought to the surface and noted the contents. Roughly the value was above two hundred thousand dollars.

"And I think that is all, Miss Harding," said the scientist at last. "It is yours. Load it into your car there and drive home."

"Miss Harding!" Hatch repeated quickly, with a glance at the young woman. "Miss Harding?"

The Thinking Machine turned and squinted at the reporter for a moment. "Didn't you know that the young woman who called on me was not Miss Harding?" he demanded. "It was evident in her every act,— in her failing to explain the broken bracelet; and in the fact that she was left handed. You must have noticed that. Well, this is Miss Harding, and she is right handed."

The girl smiled at Hatch's astonishment.

"Then the other young woman merely impersonated Miss Harding?" he asked at last.

"That is all, and cleverly," replied The Thinking Machine. "She merely wanted me to read the cipher for her. I put her on the track of reading it herself purposely, and she and the persons associated with her are responsible for the excavation over there."

"But who is the other young woman?"

"She is the one who visited Miss Harding, wearing a mask."

"But what is her name?"

"I'm sure I haven't the faintest idea, Mr. Hatch," responded the little scientist shortly. "We have her to thank, however, for placing a solution of the affair into our hands. Who she is and what she is, is of no real consequence, particularly as Miss Harding has this."

The scientist indicated the box with one small foot, then turned and clambered into the waiting automobile.

36: Five Millions by Wireless

WITHIN the great room, dim, shadowy, mysterious as the laboratory of some alchemist of old, and foul with the pungent odors of strange chemical messes, there blazed a single light, a powerful electrical contrivance fitted with reflector, and so shaded that its concentrated rays beat down fiercely upon a table littered with scientific apparatus; and bending over the

table was a man, an odd, almost pathetic little figure, slight to childishness, small of stature, attenuated. His hair was a straw-colored thatch thrown back impatiently from a domelike brow, increasing in effect the abnormal size of his head. His eyes were narrow slits of pale blue, squinting petulantly through thick spectacles; his wizened, clean-shaven face was white with the pallor of the student; his mouth was a straight, bloodless line. His hands, busy now at some microscopic labor, were slender and almost transparent under the blinding glare from above; his fingers long, sensitive, delicate.

The door opened, and an elderly woman appeared with a tray.

"Some coffee and rolls, sir," she explained. "Really you ought to have something, sir."

"Put them down." The little man didn't lift his eyes from his work; he spoke curtly.

"And if you should ask me, sir," the woman continued, "I'd say you ought to stop whatever you're a-doing of, and take some rest, sir."

"Tut, tut, Martha!" the little man objected. "I've only just begun."

"You've been a-standing right there, sir," Martha denied, in righteous indignation, "ever since Sunday afternoon at four o'clock."

"What time is it now?"

"It's ten o'clock Tuesday morning, sir."

"Dear me, dear me!"

"You haven't slept a wink, sir," Martha complained, "and you haven't eat enough—"

"Martha, you annoy me," the little man interrupted peevishly. "Run along and attend to your duties."

"But, sir, you can't keep a-going like—"

"Very well, then," and there was a childish tone of resignation in the master's voice. "It's Tuesday, you say? Tell me when it's noon Wednesday."

Martha went out with a helpless shrug of her shoulders, leaving him alone.

Hours passed. The coffee, untasted, grew cold. Motionless, the little man continued at his labors with tense eagerness in his narrow eyes, oblivious alike of the things about him, and of exhausted nature. The will beneath the straw-colored thatch knew not weariness.

And this was “The Thinking Machine” — Professor Augustus S. F. X. Van Dusen, Ph. D., F. R. S., M. D., LL. D., et cetera, et cetera— logician, analyst, worker of miracles in the exact sciences, intellectual wizard of his time; this the master mind, exalted by the cumulative genius of generations gone before, which had isolated itself on a pinnacle of achievement through sheer force of applied reason. Once he had been the controversial center of his profession, riding down pet theories and tentative surmises and cherished opinions, and setting up instead precise facts, a few rescued from the chaos he had himself created, more of his own uncovering. Now he was the court of last appeal in the sciences.

The Thinking Machine! No one of the honorary degrees thrust upon him willy-nilly by the universities of the world described him half so accurately as did this title— a chance paradox applied by a newspaper man. Seemingly tireless, calm, unemotional— unless one counted as an emotion the constant note of irritation in his voice— terse of speech, crabbed of manner, and possessed of an uncanny faculty of separating all things into their primal units, he lived in a circumscribed sphere which he had stripped of all illusion. The mental precision which distinguished his laboratory work characterized all else he did. If any man ever reduced human frailties, human virtues, and human motives to mathematics that man was The Thinking Machine.

It has been my pleasure to set down at another time and place some results of The Thinking Machine’s investigations along lines disassociated with abstruse problems of his

profession, these being chiefly instances in which he had turned the light of cold logic upon perplexing criminal mysteries with well-nigh mathematical precision.

Also, it has been my pleasure to relate at length some of those curious adventures which led to The Thinking Machine's incongruous friendship for Hutchinson Hatch.

Hatch was a newspaper reporter, a young man of vitality and enthusiasm and keen wordliness; he was a breath of the outside to this odd little man, who never read papers, who rarely came into contact with things as they are, who had not even the small vices which bring individuals together. It had been Hatch who first applied the title of The Thinking Machine to the eminent scientist, and the phrase had stuck.

Perhaps not the least interesting of the adventures of these two together was that which culminated in the bestowal upon The Thinking Machine of the Order of the Iron Eagle, second class, by Emperor Gustavus, of Germania-Austria. It so happened in that case that the fate of an empire and the future of its royal house lay for a time in The Thinking Machine's slender hands. Failure on his part certainly would have changed the history of Europe, and probably the map. This problem was purely intellectual, and came to his attention at a time when physical vitality was at its lowest, after forty-eight hours' unceasing work in his laboratory.

The door opened, and Martha entered.

"Martha," the eminent scientist stormed, "if you've brought me more coffee I shall discharge you!"

"It isn't coffee, sir," she replied. "It's a—"

"And don't tell me it's already twelve o'clock Wednesday."

"It's a card, sir. Two gentlemen who—"

"Can't see them."

Not for an instant had the squinting eyes been raised from the work which engrossed The Thinking Machine. Martha laid the card on the table; he glanced at it impatiently. Herr Von Hartzfeldt!

"He says, sir, it's a matter of the utmost importance," Martha explained.

"Ask him who he is and what he wants."

The unexpectedness of the answer Martha brought back straightened The Thinking Machine where he stood.

"He says, sir," she reported, "that he's the ambassador to the United States from Germania-Austria."

"Show him in at once."

Two gentlemen entered, one Baron Von Hartzfeldt, polished, courtly, distinguished in appearance, a famous figure in the diplomatic world; the other of a more rugged type, shorter, heavier, with bristly hair and beard, and deeply bronzed face. For an instant they stared into the wizened countenance of the little scientist with something like astonishment.

"We have come to you, Mr. Van Dusen, in an extremity the gravity of which cannot be exaggerated," Baron Von Hartzfeldt began suavely. "We know, as all the world knows, your splendid achievements in science. We know, too, that you have occasionally consented to investigate more material problems—that is, mysteries of crimes, and—"

"Please come to the point," The Thinking Machine interrupted tartly. "If you hadn't known who I was, and hadn't needed me, you wouldn't have come. Now, what is it? This gentleman—"

"Pardon me," the ambassador begged, in polite confusion at the curt directness of his host. "Admiral Hausen-Aubier, of the royal navy, commanding the Mediterranean Fleet, now visiting your city on his flagship, the *Friedrich der Grosse*, which lies in the outer harbor."

The admiral bowed ceremoniously, and, accepting a slight movement of The Thinking Machine's hand as an invitation to seats, the two gentlemen sat down. Not until that moment had the scientist realized his own weariness. The big chair offered grateful relaxation to tired limbs, and, with his enormous head tilted back, narrowed eyes turned upward, and slender fingers

precisely tip to tip, he waited.

"One of my officers has disappeared from the flagship—rather, has utterly vanished," said Admiral Hausen-Aubier. He spoke excellent English, but there was a guttural undercurrent of excitement in his tone. "He went to his stateroom at midnight; next morning at seven o'clock he was gone. The guard at his door had been drugged with chloroform, and can tell nothing."

"Guard at the door?" questioned The Thinking Machine.
"Why?"

Admiral Hausen-Aubier seemed oddly disturbed by the question. He shot a hasty glance at Baron Von Hartzfeldt.

"Ship discipline," explained the diplomat vaguely.

"Was he under arrest?"

"Oh, no!" This from the admiral.

"Do you sleep with a guard at your door?"

"No."

"Any of the other officers?"

"No."

"Go on, please."

"There isn't much to tell." There was bewilderment, deep concern, grief even, in the bronzed face. "The officer's bed had been occupied, but there was no sign of a struggle. It was as if he had arisen, dressed, and gone out. There was no note, no shred or fragment of a clue— nothing. No one saw him from the moment he entered his stateroom and closed his door— not even the guard. There were half a dozen sentries, watchmen, on deck; neither saw nor heard anything out of the ordinary. He isn't aboard ship; we have searched from keel to signal yard; and he didn't go overside in a ship's boat; they are all accounted for. He is not a particularly strong swimmer, and could not have reached shore in that way."

"You say the guard had been chloroformed," The Thinking Machine went back. "Just what happened to him? How do you know he was chloroformed?"

"By the odor," replied the admiral, answering the last

question first. "In order to enter the officer's suite it was necessary—"

"Suite, did you say?"

"Yes; that is, he occupied more than one stateroom—"

"I understand. Go on."

"It was necessary to pass through an antechamber. The guard slept there. He says it must have been after one o'clock when he went to sleep. Next morning he was found unconscious, and the officer was gone." He paused. "There can be no question whatever of the guard's integrity. He has been attached to the— the officer for many years."

With eyes all but closed, The Thinking Machine sat motionless for minute after minute, the while thin, spidery lines of thought ruffled the domelike brow. At last:

"The matter hasn't been reported to the police?"

"No." Admiral Hausen-Aubier looked startled.

"Why not?"

"Because," Baron Von Hartzfeldt answered, "when it was brought to my attention in Washington by wire, we decided against that. The affair is extremely delicate. It is inadvisable that the police even should so much as suspect—"

The Thinking Machine nodded.

"How about the secret service?"

"That bureau has been at work on the case from the first," the diplomatist replied; "also half a dozen secret agents attached to the embassy. You must understand, Mr. Van Dusen, that it is absolutely essential that no word of the disappearance — not even a hint of it— be allowed to become public. The result would be a— a disaster. I can't say more."

"Perhaps," suggested The Thinking Machine irrelevantly, "perhaps the officer deserted?"

"I would vouch for his loyalty with my life," declared the admiral, with deep feeling.

"Or perhaps it was suicide?"

Again there was a swift interchange of glances between the

admiral and the ambassador. Obviously that was a possibility that had occurred to each of them, and yet one that neither dared admit.

"Impossible!" the diplomat shook his head.

"Nothing is impossible," snapped The Thinking Machine curtly. "Don't say that. It annoys me exceedingly." Fell a short silence. Finally: "Just when did your officer disappear?"

"Last Tuesday— almost a week ago," Admiral Hausen-Aubier told him.

"And nothing— nothing— has been heard of him? Or from him? Or from any one else concerning him?"

"Nothing— not a word," Admiral Hausen-Aubier said. "If we could only hear! If we could only know whether he is living or dead!"

"What's his name?"

"Lieutenant Leopold Von Zinckl."

For the first time, The Thinking Machine lowered his eyes and swept the countenances of the two men before him— both grave, troubled, lined with worry. Under his curious scrutiny, the diplomatist retained his self-possession by sheer force of will; but a vital, consuming nervousness seemed to seize upon the man of the sea.

"I mean," and again the scientist was squinting into the gloom above, "I mean his *real* name."

Admiral Hausen-Aubier's broad face flushed suddenly as if from a blow, and he started to his feet. Some subtle warning from the ambassador caused him to drop back into his seat.

"That is his real name," he said distinctly; "Lieutenant Leopold Von Zinckl."

"May I ask," The Thinking Machine was speaking very slowly, "if his majesty the emperor has been informed of Lieutenant Von Zinckl's disappearance?"

Perhaps The Thinking Machine anticipated the effect of the question; perhaps he did not. Anyway, he didn't look around when Admiral Hausen-Aubier came to his feet with a mighty

Teutonic exclamation, and strode the length of the big room, his face dead white beneath the coat of bronze. Baron Von Hartzfeldt remained seated, apparently fascinated by some strange, newly discovered quality in the scientist.

"We have not informed the emperor of the affair as yet," he said, at last, steadily. "We thought it inadvisable to go so far until every effort had been made to—"

The Thinking Machine interrupted him with an impatient gesture of one slender hand.

"As a matter of fact, the situation is like this, isn't it?" he queried abruptly. "Prince Otto Ludwig, heir apparent to the throne of Germania-Austria, has been abducted from the royal suite of the battleship *Friedrich der Grosse*, in the harbor of a friendly nation?"

There was an instant's amazed silence. Suddenly Admiral Hausen-Aubier covered his face with his hands, and stood, his great shoulders shaking. Straining nerves had broken at last. Baron Von Hartzfeldt, ripe in diplomatic experience, seemed merely astonished, if one might judge by the face of him.

"How do you know that?" he inquired quietly, after a moment. "Outside of the secret service and my own agents, there are not six persons in the world who are aware—"

"How do I know it?" interrupted The Thinking Machine. "You have just told me. Logic, logic, logic!"

"I have told you?" There was blank bewilderment on the diplomatist's face.

"You and Admiral Hausen-Aubier together," The Thinking Machine declared petulantly.

"But how, man, how?" demanded Baron Von Hartzfeldt. "Of course, you knew from the newspapers that his highness, Crown Prince Otto Ludwig, was visiting America; but—"

"I never read newspapers," snapped The Thinking Machine. "I didn't know he was here any more than I knew the battleship *Friedrich der Grosse* was in the harbor. It's logic, logic— the adding together of the separate units— a simple demonstration

of the fact that two and two make four, not *sometimes*, but *all* the time.”

Admiral Hausen-Aubier, having mastered the emotion which had shaken him, resumed his seat, staring curiously into the wizened face before him.

“Still I don’t understand,” Baron Von Hartzfeldt insisted. “Logic, you say. How?”

“I’ll see if I can make it clear.” And there was that in the manner of the eminent man of science which was no compliment to their perspicacity. “You tell me an officer has disappeared, that his guard was chloroformed. The officer was not under arrest, and no other officer aboard ship had a guard. I assume, therefore, for the moment that the officer was a man of consequence, else he was mentally irresponsible. An instant later you tell me how to enter the officer’s suite— not stateroom, but suite. Ergo, a man of so much consequence that he occupies a suite; a man of so much consequence that you didn’t dare report his disappearance to the police; a man of so much consequence that public knowledge of the affair would precipitate disaster. Do you follow the thread?”

Fascinated, the two listeners nodded.

“Very well,” The Thinking Machine resumed, in that odd little tone of irritation. “There are only a few persons in the world of so much consequence as all that— that is, of so much consequence aboard a ship of war. Those are members of the royal household. I am of German descent; hence I am well acquainted with the histories of the German countries. I know that Emperor Gustavus has only one son, Otto Ludwig, the crown prince. I know that no reigning king has ever visited America; therefore logic, inexorable, indisputable logic, tells me that Prince Otto Ludwig is the officer who occupied the royal suite aboard your ship.”

He paused, and readjusted himself in the great chair. When he spoke again, it was in the tone of one who is thoughtfully checking off and verifying the units of a problem he has solved.

His two visitors were staring at him breathlessly.

"Of course, no royal person save a son of the house of Germania-Austria would be occupying the royal suite on a Germania-Austrian battleship," he said slowly. "Proper adjustment of the actual facts leading straight to the crown prince removed instantly as a possibility a vague suggestion that the officer with the guard at his door, while not a prisoner, was mentally irresponsible. I've made myself clear, I hope?"

"It's marvelous!" ejaculated the diplomatist. "If any man can lead us to the end of this mystery, you are that man!"

"Thanks," returned The Thinking Machine dryly.

"You said," Admiral Hausen-Aubier questioned tensely, "that his highness had been abducted?"

"Certainly."

"Why abducted instead of— of— murdered—" He shuddered a little. "Instead of suicide?"

"That man who is clever enough and bold enough to board your ship and chloroform a guard is not fool enough to murder a man and then drag him out over the guard and throw him into the sea," was the reply, "or to drag him out and then murder him. In either event, such an act would have been useless; and as a rule murderers don't do useless things. As for suicide, it would not have been necessary for the prince to chloroform his guard, or even to leave his stateroom. Remains, therefore, only abduction."

"But who abducted him?" the admiral insisted. "Why? How was he taken away from the ship?"

The Thinking Machine shrugged his narrow shoulders.

"I don't know," he said. "Either one of a dozen ways— aeroplane, rowboat, submarine—" He stopped.

"But— but no one heard anything," the admiral pointed out.

"That doesn't signify."

There seemed nothing to cling to, no tangible fact upon which to base even understanding. Aeroplane— submarine— 'twas fantasy, preposterous, unheard of. Hopelessly enough,

Admiral Hausen-Aubier turned back to the one vital question:

“At any rate, the prince is alive?”

“I don’t know. He was abducted a week ago. You’ve heard nothing since. He may have been murdered after he was taken away. He may have been. I doubt it.”

Admiral Hausen-Aubier arose tragically, with haggard face, a light of desperation in his eyes, his powerful, sun-dyed hands pressed to his temples.

“If he is dead, do you know what it means?” he demanded vehemently. “It means the fall of the royal house of Germania-Austria with the passing of our emperor, who is now nearly eighty; it means the end of our country as a monarchy; it means war, revolution, a— a republic!”

“That wouldn’t be so bad,” commented The Thinking Machine oddly. “There’ll be nothing but republics in a few years; witness France, Portugal, China—”

“You can’t realize the acute political situation in my country,” Admiral Hausen-Aubier rushed on, heedless of the other’s remark. “Already there are dissensions; the emperor holds his kingdom together with a rod of iron, and his people only submit because they expect so much of Prince Otto Ludwig when he ascends the throne. He is popular with his subjects— the crown prince, I mean— and they would welcome him as emperor— welcome him, but no one else. It is absolutely necessary that he be found! The future of my country— our country,” and he turned to Baron Von Hartzfeldt, “depends upon finding him.”

Seemingly some new thought was born in The Thinking Machine’s mind. His eyes opened slightly, and he turned upon Baron Von Hartzfeldt inquiringly. Apparently the ambassador understood, for he nodded.

“He is revealing diplomatic secrets,” he said, with a slight movement of his shoulders; “but what he says is true.”

“In that case—” The Thinking Machine began; and then he lapsed into silence. For minute after minute he sat, heedless of the nervous pacing of Admiral Hausen-Aubier, heedless of the

constant interrogation of the ambassador's eyes.

"In that case—" the ambassador prompted.

"Is Crown Prince Otto Ludwig here incognito, or is it generally known that he is in this country?" the scientist questioned suddenly.

"He is here officially," was the response; "that is, publicly. The government of the United States has received him and entertained him, and you know all that that means."

"Then how do you— have you— accounted for his disappearance?"

"Lies!" Admiral Hausen-Aubier broke in bitterly. "He is supposed to be dangerously ill, confined to his stateroom aboard the *Friedrich der Grosse*; and no one except the ship's surgeon is permitted to see him. We have lied even to our emperor! He believes the prince is ill; if he understood that his son, the heir apparent, was missing, dead, perhaps— *ach, Gott!* Every moment I am expecting sailing orders— orders to return home. I can't go back to my king and tell him that the son he intrusted to my care, the hope and salvation of my country, is— is— I can't even say dead— I could only say that I don't know."

There was something magnificent in the bronzed old sailorman—something at once rugged and tender and fierce in his loyalty. The Thinking Machine studied the grief-stricken face curiously. Unashamed, Admiral Hausen-Aubier permitted the tears to gather in his eyes and roll down his furrowed cheeks.

"I don't care for myself," he explained huskily. "I do care for my country, for my prince. In any event, there remains for me only dishonor and death."

"Suicide?" questioned the scientist coldly.

"What else is there?"

"That," The Thinking Machine murmured acridly, "would improve the situation a lot! If I had committed suicide every time I had a problem to solve I should have been very dead by this time." His manner changed. "We know the prince was abducted; he is probably not dead, but we have no word of him

or from him; therefore, there remains only—”

“Only what?” The question came from his two visitors simultaneously.

“Only a question of the most effective way of establishing communication with him.”

“If we knew how to communicate with him, we’d go get him instead!” declared Admiral Hausen-Aubier grimly. “There are eight hundred men on the battleship who—”

The Thinking Machine arose, stood staring blankly at the two, much as if he had never seen them before; then walked over to his worktable, and shut off the great electric light.

“It’s easy enough to communicate with Prince Otto Ludwig,” he said, as he returned to them. “There are half a dozen ways.”

“Then why, if it is so easy,” demanded the diplomatist, “why hasn’t he communicated with his ship?”

“There’s always a chance that he doesn’t want to, you know,” was the enigmatic response. “How many persons know of his disappearance?”

“Only five outside of the secret service and the embassy agents,” Admiral Hausen-Aubier answered. “They are Baron Von Hartzfeldt here, the guard, the ship’s commander, the ship’s surgeon, and myself.”

“Too many!” The Thinking Machine shook his head slowly. “However, let’s go aboard the *Friedrich der Grosse*. I don’t recall that I’ve ever been on a modern battleship.”

NIGHT had fallen as the three men, each eminent in his own profession, boarded a small power boat off Atlantic Avenue, and were hurried away through slashing waters to the giant battleship in the outer harbor. There for an hour or more the little scientist pottered about the magnificent suite which had been occupied by Prince Otto Ludwig. He asked one or two casual questions of the guard; that was all, after which he retired to the admiral’s cabin to write a short note.

“If,” he remarked, as he addressed an envelope to

Hutchinson Hatch, "if the prince is alive we shall hear from him. If he is dead we will not." His eye chanced upon a glaring headline in a newspaper on the desk:

PRINCE OTTO LUDWIG DANGEROUSLY ILL.
Heir to Throne of Germania-Austria
Confined to Suite Aboard the Battleship
"Friedrich der Grosse."
No One Permitted to See Him.

The Thinking Machine glanced at Admiral Hausen-Aubier.

"Lies!" declared the rugged old sailor. "Every day for a week it has been the same. We are compelled to issue bulletins. *Ach, Gott!* He must be found!"

"Please have this note sent ashore and delivered immediately," the scientist requested. "Meanwhile, I haven't been in bed for three nights. If you'll give me a berth, I'll get some sleep. Wake me if necessary."

"You expect something to happen, then?"

"Certainly. I expect a wireless, but not for several hours—probably not until to-morrow afternoon."

"A wireless?" There was a flicker of hope in the admiral's eyes. "May— may I ask from whom?"

"From Crown Prince Otto Ludwig," said The Thinking Machine placidly. "I'm going to sleep. Good night."

Three hours later Admiral Hausen-Aubier in person aroused The Thinking Machine from the lethargy of oblivion which followed upon utter physical and mental exhaustion, and thrust a wireless message under his nose. It said simply:

*O.K.
Hatch.*

The Thinking Machine blinked at it, grunted, then turned over as if to go back to sleep. Struck with some new idea, however, he opened his eyes for an instant.

"Issue a special bulletin to the press," he directed drowsily, "to the effect that Prince Otto Ludwig's condition has taken a sudden turn for the better. He is expected to be up and around again in a few days."

The sentence ended in a light snore.

All that night Admiral Hausen-Aubier, haggard, vigilant, sat beside the wireless operator in his cabinet on the upper deck, waiting, waiting, he knew not for what. Darkness passed, the stars died, and pallid dawn found him there.

At nine o'clock he ordered coffee; at noon more coffee.

At four in the afternoon the thing he had been waiting for came—only three words:

Followed suggestion. Communicate.

"Very indistinct, sir," the operator reported. "An amateur sending."

The Thinking Machine, wide awake now, and below deck discussing high explosives with a gunner's mate, was summoned. Into the wireless cabinet with him came Baron Von Hartzfeldt. For an instant the three men studied in silence this portentous message from the void.

"Keep in touch with him," The Thinking Machine instructed the operator. "What's his range?"

"Hundred miles, sir."

"Strong or weak?"

"Weak, sir."

"Reduce the range."

"I did, sir, and lost him."

"Increase it."

With the receiver clamped to his ears, the operator thrust his range key forward, and listened.

"I lose him, sir," he reported.

"Very well. Set at one hundred." The scientist turned to Baron Von Hartzfeldt and Admiral Hausen-Aubier. "He is alive, and less than a hundred miles away," he explained hurriedly. Then to the operator: "Send as I dictate:

"Is— O— L— there?"

The instrument hissed as the message spanned the abyss of space; in the glass drum above, great crackling electric sparks leaped and roared fitfully, lighting the tense faces of the men in the cabinet. Came dead silence—painful silence—then the operator read the answer aloud:

"Yes."

"Mein Gott ich lobe!" One great exclamation of thanks, and Admiral Hausen-Aubier buried his face in his hands.

To Baron Von Hartzfeldt the whole thing was wizardry pure and simple. The Thinking Machine had summoned the lost out of the void. While a hundred trained men, keen-eyes, indefatigable, wary as ferrets, were searching for the crown prince, along comes this withered, white-faced little man of science, with his monstrous head and his feeble hands, and works a miracle under his very eyes! He listened, fascinated, as The Thinking Machine continued:

"Must— prove— identity— Hausen— Aubier— here— ask— O— L—give— word— or phrase— identify— him."

Suddenly The Thinking Machine whirled about to face the admiral. The answer should prove once for all whether the prince was alive or dead. Minutes passed. Finally—

"It's coming, sir, in German," the operator explained:

"Neujarstag— eine— cigarre."

"New Year's Day—a cigar!" Admiral Hausen-Aubier translated, in obvious bewilderment. Swiftly his face cleared. "I understand. He refers to an incident that he and I alone know. When a lad of twelve he tried to smoke a cigar, and it made him deathly ill. I saved him from—"

"Send," interrupted The Thinking Machine:

"Satisfied— give— terms."

And the operator read:

"Five— million— dollars!"

"Five million dollars!" exclaimed the admiral and the diplomatist, in a breath. "Does he mean ransom?" Baron Von Hartzfeldt asked, aghast. "Five million dollars!"

"Five million dollars, yes," the scientist replied irritably. "We're not dealing with children. We're dealing with shrewd, daring, intelligent men who have played a big game for a big stake; and if you love your country and your king you'd better thank God it's only money they want. Suppose they had demanded a constitution, or even the abdication of your emperor? That might have meant revolution, war— anything." He stared at them an instant, then swung around to the operator. "Send," he commanded:

"We—accept—terms—"

"Why, man, you are mad!" interposed the diplomatist sharply. "It's preposterous!"

But The Thinking Machine said again evenly:

"We— accept— terms— specify— by— mail— place— time— manner— of— settlement."

The crashing of the mighty current in the glass drum ceased as the message was finished, and with strained attention the three men waited. Again a tense pause. At last the operator read:

"Also —assurance —no —prosecution."

And The Thinking Machine dictated:

"Accept."

"Wait a minute!" commanded Admiral Hausen-Aubier hotly. "Do you mean we are promising immunity to the men who abducted—"

"Certainly," replied the scientist. "They're not fools. If we don't promise it, all they have to do is break off communication and wait until such time as you will promise it." He shrugged his shoulders. "Or else stick a knife into your prince, and end the affair. Besides, prosecution means publicity."

With clenched hands, the admiral turned away; no answer seemed possible. Heedless of the things about him, Baron Von Hartzfeldt sat dumbly meditating upon the staggering ransom. It would take days to raise so vast a sum, if he could do it at all; and his private resources, together with those of Admiral Hausen-Aubier, would be drained to the last dollar. Even then it might be necessary to call upon the royal treasury. That would be a confession; out of it would come only dishonor and—death.

The Thinking Machine dictated:

"Accept— we— pledge— Hausen— Aubier's— word— of honor."

And the answer came:

"Satisfied— mailing— details— tonight— will— communicate— tomorrow— noon."

The attenuated thread which had linked them with the unknown was broken. Somewhere off through space they had talked with a man whom human ingenuity had failed to find—'twas another of the many miracles of modern science.

The morrow brought a typewritten letter incapable of misconstruction. It was the usual thing—an open field, some thirty miles out of the city, a lone tree in the center of the field, a suit case containing the money to be left there. The letter concluded with a paragraph after this fashion:

Your prince's life depends upon rigid adherence to these instructions. If there is any attempt to watch, or to identify us, or molest us, a pistol shot will end the affair; if the bag is there, and the money is in the bag, he will be aboard ship within five hours. Remember, we hold your pledge!

"Crude," commented The Thinking Machine. "I was led to expect better things of them."

"But the money, man, the money?" exclaimed Baron Von Hartzfeldt. "It will be absolutely impossible to get it unless—unless we call upon the royal treasury."

His face was haggard, his eyes inflamed by lack of sleep, and

deep furrows lined his usually placid brow. He leaned forward, and stared tensely into the pallid, wizened face of the scientist, who sat with head tilted back, his gaze turned steadily upward, his slender fingers precisely tip to tip.

"Five million dollars in gold," The Thinking Machine observed ambiguously, "would weight tons. It would take five hundred ten-thousand-dollar notes to make five million dollars, and I doubt if there are that many in existence. It would take five thousand thousand-dollar notes. Absurd! There will have to be two, perhaps three, of the bags."

"But don't you understand," Baron Von Hartzfeldt burst out violently, "that it's impossible to raise that sum? That there will be none of the bags? That some other scheme—"

"Oh, yes, there will be three of the bags," The Thinking Machine asserted mildly. "But, of course, there will be no money in them!"

Admiral Hasuen-Aubier and the diplomatist digested the statement in silence.

"But you have pledged my word of honor—" the old sailorman objected.

"Not to prosecute," the scientist pointed out.

"Absurd!" The ambassador came to his feet. "You have said we are not dealing with children. Why put the empty bags there? If they find they are empty, the prince's life will pay forfeit; if we attempt to surround them and capture them, the result will be the same; and, besides, we will have broken our pledge."

"I've never seen any one so fussy about their pledges as you gentlemen are," observed The Thinking Machine acridly. "Don't worry. I shall not break a pledge; I shall not attempt to surround them and capture them; I shall not, nor shall any one representing me, or any of us, for that matter, be within miles of that particular field after the bags are placed. They shall reach the field unmolested and unwatched."

"You are talking in riddles," declared the diplomatist

impatiently. "What do you mean?"

"I mean merely that the men who go to get the bags of money will wait right there until I come, even if it should happen to take two weeks," was the enigmatic response. "Also, I'll say they'll be glad to see me when I get there, and glad to restore Prince Otto Ludwig to his ship without one penny being paid. There will be no prosecution."

"But— but I don't understand," stammered the ambassador.

"I don't expect you to," said The Thinking Machine ungraciously. "Nor do I expect you to understand this."

Impatiently he spread a newspaper before the two men, and indicated an advertisement in black-faced type. It was on the first page, directly beneath a bulletin announcing a sudden change for the better in Prince Otto Ludwig's condition. The admiral read it aloud blankly:

"Wireless is only means communication can not be traced. Use it. Safe for all. Communicate with ship immediately. Would advise you erect private station."

That was all of it. It was addressed to no one, and signed by no one; if it had any meaning at all, it was merely as a curious method of advertising wireless telegraphy. Inquiringly at last the baron and the admiral raised their eyes to those of The Thinking Machine.

"The abductors of Prince Otto Ludwig had not communicated with the ship," he explained tersely, "because they could devise no way they considered absolutely safe. They knew the secret service would be at work. They didn't dare to telegraph in the usual way, nor send a messenger, nor even a letter. Our secret service is an able organization; they understood it was not to be trifled with. All these things considered, I didn't believe the abductors could hit upon a plan of communication which they considered safe. I inserted that advertisement in all the newspapers. It was a suggestion. They

understood, and followed it. You will remember their first communication."

Baron Von Hartzfeldt came to his feet suddenly, then sat down again. The miracle hadn't been a miracle, after all. It was merely common sense.

"Jeder verrückte könnte davon denken!" exclaimed the admiral bluntly.

"Quite right," assented The Thinking Machine. "Any fool could have thought of that— but no other fool did!"

Promptly at noon the wireless operator plucked this from the void:

"Is— letter— satisfactory?"

And the scientist dictated an answer:

"Yes— except— we— require— another— day— to— raise— money."

"Granted—"

"Impossible— put— all— money— one— bag— will— use— three."

"Satisfactory— remember— our— warning."

"You— have— our— pledge."

As the last word of the message went hurtling off into space, The Thinking Machine scrambled down the sea ladder and was rowed ashore. From his own home, half an hour later, he called Hutchinson Hatch on the telephone.

"I want," he said, "three large suit cases, one pair of extra-heavy rubber gloves, ten miles of electric wire well insulated, three Edison transformers, one fast automobile, permission to tap the Abington trolley wire, and two dozen ham sandwiches."

Hatch laughed. He was accustomed to the eccentricities of this little man of science.

"You shall have them," he promised.

"Bring everything to my house at midnight."

"Right!"

Looking back upon it later, Hatch decided he had never worked so hard in his life as he did that night; in addition to

which he had the satisfaction of not knowing just what he was doing. There were telephone poles to be climbed, and shallow trenches to be dug and immediately filled in so no trace of their existence remained, and miles of electric wire to be hauled through thickly weeded fields. Dawn was breaking when everything seemed to be done.

"This," remarked The Thinking Machine, "is where the ham sandwiches are useful."

They breakfasted upon them, after which The Thinking Machine went away, leaving Hatch to watch the small dial of some sort of an indicator attached to a wire. At noon the scientist returned, and, without a word, took the reporter's place at the dial. At thirty-three minutes past four the hand of the indicator suddenly shot around to one side, and the scientist arose.

"We have caught a fish," he said. "Come on!"

They were in the automobile, speeding along the highway, before Hatch spoke.

"What sort of fish?" he asked curiously.

"I don't know," was the reply. "A person, or persons, have picked up one or more of those suit cases to the bottom of which our electric wire is connected. He is unable to let go— he, or they, as the case may be. He will be unconscious when we reach him."

"Dead, you mean," said Hatch grimly. "The current from that trolley wire—"

"Unconscious," The Thinking Machine corrected. "The current is reduced. There is a transformer in each of the suit cases. The wiring extends up through the handles where the insulation is stripped off."

Three, four, nearly five, miles they went like the wind; then the motor car stopped with a jerk, and Hatch, taking advantage of his longer legs, galloped off through the open field toward the lone tree in the center. The thing he saw caused him to stop suddenly and raise his hands in horror. Upon the ground in front

of him was the convulsed figure of a young man, foreign-looking, distinguished even. His distorted face, livid now, was turned upward, and his hands were gripped to the suit case by the powerful electric current.

"Who is it?" queried the scientist.

"Crown Prince Otto Ludwig, of Germania-Austria!"

"What?" The question came violently, a single burst of amazement. And again: "What?" There was an expression on The Thinking Machine's face the like of which Hatch had never seen there before. "It's a possibility I had never considered. So he wanted the five million—" Suddenly his whole manner changed. "Let's get him to the motor."

With rubber-gloved hands, he cut the wire which held the crown prince prisoner, and the unconscious man fell back limply, as if dead. Five minutes later they had lifted him into the tonneau, and The Thinking Machine bent over him anxiously, with his hand on his wrist.

"Where to?" asked Hatch.

"Anywhere, and fast!" was the reply. "I must think."

Oblivious of the swaying and clatter of the huge car, The Thinking Machine sat silent for minute after minute as it sped on over the smooth road. Finally he seemed satisfied. He leaned forward, and touched Hatch on the shoulder.

"It's all right," he said. "We'll go aboard ship now."

Late that night the crown prince, himself again, but with badly burned hands, explained. He had been stupefied by chloroform, kidnaped, and lowered over the battleship rail in utter darkness. His impression was that he had been taken away in a small boat which had muffled oars. When he recovered, he found himself a prisoner in a deserted country house, with two men on guard. He didn't know the name of either.

Calmly enough, the three of them discussed the affair in all its aspects. They could devise no safe means of communicating with the ship until he suggested the wireless. He even aided in the erection of a station between two tall trees on a remote hill

somewhere. One of his guards, meanwhile, had to master the code. He had become fairly proficient when they saw the advertisement in the newspapers.

"But how is it you went to get the money?" the scientist questioned curiously.

"The men feared treachery," was the explanation. "They were willing to take my word of honor that I would get it and return with it, after which I was to be free. A prince of the royal house of Germania-Austria may not break his word of honor."

Tiny corrugations in the domelike brow of the scientist caused Hatch to stare at him expectantly; even as he looked they passed.

"Mr. Hatch," he said abruptly, "I have heard you refer to certain newspaper stories as 'peaches' and 'corkers' and what not. How would you class this?"

"This," said the reporter enthusiastically, "this is a bird!"

"It has only one defect," remarked The Thinking Machine. "It cannot be printed."

One eminent scientist who had achieved the seemingly impossible, and one disgusted newspaper reporter were rowed ashore at midnight.

"What do you think of it all, anyhow?" demanded Hatch suddenly.

"I have no opinion to express," declared The Thinking Machine crabbedly. "The prince has come to his own again; that is sufficient."

Some weeks later Professor Augustus S. F. X. Van Dusen was decorated with the Order of the Iron Eagle by Emperor Gustavus, of Germania-Austria. Reflectively he twisted the elaborate jeweled bauble in his slender fingers; then returned to his worktable under the great electric light. For a minute or more tiny corrugations appeared in his forehead; finally they passed as that strange mind of his became absorbed in the thing he was doing.

37: Mystery of the Fatal Cipher

FOR THE THIRD TIME Professor Augustus S. F. X. Van Dusen — so-called The Thinking Machine— read the letter. It was spread out in front of him on the table, and his blue eyes were narrowed to mere slits as he studied it through his heavy eyeglasses. The young woman who had placed the letter in his hands, Miss Elizabeth Devan, sat waiting patiently on the sofa in the little reception room of The Thinking Machine's house. Her blue eyes were opened wide and she stared as if fascinated at this man who had become so potent a factor in the solution of intangible mysteries.

Here is the letter:

To those Concerned:

Tired of it all I seek the end, and am content. Ambition now is dead; the grave yawns greedily at my feet, and with the labor of my own hands lost I greet death of my own will, by my own act.

To my son I leave all, and you who maligned me, you who discouraged me, you may read this and know I punish you thus. It's for him, my son, to forgive.

I dared in life and dare dead your everlasting anger, not alone that you didn't speak but that you cherished secret, and my ears are locked forever against you. My vault is my resting place.

On the brightest and dearest page of life I wrote (7) my love for him. Family ties, binding as the Bible itself, bade me give all to my son.

Good-bye. I die.

Pomeroy Stockton

"Under just what circumstances did this letter come into your possession, Miss Devan?" The Thinking Machine asked. "Tell me the full story; omit nothing."

The scientist sank back into his chair with his enormous

yellow head pillowed comfortably against the cushion and his long, steady fingers pressed tip to tip. He didn't even look at his pretty visitor. She had come to ask for information; he was willing to give it, because it offered another of those abstract problems which he always found interesting. In his own field—the sciences—his fame was worldwide. This concentration of a brain which had achieved so much on more material things was perhaps a sort of relaxation.

Miss Devan had a soft, soothing voice, and as she talked it was broken at times by what seemed to be a sob. Her face was flushed a little, and she emphasized her points by a quick clasp and unclasp of her daintily gloved hands.

"My father, or rather my adopted father, Pomeroy Stockton, was an inventor," she began. "We lived in a great, old-fashioned house in Dorchester. We have lived there since I was a child. When I was only five or six years old, I was left an orphan and was adopted by Mr. Stockton, then a man of forty years. I am now twenty-three. I was raised and cared for by Mr. Stockton, who always treated me as a daughter. His death, therefore, was a great blow to me.

"Mr. Stockton was a widower with only one child of his own, a son, John Stockton, who is now about thirty-one years old. He is a man of irreproachable character, and has always, since I first knew him, been religiously inclined. He is the junior partner in a great commercial company, Dutton & Stockton, leather men. I suppose he has an immense fortune, for he gives largely to charity, and is, too, the active head of a large Sunday school.

"Pomeroy Stockton, my adopted father, almost idolized this son, although there was in his manner toward him something akin to fear. Close work had made my father querulous and irritable. Yet I don't believe a better hearted man ever lived. He worked most of the time in a little shop, which he had installed in a large back room on the ground floor of the house. He always worked with the door locked. There were furnaces, moulds, and many things that I didn't know the use of."

"I know who he was," said The Thinking Machine. "He was working to re-discover the secret of hardened copper— a secret which was lost in Egypt. I knew Mr. Stockton very well by reputation. Go on."

"Whatever it was he worked on," Miss Devan resumed, "he guarded it very carefully. He would permit no one at all to enter the room. I have never seen more than a glimpse of what was in it. His son particularly I have seen barred out of the shop a dozen times and every time there was a quarrel to follow.

"Those were the conditions at the time Mr. Stockton first became ill, six or seven months ago. At that time he double-locked the doors of his shop, retired to his rooms on the second floor, and remained there in practical seclusion for two weeks or more. These rooms adjoined mine, and twice during that time I heard the son and the father talking loudly, as if quarreling. At the end of the two weeks, Mr. Stockton returned to work in the shop and shortly afterward the son, who had also lived in the house, took apartments in Beacon Street and removed his belongings from the house.

"From that time up to last Monday— this is Thursday— I never saw the son in the house. On Monday the father was at work as usual in the shop. He had previously told me that the work he was engaged in was practically ended and he expected a great fortune to result from it. About 5 o'clock in the afternoon on Monday the son came to the house. No one knows when he went out. It is a fact, however, that Father did not have dinner at the usual time, 6:30. I presumed he was at work, and did not take time for his dinner. I have known him to do this many times."

For a moment the girl was silent and seemed to be struggling with some deep grief which she could not control.

"And next morning?" asked The Thinking Machine gently.

"Next morning," the girl went on, "Father was found dead in the workshop. There were no marks on his body, nothing to indicate at first the manner of death. It was as if he had sat in his

chair beside one of the furnaces and had taken poison and died at once. A small bottle of what I presume to be prussic acid was smashed on the floor, almost beside his chair. We discovered him dead after we had rapped on the door several times and got no answer. Then Montgomery, our butler, smashed in the door, at my request. There we found Father.

"I immediately telephoned to the son, John Stockton, and he came to the house. The letter you now have was found in my father's pocket. It was just as you see it. Mr. Stockton seemed greatly agitated and started to destroy the letter. I induced him to give it to me, because instantly it occurred to me that there was something wrong about all of it. My father had talked too often to me about the future, what he intended to do and his plans for me. There may not be anything wrong. The letter may be just what it purports to be. I hope it is— oh— I hope it is. Yet everything considered—"

"Was there an autopsy?" asked The Thinking Machine.

"No. John Stockton's actions seemed to be directed against any investigation. He told me he thought he could do certain things which would prevent the matter coming to the attention of the police. My father was buried on a death certificate issued by a Dr. Benton, who has been a friend of John Stockton since their college days. In that way the appearance of suicide or anything else was covered up completely.

"Both before and after the funeral John Stockton made me promise to keep this letter hidden or else destroy it. In order to put an end to this I told him I had destroyed the letter. This attitude on his part, the more I thought of it, seemed to confirm my original idea that it had not been suicide. Night after night I thought of this, and finally decided to come to you rather than to the police. I feel that there is some dark mystery behind it all. If you can help me now—"

"Yes, yes," broke in The Thinking Machine. "Where was the key to the workshop? In Pomeroy's pocket? In his room? In the door?"

"Really, I don't know," said Miss Devan. "It hadn't occurred to me."

"Did Mr. Stockton leave a will?"

"Yes, it is with his lawyer, a Mr. Sloane."

"Has it been read? Do you know what is in it?"

"It is to be read in a day or so. Judging from the second paragraph of the letter, I presume he left everything to his son."

For the fourth time The Thinking Machine read the letter. At its end he again looked up at Miss Devan.

"Just what is your interpretation of this letter from one end to the other?" he asked.

"Speaking from my knowledge of Mr. Stockton and the circumstances surrounding him," the girl explained, "I should say the letter means just what it says. I should imagine from the first paragraph that something he invented had been taken away from him, stolen perhaps. The second paragraph and the third, I should say, were intended as a rebuke to certain relatives— a brother and two distant cousins— who had always regarded him as a crank and took frequent occasion to tell him so. I don't know a great deal of the history of that other branch of the family. The last two paragraphs explain themselves except—"

"Except the figure seven," interrupted the scientist. "Do you have any idea whatever as to the meaning of that?"

The girl took the letter and studied it closely for a moment.

"Not the slightest," she said. "It does not seem to be connected with anything else in the letter."

"Do you think it possible, Miss Devan, that this letter was written under coercion?"

"I do," said the girl quickly, and her face flamed. "That's just what I do think. From the first I have imagined some ghastly, horrible mystery back of it all."

"Or, perhaps Pomeroy Stockton never saw this letter at all," mused The Thinking Machine. "It may be a forgery?"

"Forgery!" gasped the girl. "Then John Stockton—"

"Whatever it is, forged or genuine," The Thinking Machine

went on quietly, "it is a most extraordinary document. It might have been written by a poet. It states things in such a roundabout way. It is not directly to the point, as a practical man would have written."

There was silence for several minutes and the girl sat leaning forward on the table, staring into the inscrutable eyes of the scientist.

"Perhaps, perhaps," she said, "there is a cipher of some sort in it?"

"That is precisely correct," said The Thinking Machine emphatically. "*There is a cipher in it, and a very ingenious one.*"

IT WAS twenty-four hours later that The Thinking Machine sent for Hutchinson Hatch, reporter, and talked over the matter with him. He had always found Hatch a discreet, resourceful individual, who was willing to aid in any way in his power.

Hatch read the letter, which The Thinking Machine had said contained a cipher, and then the circumstances as related by Miss Devan were retold to the reporter.

"Do you think it is a cipher?" asked Hatch in conclusion.

"It is a cipher," replied The Thinking Machine. "If what Miss Devan has said is correct, John Stockton cannot have said anything about the affair. I want you to go and talk to him, find out all about him and what division of the property is made by the will. Does this will give everything to the son?"

"Also find out what personal enmity there is between John Stockton and Miss Devan, and what was the cause of it. Was there a man in it? If so, who? When you have done all this, go to the house in Dorchester and bring me the family Bible, if there is one there. It's probably a big book. If it is not there, let me know immediately by 'phone. Miss Devan will, I suppose, give it to you, if she has it."

With these instructions Hatch went away. Half an hour later he was in the private office of John Stockton at the latter's place of business. Mr. Stockton was a man of long visage, rather

angular and clerical in appearance. There was a smug satisfaction about the man that Hatch didn't quite approve of, and yet it was a trait which found expression only in a soft voice and small acts of needless courtesy.

A deprecatory look passed over Stockton's face when Hatch asked the first question, which bore on his relationship with Pomeroy Stockton.

"I had hoped that this matter would not come to the attention of the press," said Stockton in an oily, gentle tone. "It is something which can only bring disgrace upon my poor father's memory, and his has been a name associated with distinct achievements in the progress of the world. However, if necessary, I will state my knowledge of the affair, and invite the investigation which, frankly, I will say, I tried to stop."

"How much was your father's estate?" asked Hatch.

"Something more than a million," was the reply. "He made most of it through a device for coupling cars. This is now in use on practically all the railroads."

"And the division of this property by will?" asked Hatch.

"I haven't seen the will, but I understand that he left practically everything to me, settling an annuity and the home in Dorchester on Miss Devan, whom he had always regarded as a daughter."

"That would give you then, say, two-thirds or three-quarters of the estate."

"Something like that, possibly \$800,000."

"Where is this will now?"

"I understand in the hands of my father's attorney, Mr. Sloane."

"When is it to be read?"

"It was to have been read today, but there has been some delay about it. The attorney postponed it for a few days."

"What, Mr. Stockton, was the purpose in making it appear that your father died naturally, when obviously he committed suicide and there is even a suggestion of something else?"

demanded Hatch.

John Stockton sat up straight in his chair with a startled expression in his eyes. He had been rubbing his hands together complacently; now he stopped and stared at the reporter.

"Something else?" he asked. "Pray what else?"

Hatch shrugged his shoulders, but in his eyes there lay almost an accusation.

"Did any motive ever appear for your father's suicide?"

"I know of none," Stockton replied. "Yet, admitting that this is suicide, without a motive, it seems that the only fault I have committed is that I had a friend report it otherwise and avoided a police inquiry."

"It's just that. Why did you do it?"

"Naturally to save the family name from disgrace. But this something else you spoke of? Do you mean that anyone else thinks that anything other than suicide or natural death is possible?"

As he asked the question there came some subtle change over his face. He leaned forward toward the reporter. All trace of the sanctimonious smirk about the thin-lipped mouth had gone now.

"Miss Devan has produced the letter found on your father at death and has said—" began the reporter.

"Elizabeth! Miss Devan!" exclaimed John Stockton. He arose suddenly, paced several times across the room, then stopped in front of the reporter. "She gave me her word of honor that she would not make the existence of that letter known."

"But she has made it public," said Hatch. "And further she intimates that your father's death was not even what it appeared to be, suicide."

"She's crazy, man, crazy," said Stockton in deep agitation. "Who could have killed my father? What motive could there have been?"

There was a grim twitching of Hatch's lips.

"Was Miss Devan legally adopted by your father?" he asked,

irrelevantly.

"Yes."

"In that event, disregarding other relatives, doesn't it seem strange even to you that he gives three-quarters of the estate to you— you have a fortune already— and only a small part to Miss Devan, who has nothing?"

"That's my father's business."

There was a pause. Stockton was still pacing back and forth.

Finally he sank down in his chair at the desk, and sat for a moment looking at the reporter.

"Is that all?" he asked.

"I should like to know, if you don't mind telling me, what direct cause there is for ill feeling between Miss Devan and you?"

"There is no ill feeling. We merely never got along well together. My father and I have had several arguments about her for reasons which it is not necessary to go into."

"Did you have such an argument on the night before your father was found dead?"

"I believe there was something said about her."

"What time did you leave the shop that night?"

"About 10 o'clock."

"And you had been in the room with your father since afternoon, had you not?"

"Yes."

"No dinner?"

"No."

"How did you come to neglect that?"

"My father was explaining a recent invention he had perfected, which I was to put on the market."

"I suppose the possibility of suicide or his death in any way had not occurred to you?"

"No, not at all. We were making elaborate plans for the future."

Possibly it was some prejudice against the man's appearance

which made Hatch so dissatisfied with the result of the interview. He felt that he had gained nothing, yet Stockton had been absolutely frank, as it seemed. There was one last question.

"Have you any recollection of a large family Bible in your father's house?" he asked.

"I have seen it several times," Stockton said.

"Is it still there?"

"So far as I know, yes."

That was the end of the interview, and Hatch went straight to the house in Dorchester to see Miss Devan. There, in accordance with instructions from The Thinking Machine, he asked for the family Bible.

"There was one here the other day," said Miss Devan, "but it has disappeared."

"Since your father's death?" asked Hatch.

"Yes, the next day."

"Have you any idea who took it?"

"Not unless— unless—"

"John Stockton! Why did he take it?" blurted Hatch.

There was a little resigned movement of the girl's hands, a movement which said, "I don't know."

"He told me, too," said Hatch indignantly, "that he thought the Bible was still here."

The girl drew close to the reporter and laid one white hand on his sleeve. She looked up into his eyes and tears stood in her own. Her lips trembled.

"John Stockton has that book," she said. "He took it away from here the day after my father died, and he did it for a purpose. What, I don't know."

"Are you absolutely positive he has it?" asked Hatch

"I saw it in his room, where he had hidden it," replied the girl.

HATCH laid the results of the interviews before the scientist

at the Beacon Hill home. The Thinking Machine listened without comment up to that point where Miss Devan had said she knew the family Bible to be in the son's possession.

"If Miss Devan and Stockton do not get along well together, why should she visit Stockton's place at all?" demanded The Thinking Machine.

"I don't know," Hatch replied, "except that she thinks he must have had some connection with her father's death, and is investigating on her own account. What has this Bible to do with it anyway?"

"It may have a great deal to do with it," said The Thinking Machine enigmatically. "Now, the thing to do is to find out if the girl told the truth and if the Bible is in Stockton's apartment. Now, Mr. Hatch, I leave that to you. I would like to see that Bible. If you can bring it to me, well and good. If you can't bring it, look at and study the seventh page for any pencil marks in the text, anything whatever. It might be even advisable, if you have the opportunity, to tear out that page and bring it to me. No harm will be done, and it can be returned in proper time."

Perplexed wrinkles were gathering on Hatch's forehead as he listened. What had page 7 of a Bible to do with what seemed to be a murder mystery? Who had said anything about a Bible, anyway? The letter left by Stockton mentioned a Bible, but that didn't seem to mean anything. Then Hatch remembered that same letter carried a figure seven in parentheses which had apparently nothing to do and no connection with any other part of the letter. Hatch's introspective study of the affair was interrupted by The Thinking Machine.

"I shall await your report here, Mr. Hatch. If it is what I expect, we shall go out late to-night on a little voyage of discovery. Meanwhile see that Bible and tell me what you find."

Hatch found the apartments of John Stockton on Beacon Street without any difficulty. In a manner best known to himself he entered and searched the place. When he came out there was a look of chagrin on his face as he hurried to the house of

The Thinking Machine nearby.

"Well?" asked the scientist.

"I saw the Bible," said Hatch.

"And page 7?"

"*Was torn out, missing, gone,*" replied the reporter.

"Ah," exclaimed the scientist. "I thought so. To-night we will make the little trip I spoke of. By the way, did you happen to notice if John Stockton had or used a fountain pen?"

"I didn't see one," said Hatch.

"Well, please see for me if any of his employees have ever noticed one. Then meet me here to-night at 10 o'clock."

Thus Hatch was dismissed. A little later he called casually on Stockton again. There, by inquiries, he established to his own satisfaction that Stockton did not own a fountain pen. Then with Stockton himself he took up the matter of the Bible again.

"I understand you to say, Mr. Stockton," he began in his smoothest tone, "that you knew of the existence of a family Bible, but you did not know if it was still at the Dorchester place."

"That's correct," said Stockton.

"How is it then," Hatch resumed, "that that identical Bible is now at your apartments, carefully hidden in a box under a sofa?"

Mr. Stockton seemed to be amazed. He arose suddenly and leaned over toward the reporter with hands clenched. There was a glitter of what might have been anger in his eyes.

"What do you know about this? What are you talking about?" he demanded.

"I mean that you had said you did not know where this book was, and meanwhile have it hidden. Why?"

"Have you seen the Bible in my rooms?" asked Stockton.

"I have," said the reporter coolly.

Now a new determination came into the face of the merchant. The oiliness of his manner was gone, the sanctimonious smirk had been obliterated, the thin lips closed

into a straight, rigid line.

"I shall have nothing further to say," he declared almost fiercely.

"Will you tell me why you tore out the seventh page of the Bible?" asked Hatch.

Stockton stared at him dully, as if dazed for a moment. All the color left his face. There came a startling pallor instead. When next he spoke, his voice was tense and strained.

"Is— is— the seventh page missing?"

"Yes," Hatch replied. "Where is it?"

"I'll have nothing further to say under any circumstances. That's all."

With not the slightest idea of what it might mean or what bearing it had on the matter, Hatch had brought out statements which were wholly at variance with facts. Why was Stockton so affected by the statement that page seven was gone? Why had the Bible been taken from the Dorchester home? Why had it been so carefully hidden? How did Miss Devan know it was there?

These were only a few of the questions that were racing through the reporter's mind. He did not seem to be able to grasp anything tangible. If there were a cipher hidden in the letter, what was it? What bearing did it have on the case?

Seeking a possible answer to some of these questions, Hatch took a cab and was soon back at the Dorchester house. He was somewhat surprised to see The Thinking Machine standing on the stoop waiting to be admitted. The scientist took his presence as a matter of course.

"What did you find out about Stockton's fountain pen?" he asked.

"I satisfied myself that he had not owned a fountain pen, at least recently enough for the pen to have been used in writing that letter. I presume that's what inquiries in that direction mean."

The two men were admitted to the house and after a few

minutes Miss Devan entered. She understood when The Thinking Machine explained that they merely wished to see the shop in which Mr. Stockton had been found dead.

"And also if you have a sample of Mr. Stockton's handwriting," asked the scientist.

"It's rather peculiar," Miss Devan explained, "but I doubt if there is an authentic sample in existence large enough, that is, to be compared with that letter. He had a certain amount of correspondence, but this I did for him on the typewriter. Occasionally he would prepare an article for a scientific paper, but these were also dictated to me. He has been in the habit of doing so for years."

"This letter seems to be all there is?"

"Of course his signature appears to checks and in other places. I can produce some of those for you. I don't think, however, that there is the slightest doubt that he wrote this letter. It is his handwriting."

"I suppose he never used a fountain pen?" asked The Thinking Machine.

"Not that I know of," the girl replied. "I have one," and she took it out of a little gold fascinator she wore at her bosom.

The scientist pressed the point of the pen against his thumb nail, and a tiny drop of blue ink appeared. The letter was written in black. The Thinking Machine seemed satisfied.

"And now the shop," he suggested.

Miss Devan led the way through the long wide hall to the back of the building. There she opened a door, which showed signs of having been battered in, and admitted them. Then, at the request of The Thinking Machine, she rehearsed the story in full, showed him where Stockton had been found, where the prussic acid had been broken, and how the servant, Montgomery, had broken in the door at her request.

"Did you ever find the key to the door?"

"No. I can't imagine what became of it."

"Is this room precisely as it was when the body was found?"

That is, has anything been removed from it?"

"Nothing," replied the girl.

"Have the servants taken anything out? Did they have access to this room?"

"They have not been permitted to enter it at all. The body was removed and the fragments of the acid bottle were taken away, but nothing else."

"Have you ever known of pen and ink being in this room?"

"I hadn't thought of it."

"You haven't taken them out since the body was found, have you?"

"I— I— er— have not," the girl stammered.

Miss Devan left the room, and for an hour Hatch and The Thinking Machine conducted the search.

"Find a pen and ink," The Thinking Machine instructed.

They were not found.

AT MIDNIGHT, which was six hours later, The Thinking Machine and Hutchinson Hatch were groping through the cellar of the Dorchester house by the light of a small electric lamp which shot a straight beam aggressively through the murky, damp air. Finally the ray fell on a tiny door set in the solid wall of the cellar.

There was a slight exclamation from The Thinking Machine, and this was followed immediately by the sharp, unmistakable click of a revolver somewhere behind them in the dark.

"Down, quick," gasped Hatch, and with a sudden blow he dashed aside the electric light, extinguishing it. Simultaneously with this there came a revolver shot, and a bullet was buried in the wall behind Hatch's head.

THE REVERBERATION of the pistol shot was still ringing in Hatch's ears when he felt the hand of The Thinking Machine on his arm, and then through the utter blackness of the cellar came the irritable voice of the scientist:

"To your right, to your right," it said sharply.

Then, contrary to this advice Hatch felt the scientist drawing him to the left. In another moment there came a second shot, and by the flash Hatch could see that it was aimed at a point a dozen feet to the right of the point where they had been when the first shot was fired. The person with the revolver had heard the scientist and had been duped.

Firmly the scientist drew Hatch on until they were almost to the cellar steps. There, outlined against a dim light which came down the stairs, they could see a tall figure peering through the darkness toward a spot opposite where they stood. Hatch saw only one thing to do and did it. He leaped forward and landed on the back of the figure, bearing the man to the ground. An instant later his hand closed on the revolver and he wrested it away.

"All right," he sang out. "I've got it."

The electric light which he had dashed from the hand of The Thinking Machine gleamed again through the cellar and fell upon the face of John Stockton, helpless and gasping in the hands of the reporter.

"Well?" asked Stockton calmly. "Are you burglars or what?"

"Let's go upstairs to the light," suggested The Thinking Machine.

It was under these peculiar circumstances that the scientist came face to face for the first time with John Stockton. Hatch introduced the two men in a most matter-of-fact tone and restored to Stockton the revolver. This was suggested by a nod of the scientist's head. Stockton laid the revolver on a table.

"Why did you try to kill us?" asked The Thinking Machine.

"I presumed you were burglars," was the reply. "I heard the noise down stairs and came down to investigate."

"I thought you lived on Beacon Street," said the scientist.

"I do, but I came here to-night on a little business, which is all my own, and happened to hear you. What were you doing in the cellar?"

"How long have you been here?"

"Five or ten minutes."

"Have you a key to this house?"

"I have had one for many years. What is all this, anyway? How did you get in this house? What right had you here?"

"Is Miss Devan in the house to-night?" asked The Thinking Machine, entirely disregarding the other's questions.

"I don't know. I suppose so."

"You haven't seen her, of course?"

"Certainly not."

"And you came here secretly without her knowledge?"

Stockton shrugged his shoulders and was silent. The Thinking Machine raised himself on the chair on which he had been sitting and squinted steadily into Stockton's eyes. When he spoke it was to Hatch, but his gaze did not waver.

"Arouse the servants, find where Miss Devan's room is, and see if anything has happened to her," he directed.

"I think that will be unwise," broke in Stockton quickly.

"Why?"

"If I may put it on personal grounds," said Stockton, "I would ask as a favor that you do not make known my visit here, or your own for that matter, to Miss Devan."

There was a certain uneasiness in the man's attitude, a certain eagerness to keep things away from Miss Devan that spurred Hatch to instant action. He went out of the room hurriedly and ten minutes later Miss Devan, who had dressed quickly, came into the room with him. The servants stood outside in the hall, all curiosity. The closed door barred them from knowledge of what was happening.

There was a little dramatic pause as Miss Devan entered and Stockton arose from his seat. The Thinking Machine glanced from one to the other. He noted the pallor of the girl's face and the frank embarrassment of Stockton.

"What is it?" asked Miss Devan, and her voice trembled a little. "Why are you all here? What has happened?"

"Mr. Stockton came here to-night," The Thinking Machine

began quietly, "to remove the contents from the locked vault in the cellar. He came without your knowledge and found us ahead of him. Mr. Hatch and myself are here in the course of our inquiry into the matter which you placed in my hands. We also came without your knowledge. I considered this best. Mr. Stockton was very anxious that his visit should be kept from you. Have you anything to say now?"

The girl turned on Stockton with magnificent scorn. Accusation was in her very attitude. Her small hand was pointed directly at Stockton and into his face there came a strange emotion, which he struggled to repress.

"Murderer! Thief!" the girl almost hissed.

"Do you know why he came?" asked The Thinking Machine.

"He came to rob the vault, as you said," said the girl, fiercely. "It was because my father would not give him the secret of his last invention that this man killed him. How he compelled him to write that letter I don't know."

"Elizabeth, for God's sake what are you saying?" asked Stockton with ashen face.

"His greed is so great that he wanted *all* of my father's estate," the girl went on impetuously. "He was not content that I should get even a small part of it."

"Elizabeth, Elizabeth!" said Stockton, as he leaned forward with his head in his hands.

"What do you know about this secret vault?" asked the scientist.

"I— I— have always thought there was a secret vault in the cellar," the girl explained. "I may say I know there was one because those things my father took the greatest care of were always disposed of by him somewhere in the house. I can imagine no other place than the cellar."

There was a long pause. The girl stood rigid, staring down at the bowed figure of Stockton with not a gleam of pity in her face. Hatch caught the expression and it occurred to him for the first time that Miss Devan was vindictive. He was more

convinced than ever that there had been some long-standing feud between these two. The Thinking Machine broke the long silence.

"Do you happen to know, Miss Devan, that page seven of the Bible which you found hidden in Mr. Stockton's place is missing?"

"I didn't notice," said the girl.

Stockton had arisen with the words and now stood with white face and listening intently.

"Did you ever happen to see a page seven in that Bible?" the scientist asked.

"I don't recall."

"What were you doing in my rooms?" demanded Stockton of the girl.

"Why did you tear out page seven?" asked The Thinking Machine.

Stockton thought the question was addressed to him and turned to answer. Then he saw it was unmistakably a question to Miss Devan and turned again to her.

"I didn't tear it out," exclaimed Miss Devan. "I never saw it. I don't know what you mean."

The Thinking Machine made an impatient gesture with his hands; his next question was to Stockton.

"Have you a sample of your father's handwriting?"

"Several," said Stockton. "Here are three or four letters from him."

Miss Devan gasped a little as if startled and Stockton produced the letters and handed them to The Thinking Machine. The latter glanced over two of them.

"I thought, Miss Devan, you said your father always dictated his letters to you?"

"I did say so," said the girl. "I didn't know of the existence of these."

"May I have these?" asked The Thinking Machine.

"Yes. They are of no consequence."

"Now let's see what is in the secret vault," the scientist went on.

He arose and led the way again into the cellar, lighting his path with the electric bulb. Stockton followed immediately behind, then came Miss Devan, her white dressing gown trailing mystically in the dim light, and last came Hatch. The Thinking Machine went straight to that spot where he and Hatch had been when Stockton had fired at them. Again the rays of the light revealed the tiny door set into the wall of the cellar. The door opened readily at his touch; the small vault was empty.

Intent on his examination of this, The Thinking Machine was oblivious for a moment to what was happening. Suddenly there came again a pistol shot, followed instantly by a woman's scream.

"My God, he's killed himself. He's killed himself."

It was Miss Devan's voice.

WHEN THE Thinking Machine flashed his light back into the gloom of the cellar, he saw Miss Devan and Hatch leaning over the prostrate figure of John Stockton. The latter's face was perfectly white save just at the edge of the hair, where there was a trickle of red. In his right hand he clasped a revolver.

"Dear me! Dear me!" exclaimed the scientist. "What is it?"

"Stockton shot himself," said Hatch, and there was excitement in his tone.

On his knees the scientist made a hurried examination of the wounded man, then suddenly— it may have been inadvertently — he flashed the light in the face of Miss Devan.

"Where were you?" he demanded quickly.

"Just behind him," said the girl. "Will he die? Is it fatal?"

"Hopeless," said the scientist. "Let's get him upstairs."

The unconscious man was lifted and with Hatch leading was again taken to the room which they had left only a few minutes before. Hatch stood by helplessly while The Thinking Machine, in his capacity of physician, made a more minute examination of

the wound. The bullet mark just above the right temple was almost bloodless; around it there were the unmistakeable marks of burned powder.

"Help me just a moment, Miss Devan," requested The Thinking Machine, as he bound an improvised handkerchief bandage about the head. Miss Devan tied the final knots of the bandage and The Thinking Machine studied her hands closely as she did so. When the work was completed he turned to her in a most matter of fact way.

"*Why did you shoot him?*" he asked.

"I— I—" stammered the girl, "I didn't shoot him, he shot himself."

"How come those powder marks on your right hand?"

Miss Devan glanced down at her right hand, and the color which had been in her face faded as if by magic. There was fear, now, in her manner.

"I— I don't know," she stammered. "Surely you don't think that I—"

"Mr. Hatch, 'phone at once for an ambulance and then see if it is possible to get Detective Mallory here immediately. I shall give Miss Devan into custody on the charge of shooting this man."

The girl stared at him dully for a moment and then dropped back into a chair with dead white face and fear-distended eyes. Hatch went out, seeking a telephone, and for a time Miss Devan sat silent, as if dazed. Finally, with an effort, she aroused herself and facing The Thinking Machine defiantly, burst out:

"I didn't shoot him. I didn't, I didn't. He did it himself."

The long, slender fingers of The Thinking Machine closed on the revolver and gently removed it from the hand of the wounded man.

"Ah, I was mistaken," he said suddenly, "he was not as badly wounded as I thought. See! He is reviving."

"Reviving," exclaimed Miss Devan. "Won't he die, then?"

"Why?" asked The Thinking Machine sharply.

"It seems so pitiful, almost a confession of guilt," she hurriedly exclaimed. "Won't he die?"

Gradually the color was coming back into Stockton's face. The Thinking Machine bending over him, with one hand on the heart, saw the eyelids quiver and then slowly the eyes opened. Almost immediately the strength of the heart beat grew perceptibly stronger. Stockton stared at him a moment, then wearily his eyelids drooped again.

"Why did Miss Devan shoot you?" The Thinking Machine demanded.

There was a pause and the eyes opened for the second time. Miss Devan stood within range of the glance, her hands outstretched entreatingly toward Stockton.

"Why did she shoot you?" repeated The Thinking Machine.

"She— did— not," said Stockton slowly. "I— did— it— myself."

For an instant there was a little wrinkle of perplexity on the brow of The Thinking Machine and then it passed.

"Purposely?" he asked.

"I did it myself."

Again the eyes closed and Stockton seemed to be passing into unconsciousness. The Thinking Machine glanced up to find an infinite expression of relief on Miss Devan's face. His own manner changed; became almost abject, in fact, as he turned to her again.

"I beg your pardon," he said. "I made a mistake."

"Will he die?"

"No, that was another mistake. He will recover."

Within a few moments a City Hospital ambulance rattled up to the door and John Stockton was removed. It was with a feeling of pity that Hatch assisted Miss Devan, now almost in a fainting condition, to her room. The Thinking Machine had previously given her a slight stimulant. Detective Mallory had not answered the call by 'phone.

The Thinking Machine and Hatch returned to Boston. At the

Park Street subway they separated, after The Thinking Machine had given certain instructions. Hatch spent most of the following day carrying out these instructions. First he went to see Dr. Benton, the physician who issued the death certificate on which Pomeroy Stockton was buried. Dr. Benton was considerably alarmed when the reporter broached the subject of his visit. After a time he talked freely of the case.

"I have known John Stockton since we were in college together," he said, "and I believe him to be one of the few really good men I know. I can't believe otherwise. Singularly enough, he is also one of the few good men who has made his own fortune. There is nothing hypocritical about him.

"Immediately after his father was found dead, he 'phoned to me and I went out to the house in Dorchester. He explained then that it was apparent Pomeroy Stockton had committed suicide. He dreaded the disgrace that public knowledge would bring on an honored name, and asked me what could be done. I suggested the only thing I knew— that was the issuance of a death certificate specifying natural causes— heart disease, I said. This act was due entirely to my friendship for him.

"I examined the body and found a trace of prussic acid on Pomeroy's tongue. Beside the chair on which he sat a bottle of prussic acid had been broken. I made no autopsy, of course. Ethically I may have sinned, but I feel that no real harm has been done. Of course, now that you know the real facts my entire career is at stake."

"There is no question in your mind but what it was suicide?" asked Hatch.

"Not the slightest. Then, too, there was the letter, which was found in Pomeroy Stockton's pocket. I saw that and if there had been any doubt then it was removed. This letter, I think, was then in Miss Devan's possession. I presume it is still."

"Do you know anything about Miss Devan?"

"Nothing, except that she is an adopted daughter, who for some reason retained her own family name. Three or four years

ago she had a little love affair, to which John Stockton objected. I believe he was the cause of it being broken off. As a matter of fact, I think at one time he was himself in love with her and she refused to accept him as a suitor. Since that time there has been some slight friction, but I know nothing of this except in a general way from what he has said to me."

Then Hatch proceeded to carry out the other part of The Thinking Machine's instructions. This was to see the attorney in whose possession Pomeroy Stockton's will was supposed to be and to ask him why there had been a delay in the reading of the will.

Hatch found the attorney, Frederick Sloane, without difficulty. Without reservation Hatch laid all the circumstances as he knew them before Mr. Sloane. Then came the question of why the will had not been read. Mr. Sloane, too, was frank.

"It's because the will is not now in my possession," he said. "It has either been mislaid, lost, or possibly stolen. I did not care for the family to know this just now, and delayed the reading of the will while I made a search for it. Thus far I have found not a trace. I haven't even the remotest idea where it is."

"What does the will provide?" asked Hatch.

"It leaves the bulk of the estate to John Stockton, settles an annuity of \$5,000 a year on Miss Devan, gives her the Dorchester house, and specifically cuts off other relatives whom Pomeroy Stockton once accused of stealing an invention he made. The letter, found after Mr. Stockton's death—"

"You knew of that letter, too?" Hatch interrupted.

"Oh, yes, this letter confirms the will, except, in general terms, it also cuts off Miss Devan."

"Would it not be to the interest of the other immediate relatives of Stockton, those who were specifically cut off, to get possession of that will and destroy it?"

"Of course it might be, but there has been no communication between the two branches of the family for several years. That branch lives in the far West and I have taken

particular pains to ascertain that they could not have had anything to do with the disappearance of the will."

With these new facts in his possession, Hatch started to report to The Thinking Machine. He had to wait half an hour or so. At last the scientist came in.

"I've been attending an autopsy," he said.

"An autopsy? Whose?"

"On the body of Pomeroy Stockton."

"Why, I had thought he had been buried."

"No, only placed in a receiving vault. I had to call the attention of the Medical Examiner to the case in order to get permission to make an autopsy. We did it together."

"What did you find?" asked Hatch.

"What did *you* find?" asked The Thinking Machine, in turn.

Briefly Hatch told him of the interview with Dr. Benton and Mr. Sloane. The scientist listened without comment and at the end sat back in his big chair squinting at the ceiling.

"That seems to finish it," he said. "These are the questions which were presented: First, In what manner did Pomeroy Stockton die? Second, If not suicide, as appeared, what motive was there for anything else? Third, If there was a motive, to whom does it lead? Fourth, What was in the cipher letter? Now, Mr. Hatch, I think I may make all of it clear. There was a cipher in the letter—what may be described as a cipher in five, the figure five being the key to it.

"FIRST, Mr. Hatch," The Thinking Machine resumed, as he drew out and spread on a table the letter which had been originally placed in his hands by Miss Devan, "the question of whether there was a cipher in this letter was to be definitely decided.

"There are a thousand different kinds of ciphers. One of them, which we will call the arbitrary cipher, is excellently illustrated in Poe's story, 'The Gold Bug'. In that cipher, a figure or symbol is made to represent each letter of the alphabet.

“Then, there are book ciphers, which are, perhaps, the safest of all ciphers, because without a clue to the book from which words may be chosen and designated by numbers, no one can solve it.

“It would be useless for me to go into this matter at any length, so let us consider this particular letter as a cipher possibility. A careful study of the letter develops three possible starting points. The first of these is the general tone of the letter. It is not a direct, straight-away statement such as a man about to commit suicide would write unless he had a purpose—that is, a purpose beyond the mere apparent meaning of the letter itself. Therefore we will suppose there was another purpose hidden behind a cipher.

“The second starting point is that offered by the absence of one word. You will see that the word ‘in’ should appear between the word ‘cherished’ and ‘secret’. This, of course, may have been an oversight in writing, the sort of thing anyone might do. But further down we find the third starting point.

“This is the figure seven in parentheses. It apparently has no connection whatever with what precedes or follows. It could not have been an accident. Therefore what did it mean? Was it a crude outward indication of a hurriedly constructed cipher?

“I took the figure seven at first to be a sort of key to the entire letter, always presuming there was a cipher. I counted seven words down from that figure and found the word ‘binding’. Seven words from that down made the next word ‘give’. Together the two words seemed to mean something.

“I stopped there and started back. The seventh word up is ‘and’. The seventh word from ‘and’, still counting backward, seemed meaningless. I pursued that theory of seven all the way through the letter and found only a jumble of words. It was the same way counting seven letters. These letters meant nothing unless each letter was arbitrarily taken to represent another letter. This immediately led to intricacies. I believe always in exhausting simple possibilities first, so I started over again.

“Now what word nearest to the seven meant anything when taken together with it? Not ‘family’, not ‘Bible’, not ‘son’, as the vital words appear from the seven down. Going up from the seven, I did find a word which applied to it and meant something. That was the word ‘page’. I had immediately ‘page seven’. ‘Page’ was the fifth word up from the seven.

“What was the next fifth word, still going up? This was ‘on’. Then I had ‘on page seven’—connected words appearing in order, each being the fifth from the other. The fifth word down from seven I found was ‘family’; the next fifth word was ‘Bible’; thus, ‘on page seven family Bible’.

“It is unnecessary to go further into the study I made of the cipher. I worked upward from the seven, taking each fifth word until I had all the cipher words. I have underscored them here. Read the words underscored and you have the cipher.”

Hatch took the letter marked as follows:

To those Concerned:

Tired of it all I seek the end, and am content. Ambition is dead; the grave yawns greedily at my feet, and with the labor of my own hands lost I greet death of my own will, by my own act.

To my son I leave all, and you who maligned me, you who discouraged me, you may read this and know I punish you thus. It's for him, my son, to forgive.

I dared in life and dare dead your everlasting anger, not alone that you didn't speak, but that you cherished secret, and my ears are locked forever against you. My vault is my resting place.

On the brightest and dearest page of life I wrote (Z) my love for him. Family ties, binding as the Bible itself, bade me give all to my son.

Good-bye. I die.

Pomeroy Stockton

Slowly Hatch read this:

"I am dead at the hands of my son. You who read punish him. I dare not speak. Secret locked vault on page 7 family Bible."

"Well, by George!" exclaimed the reporter. It was a tribute to The Thinking Machine, as well as an expression of amazement at what he read.

"You see," explained The Thinking Machine, "if the word 'in' had appeared between 'cherished' and 'secret', as it would naturally have done, it would have lost the order of the cipher, therefore it was purposely left out."

"It's enough to send Stockton to the electric chair," said Hatch.

"It would be *if it were not a forgery*," said the scientist testily.

"A forgery," gasped Hatch. "Didn't Pomeroy Stockton write it?"

"No."

"Surely not John Stockton?"

"No."

"Well, who then?"

"Miss Devan."

"Miss Devan!" Hatch repeated in amazement. "Then, Miss Devan killed Pomeroy Stockton?"

"No, he died a natural death."

Hatch's head was whirling. A thousand questions demanded an immediate answer. He stared mouth agape at The Thinking Machine. All his ideas of the case were tumbling about him. Nothing remained.

"Briefly, here is what happened," said The Thinking Machine. "Pomeroy Stockton died a natural death of heart disease. Miss Devan found him dead, wrote this letter, put it in his pocket, put a drop of prussic acid on his tongue, smashed the bottle of acid, left the room, locked the door, and next day had it broken down.

"It was she who shot John Stockton. It was she who tore out page seven of that family Bible, and then hid the book in

Stockton's room. It was she who in some way got hold of the will. She either has it or destroyed it. It was she who took advantage of her aged benefactor's sudden death to further as weird and inhuman a plot against another as a woman can devise. There is nothing on God's earth as bad as a bad woman, and nothing as good as a good one. I think that has been said before."

"But as to this case," Hatch interrupted. "How? what? why?"

"I read the cipher within a few hours after I got the letter," replied The Thinking Machine. "Naturally I wanted to find out then who and what this son was.

"I had Miss Devan's story, of course— a story of disagreement between father and son, quarreling and all that. It was also a story which showed a certain underlying animosity despite Miss Devan's cleverness. She had so mingled fact with fiction that it was not altogether easy to weed out the truth, therefore I believed what I chose.

"Miss Devan's idea, as expressed to me, was that the letter was written under coercion. Men who are being murdered don't write cipher letters as intricate as that; and men who are committing suicide have no obvious reasons for writing such letters. The line 'I dare not speak' was silly. Pomeroy Stockton was not a prisoner. If he had feared a conspiracy to kill him why shouldn't he speak?

"All these things were in my mind when I asked you to see Stockton. I was particularly anxious to hear what he had to say as to the family Bible. And yet I may say I knew that page seven had been torn out of the book and was then in Miss Devan's possession.

"I may say, too, that I knew that the secret vault was empty. Whatever these two things contained, supposing she wrote the cipher, had been removed or she would not have called attention to them in this cipher. I had an idea that she might have written it from the mere fact that it was she who first called my attention to the possibility of a cipher.

"Assuming then that the cipher was a forgery, that she wrote it, that it directly accused John Stockton, that she brought it to me, I had fairly conclusive proof that if Pomery Stockton had been murdered she had had a hand in it. John Stockton's motive in trying to suppress the fact of a suicide, as he thought it, was perfectly clear. It was, as he said, to avoid disgrace. Such things are done frequently.

"From the moment you told him of the possibility of murder, he suspected Miss Devan. Why? Because, above all, she had the opportunity, because she wanted the bulk of the estate, because there was some animosity against John Stockton.

"This now proves to have been a broken-off love affair. John Stockton broke it off. He himself had loved Miss Devan. She had refused him. Later, when he broke off the love affair, she hated him.

"Her plan for revenge was almost diabolical. It was intended to give her full revenge and the estate at the same time. She hoped, *she knew*, that I would read that cipher. She planned that it would send John Stockton to the electric chair."

"Horrible!" commented Hatch with a little shudder.

"It was a fear that this plan might go wrong that induced her to try to kill Stockton by shooting him. The cellar was dark, but she forgot that ninety-nine revolvers out of a hundred leave slight powder stains on the hand of the person who fires them. Stockton said that she did not shoot him, because of that inexplicable loyalty which some men show to a woman they love or have loved.

"Stockton made his secret visit to the house that night to get what was in that vault without her knowledge. He knew of its existence. His father had probably told him. The thing that appeared on page seven of the family Bible was in all probability the copper hardening process he was perfecting. I should think it had been written there in invisible ink. John Stockton knew this was there. His father told him. If his father told it, Miss Devan probably overheard it. She knew it, too.

"Now the actual circumstances of the death. The girl must have had and used a key to the work room. After John Stockton left the house that Monday night she entered that room. She found his father dead of heart disease. The autopsy proved this.

"Then the whole scheme was clear to her. She forged that cipher letter—as Pomeroy Stockton's secretary she probably knew the handwriting better than anyone else in the world—placed it in his pocket, and the rest of it you know."

"But the Bible in John Stockton's room?" asked Hatch.

"Was placed there by Miss Devan," replied The Thinking Machine. "It was a part of the general scheme to hopelessly implicate Stockton. She is a clever woman. She showed that when she produced the fountain pen, having carefully filled it with blue instead of black ink."

"What was in the locked vault?"

"That I can only conjecture. It is not impossible that the inventor had only part of the formula he so closely guarded written on the Bible leaf and the other part of it in that vault, together with other valuable documents.

"I may add that the letters which John Stockton had were not forged. They were written without Miss Devan's knowledge. There was a vast difference in the handwriting of the cipher letter which she wrote and those others which the father wrote.

"Of course it is obvious that the missing will is now, or was, in Miss Devan's possession. How she got it, I don't know. With that out of the way and this cipher unravelled apparently proving the son's guilt, at least half, possibly all, of the estate would have gone to her."

Hatch lighted a cigarette thoughtfully and was silent for a moment.

"What will be the end of it all?" he asked. "Of course, I understand that John Stockton will recover."

"The result will be that the world will lose a great scientific achievement—the secret of hardening copper, which Pomeroy Stockton had rediscovered. I think it safe to say that Miss Devan

has burned every scrap of this.”

“But what will become of her?”

“She knows nothing of this. I believe she will disappear before Stockton recovers. He wouldn’t prosecute anyway. Remember he loved her once.”

JOHN STOCKTON was convalescent two weeks later, when a nurse in the City Hospital placed an envelope in his hands. He opened it and a little cloud of ashes filtered through his fingers onto the bed clothing. He sank back on his pillow, weeping.

38: Mystery of the Golden Dagger

“ALL ANIMALS have the same appetites and the same passions. The reasoning faculty is the one thing which lifts man above what we are pleased to call the lower animals. Logic is the essence of the reasoning faculty. Therefore logic is that power which enables the mind of man to reconstruct from one fact a series of incidents leading to a given result. One result may be as surely traced back to its causes as the specialist may reconstruct a skeleton from a fraction of bone.”

Thus clearly, pointedly Professor Augustus S. F. X. Van Dusen had once explained to Hutchinson Hatch, reporter, the analytical power by which he had solved some of the most perplexing mysteries that had ever come to the attention of either the police or the press. It was a text from which sermons might be preached. No one knew this better than Hatch.

Professor Van Dusen is the foremost logician of his time. His name has been honored at home and abroad until now it embraces as honorary initials nearly all those letters which had not been included in it in the first place. The Thinking Machine! This phrase applied once in a newspaper to the scientist had clung tenaciously. It was the name by which he was known to the world at large.

In a dozen ways he had proved his right to it. Hatch remembered vividly the scientist's mysterious disappearance from a prison cell once; then there had been the famous automobile mystery, and more lately the strange chain of circumstances whose history has been written as "The Scarlet Thread." This little text, as given above, was one afternoon, when Hatch had casually called on The Thinking Machine. It transpired that a few hours later he had returned to lay before the logician still another mystery.

On his return to his office Hatch had been dispatched in a rush on a murder story. In following up the threads of this he had learned every fact the police had, had written his story, and then presented himself at the Beacon Hill home of The Thinking Machine. It was then 11 o'clock at night. The Thinking Machine had received him, and the facts, in substance, were laid before him as follows:

A man who had given the name of Charles Wilkes called at the real estate office of Henry Holmes & Co., on Washington Street on October 14, just thirty-two days prior to the beginning of the story, as Hatch recited it. He was a man of possibly thirty years, stalwart, good-looking and clean-cut in appearance. There had been nothing about him to attract particular attention. He had said that he was eastern agent for a big manufacturing concern, and travelled a great deal.

"I want a six or seven room house in Cambridge," he had explained. "Something quiet, where I won't have too many neighbors. My wife is extremely nervous, and I want to get a couple of blocks from the street cars. If you have a house, say in the middle of a big lot somewhere in the outskirts of Cambridge, I think that will do."

"What price?" a clerk had asked.

"Anywhere from \$45 to \$60," he replied.

It just happened that Henry Holmes & Co. had such a house. An office man went with Mr. Wilkes to see it. Mr. Wilkes was pleased and paid the first month's rent of \$60 to the man who

had accompanied him.

"I won't go back to the office with you," he said. "Everything is all right. I'll have my stuff moved out in a couple of days and let your collector come for next month's rent when it is due."

Mr. Wilkes was a very pleasant man; the clerk had found him so and was gratified at the transaction, which gave his firm such a desirable tenant. He did not ask for Mr. Wilkes' address, nor did he think to ask any questions as to where the household goods were at the moment. In the light of subsequent events this lack of caution temporarily hid, at least for a time, it seemed, the key which would have solved a mystery.

The month passed and in the office of Holmes & Co. the matter had been forgotten until the rent came due. Then a collector, Willard Clements, the regular Cambridge collector for the firm went to the Cambridge house. He found the front door locked. The shutters were still over the windows. There was no indication that anyone at all had either occupied the house or used it. That was an impression to be gathered by a casual outside inspection. Clements had gone around the house; the back door stood wide open.

Clements went inside the house and must have remained there for half an hour. When he came out his face was white, his lips quivered, and the madness of terror was in his eyes. He ran staggeringly around the house and down the walk to the street. A few minutes later he rushed into a police station and there poured out a babbling, incoherent story. The usually placid face of the officer in charge was overspread with surprise as he listened.

Three men were detailed to visit the house and investigate Clements' story. Two of these men went with Clements through the back door, which still stood open, and the third, Detective Fahey, began an examination of the premises. Entering through the back door, the kitchen lay to his left. There was nothing to show that it had been occupied for many months. A hurried glance satisfied him, and he passed into the main body of the

house. This consisted of a parlor, a dining room and a bedroom. Here, too, he found nothing. The dust lay thick over floors, mantels and window sills.

From the hall, stairs led to three sleeping rooms above. Under these stairs a short flight lead to the cellar. The door stood open, and a damp, chilly breath came up. Utter darkness lay below. The detective shrugged his shoulders and turned to go upstairs where the other men were.

He found them in the smallest of the three rooms, bending over a bed. Clements stood at the door, which had been broken in, still with the pallor of death on his face and his hands working nervously.

"Find anything?" asked the detective briskly.

"My God, no," gasped Clements. "I wouldn't go back in that room for a million dollars."

The detective laughed and passed in.

"What is it?" he asked.

"A girl," was the reply.

"What happened to her?"

"Stabbed," was the laconic answer.

The other two men stood aside and the detective looked down at the body. It was that of a girl possibly twenty or twenty-two years old. She had been pretty, but the hand of death had obliterated many traces of it now. Her hair, of a rich, ruddy gold, mercifully veiled somewhat the ravages of death; her hands lay outstretched on the white of the bed.

She was dressed for the street. Her hat still clung to her hair, fastened by a long, black-headed pin. Her clothing, of dark brown, was good but not rich. A muff lay beside her and her coat was open.

It was not necessary for Detective Fahey to ask the immediate cause of death. A stab wound in the breast showed that.

"Where's the knife?" he asked.

"Didn't find any."

"Any other wounds?"

"Can't tell until the medical examiner arrives. She's just as we found her."

"Here, O'Brien," instructed the detective, "run out and 'phone to Dr. Loyd and tell him to come up as fast as he can get here. It's probably only suicide."

One of the men went out, and the detective picked up and examined the muff. From it he drew out a small purse. He opened this to find a withered rose— nothing else. There was no money, no card, no key— nothing which might immediately throw light on the girl's identity.

After a while Dr. Loyd came. He remained in the room alone for ten minutes or so, while the policemen went carefully over the upper rooms of the house. When the doctor opened the door and stepped out he carried something in his hand.

"It's murder," he told the detective.

"How do you know?"

"There are two wounds in the back, where she could not possibly have inflicted them herself. And I found this beneath the body."

In his open hand lay a dagger— a dagger of gold. The handle was strangely and intricately fashioned and might, from its appearance, have been cut from a solid bar of gold. In the end blazed a single splendid gem— a diamond. It was probably of three or four karats and pure white. The steel blade was bright at the hilt but stained red.

"Great Scott!" exclaimed the detective as he examined it. "With a clue like that, the end is already in sight."

THIS WAS the story that Hutchinson Hatch told to The Thinking Machine. The scientist listened carefully, as he lay stretched out in a chair with his enormous yellow head resting easily against a cushion. He asked only three questions.

"How long had the girl been dead?"

"The medical examiner says it is impossible to tell within

more than a few days," Hatch replied. "He gave it as his opinion that it was a week or ten days."

"What was in the cellar?"

"I don't know. No one looked."

"Who broke in the door? Clements?"

"Yes."

"I shall go with you to-morrow," said The Thinking Machine. "I want to look at the dagger and also the cellar."

IT WAS 10 o'clock next day when Hutchinson Hatch and The Thinking Machine called on Dr. Loyd. The medical examiner willingly displayed the golden dagger, and in technical terms explained just what had caused the girl's death. Minus the medical phraseology his opinion was that the wound in the breast had been the first inflicted and that the dagger point had punctured the heart. One of the wounds in the back had also reached the same vital spot; the other wound was superficial.

The Thinking Machine viewed the body and agreed with the medical examiner. He had, meanwhile, carefully examined the dagger, handle and blade, and had a photograph of it made. Then, with Hatch, he proceeded to the Cambridge house.

"It isn't suicide, is it?" asked Hatch on the way.

"No," was the quick response. "The only question thus far in my mind, is whether or not the girl was killed in that house."

"Why was a man such a fool as to leave a dagger of that value where it would be found— or any dagger for that matter?" Hatch asked.

"A dozen reasons," replied the scientist. "A possible one is, that whoever killed her may have been frightened away before he could regain possession of the weapon. Remember it was found underneath her body. Presumably she fell backwards and covered the dagger. A slight noise— any one of a dozen things— might have caused the person who killed her to run away rather than try to get the weapon again. Against that of course is the value of the dagger. I know little about jewels, but knowing as

little as I do, I should say the value was in the thousands.”

“The very reason why it wouldn’t be left,” said Hatch.

“Quite true,” said the other. “Yet the *value of the dagger may have been the very reason it was left.*”

Hatch turned quickly and stared at The Thinking Machine with a question in his eyes.

“I mean,” The Thinking Machine explained, “that the dagger is nearly as good as the name and the address of its owner, because it can be traced immediately. Its owner would never have left it under any circumstances.”

Hatch was puzzled. He did not follow, as yet, the intricate reasoning of the scientist. It seemed that the one solid, substantial clue, as he regarded it, was to be eliminated without a hearing. The Thinking Machine went on:

“Suppose it had been someone’s purpose to kill this girl and, on the face of it, immediately direct attention to some other person as the criminal? In that event, what would have done it more effectively than to kill her with a stolen dagger belonging to some other man and leave it?”

“Oh,” exclaimed Hatch. “I think I see what you mean. The fact that a person owns this knife is not, then, to be taken against him?”

“On the contrary,” said The Thinking Machine sharply. “It’s almost a vindication, unless the person who killed her is mad.”

A few minutes later, they arrived at the house. It was a two-story frame structure, back thirty or forty feet from the street, in the centre of a small plot of ground. The nearest house was three or four hundred feet away. Hatch was somewhat surprised at the care with which The Thinking Machine examined the premises before he entered the house. Scarcely a foot of ground had not been critically gone over.

Then they entered through the back door. Here, in the kitchen, The Thinking Machine showed the same care in his examination. He squinted aggressively at the sink and casually turned the water on. Then he examined the rusty range. Thence

he went to the dining room, where there was the same minute examination. The parlor, hall, and the lower bedroom were examined, after which the two men went up stairs.

"In which room was the girl found?" asked The Thinking Machine.

"The back room," Hatch replied.

"Well, let's examine the other two first," and the scientist led the way to the front of the house. His examination seemed to be confined largely to the water arrangements. He examined each faucet in turn and turned the water on. He went through the same program in the bathroom.

This done, there remained only the room of death. It was precisely as the Medical Examiner had left it, except that the girl's body was gone. The sheets whereon she lay and the pillows were closely scrutinized. Then The Thinking Machine straightened up.

"Any running water in here?" he asked.

"I don't see any," Hatch replied.

"All right, now for the cellar."

The reporter could not even conjecture what The Thinking Machine expected to find in the cellar. It was low ceiling, damp and chilly. By the light of the electric bulb, which the scientist produced, they could see only the furnace, which stood rustily at about the centre. The Thinking Machine examined this for ashes, but found none. Then he wandered aimlessly about the place, taking it all in seemingly in one long, comprehensive squint. Finally he turned to Hatch.

"Let's go," he suggested.

Three-quarters of an hour later, the two men were again in the apartments on Beacon Hill. The scientist dropped into his accustomed place in the big chair and sat silent for a long time. Hatch waited impatiently.

"Has a picture of this dagger been printed yet?" asked The Thinking Machine at last.

"In every newspaper in Boston, to-day."

"Dear me, dear me," exclaimed the scientist. "It would have been perfectly easy to find the owner of the dagger if pictures of it hadn't been printed."

"Do you think it probable that its owner is the criminal?"

"No, unless, as I said, he was insane, but it would have been interesting to know how the knife passed out of his possession. Was it given away? If so, to whom? A thing of that value would never be given to anyone who was not near and dear to the one who gave it. It is not the kind of gift a man would make to a woman, but is rather a kind of gift a King might make to a loyal subject. It is Oriental in appearance and naturally suggests the Orient. But as I said, *the person who owned it* did not use it to kill the girl."

"Then what *did* happen to it?" asked Hatch, curiously.

"Probably it was stolen. Here is the problem: A girl whose name we don't know was murdered by a person we don't know. We do know that this dagger was used to kill her. Therefore find the man who owned the dagger originally and learn how it passed out of his hands. That may lead us directly to the man who rented the house. When we find the man who rented the house, we find possibly the man who stole the dagger and the man who may have killed or may know who killed the girl."

"That seems perfectly clear," Hatch remarked smilingly.

"That is, the nature of the problem itself is clear, but the solution is as far away as ever."

The Thinking Machine arose abruptly and passed into the adjoining room. After a while Hatch heard the telephone bell. It was half an hour or so before The Thinking Machine returned.

"The person who owns the knife will call to see me this afternoon at 3 o'clock," he announced.

Hatch half rose in his astonishment, then sank down again.

"Whoever it is will be arrested the moment the police learn of it," he said after a pause.

"On what charge?"

"Murder. It's a plain circumstantial case."

"If he is arrested," said the scientist, "there will be some international complications."

"Who is he?" asked Hatch.

"His name will appear in due time. Meanwhile find out for me if there has ever been a report to the police of any robbery, in which a dagger is mentioned in any way."

Wonderingly, Hatch went away to obey instructions. He found no trace of any such robbery for half a dozen years back. There were several entries on the police books, and of these he made a record.

At 1 o'clock that afternoon he was again in Cambridge working with the police and half a dozen reporters in an effort to get some light on the question of the girl's identity. Later he went to the real estate office of Henry Holmes & Co. seeking further light there. It was not forthcoming.

"Did this man, Wilkes, sign anything?" he asked; "a lease, or anything of that sort? A sample of his handwriting might be useful now."

"No," was the reply. "We did not consider a lease necessary."

Meanwhile the police had apparently exhausted every means of finding out who and what Charles Wilkes was. It was clear from the beginning, to them at least, that the name Wilkes was a fictitious one. There was no reason to suppose that if Wilkes rented the house with the deliberate intention of murder that he would give his real name. By the wildest stretch of the imagination they could find no motive for the murder. It was not any of the ordinary things. Yet it was deliberate. They regarded the golden dagger as the key to the entire mystery. There they stopped.

At 3 o'clock Hatch returned to the home of The Thinking Machine. He had hardly been ushered into the little reception room when the doorbell rang and the scientist in person appeared. Accompanying him was a stranger; dark, swarthy and with the coal black beard of the Orient.

Hatch was introduced to him as Ali Hassan. Then The Thinking Machine produced the photograph of the dagger.

"Is this the correct picture?" he asked.

The stranger examined it closely.

"It seems to be," he said at last.

"Is there another dagger like that in existence?"

"No."

"How did it come into your possession?"

"It was a gift to me from the Sultan of Turkey," was the reply.

GRAVELY Mr. Hassan sat down while The Thinking Machine resumed his seat in the big chair opposite. Hatch was leaning forward eagerly to catch every word. The story of the man who owned the wonderful golden dagger was one which the great public would naturally want to know.

"Now," began The Thinking Machine, "would you mind telling us a little of the history of the dagger?"

"It is not a story to be told to infidels," was the reply. "I mean, of course, unbelievers. I will answer any question that you see fit to ask if I can do so."

A little expression of perplexity crept into the squinting eyes of The Thinking Machine; then it passed as suddenly as it came.

"You are a Mohammedan?" he asked.

"Yes."

"Is there any religious significance attached to the dagger?"

"Yes, it is sacred. A gift from the Sultan— my imperial master — and blessed by the royal hand is always sacred to a subject. It may not be even seen by the eyes of an unbeliever."

Hatch straightened up a little, and The Thinking Machine readjusted himself in the big chair.

"You were educated at Oxford?" he asked irrelevantly.

"Yes. I left there in 1887."

"You did not embrace the Christian religion?"

"No. I am a Mohammedan, loyal to my master."

"Would you mind saying for what service the Sultan so honored you?"

"I cannot say that. It was a service to the crown at a time when I was secretary of the Turkish Embassy in England."

"Under what circumstances did this dagger leave your possession?" asked The Thinking Machine quietly.

"It has not left my possession," was the equally quiet reply. "It would be sacrilege if it did. Therefore I still have it— closely guarded."

Frankly, Hutchinson Hatch was amazed. His manner showed it clearly. The Thinking Machine was still leaning back in the chair staring upward.

"I understand then," he said after a little pause, "that the dagger, of which this is a photograph, is in your possession now?"

"It has not been out of my possession at any time since it was given to me," was the startling reply.

"Then how do you account for this photograph?"

"I don't account for it."

"But Dr. Loyd— the dagger— I had it in my hands," Hatch interposed in bewilderment.

"You are mistaken," replied the Turk quietly. "It is still in my possession."

"Will you produce it?" asked The Thinking Machine calmly.

"I will not," was the firm response. "I have explained that it is not to be seen by the eyes of unbelievers."

"If a charge of murder should be laid against you, would you produce it?" insisted The Thinking Machine.

"I would not."

"To avoid an arrest?"

"There is no danger of an arrest," was the still calm response. "I am connected with the Turkish delegation in Washington and I am responsible there. I am entitled to the protection of my own government. If there is any charge against me it must come that way."

There was a long silence. Hatch was bursting with questions, which were silenced by a slight gesture from The Thinking Machine. Under the peculiar circumstances the scientist realized that what Mr. Hassan had said was true. It is one of the idiosyncrasies of international law.

"You know, of course, that a woman has been murdered with that dagger, don't you?" asked the scientist.

"I have heard that a woman has been murdered."

"Do you attribute any magical properties to the weapon?"

"Oh, no."

"Just where is it at present? Would you produce it if your government ordered you to do so?"

"My government will not order me to do so."

Hatch was annoyed. All this was tommyrot. If Mr. Hassan had his dagger, then there were more than one of them in existence. Dr. Loyd had one; the reporter knew that. Whether it was a clever counterfeit he did not know; but the dagger used to kill the girl was certainly in possession of the medical examiner.

"If that dagger should ever by an chance pass out of your possession, Mr. Hassan, what would happen?" asked The Thinking Machine.

"I am sworn to protect it with my life. If it should pass out of my possession I should kill myself. It is customary and so understood in my country."

"Oh," exclaimed the scientist, suddenly. "How long will you be in Boston?"

"For several days, probably," was the reply. "Meanwhile, if I can be of any further service to you, I should do so gladly."

"How long have you been here?"

"About a week."

"Were you ever in Boston before?"

"Once, a couple of years ago, when I first came to this country."

Mr. Hassan arose and took up his hat. He had formally told Hatch and The Thinking Machine good day and was at the door

when he turned back.

"I understand," he said, "that this dagger is supposed now to be in the possession of Dr. Loyd, the Medical Examiner?"

"Yes," said the scientist.

Mr. Hassan went away. Hatch sat nursing his wrath a moment, and then came the explosion. It was inevitable; a righteous protest against an insult to his intelligence and that of the eminent scientist who had become interested in the case.

"Mr. Hassan is a liar, else there are two daggers," he burst out.

"Mr. Hassan is a gentleman of the Turkish legation, Mr. Hatch," said The Thinking Machine reprovingly. "Do you know Mr. Loyd very well?"

"Yes."

" 'Phone him immediately and ask him to have that dagger secretly removed to a safety deposit vault," instructed the scientist. "Then you had better go out and work with the police to see if they yet have any clue to the girl's identity. Mr. Hassan *will* produce the dagger if he has it."

The remainder of that day and a part of the next Hatch spent running down the small possibilities, trying to settle some of the minor questions, which were naturally aroused in his mind. There was a result— a very definite result— and when he again appeared before The Thinking Machine, he felt that he had accomplished something.

"It occurred to me," he explained, "that there was a possibility that this man Wilkes had communicated with or advertised for this girl that was dead. I searched the want columns of three newspapers. At last I found this."

He extended a small clipping to The Thinking Machine, who took it and studied it a moment. This clipping was an advertisement for an intelligent young woman as companion and gave the street and number of the house in Cambridge where the girl had been found.

"Very good," said The Thinking Machine, and he rubbed his

hands briskly together. "It looks, Mr. Hatch, as if it might be a long tedious work to establish the name of this girl. It may take weeks. I should meanwhile take that clipping and turn it over to the police, and let them make the search. I see it is dated October 19, which is four days from the time Wilkes rented the house. Yet the girl had been dead for not more than ten days. There is a lapse of time in there to be accounted for. Find out if this advertisement appeared more than once, and also get the original copy of it from the newspaper. It might be in Wilkes's handwriting. In that case it would be a substantial clue."

"Have you heard anything more about Hassan's dagger?" inquired the reporter.

"No, but *he will produce it*. Did you phone Dr. Loyd in reference to it?"

"I 'phoned yesterday, as you suggested, and was then informed that Dr. Loyd had left the city. I 'phoned twice this morning, but got no answer from the house. I presume he has not returned."

"No answer?" asked The Thinking Machine quickly. "No answer? Dear me, dear me!" He arose and paced back and forth across the room twice, then paused before the reporter. "That's bad, bad, bad!" he said.

"Why?" asked Hatch.

The Thinking Machine turned suddenly and entered the adjoining room. When he came out there was a new expression on his face—an expression which Hatch could not read.

"Dr. Loyd was found at 1 o'clock to-day in his home, bound and gagged," he explained shortly. "The only servant there was insensible from some drug. It was burglars. They ransacked the house from top to bottom."

"What—what does that mean?" asked Hatch, wonderingly.

Just then the door from the hall opened and Martha, the aged servant of The Thinking Machine, appeared.

"Mr. Hassan, sir," she said.

The Turk appeared in the door behind her, gravely

courteous, suave, and dignified as ever.

"Ah," explained The Thinking Machine. "You have brought the dagger?"

"I talked with the Turkish Minister in Washington by telephone and he explained the necessity of my producing it," said Mr. Hassan. "I have it here to convince you."

"I thought it was in Washington?" Hatch blurted out.

"Here it is," was the Turk's response. He produced a richly jeweled box. In it lay the golden dagger. The Thinking Machine lifted it. The blade was bright and without a trace of a stain. With a quick movement The Thinking Machine twisted the handle and part of it came off. A few drops of a pungent liquid ran out on the floor.

MR. HASSAN left Boston that night for Washington. He took the dagger with him. The Thinking Machine made no objection, and the very existence of the man was as yet unknown to the police.

"When it is necessary to produce that dagger," he explained to Hatch, "it can be done through regular channels, if Hassan is still alive. It seems very probable now that international law may have to take a hand in the case."

"Do you consider it possible that Hassan in person had any connection with the affair?" Hatch asked.

"Anything is possible," was the short reply. "By the way, Mr. Hatch, it might be interesting to know a little more about this real estate collector, Clements, who discovered the girl's body. He might have known about the house being unoccupied. There are still possibilities in every direction, but the real problem hangs on the golden dagger."

"In that event, it seems to come back to Hassan," said the reporter doggedly.

"I would advise you, Mr. Hatch, to settle the points I asked about the advertisement. Then see Dr. Loyd; ask him if he still has the dagger. If you get the original copy of the advertisement,

turn it over to the police. You need not mention Hassan to them as yet."

It was early that evening when Hatch saw Dr. Loyd.

"Did the burglars get the dagger?" he asked.

"I have nothing to say," was the reply.

"Have you the dagger now?"

"I have nothing to say."

"Did you turn it over to the District Attorney?"

"I have nothing to say."

The result of this was that Hatch went away firmly convinced that Dr. Loyd did not have the dagger; that the burglars, whoever they were, had taken it away; that they were probably in the employ of Hassan and robbed Loyd's house for the specific purpose of regaining possession of the dagger.

Later Hatch made an investigation of the circumstances attending the publication of the advertisement. It had appeared four times on alternate days. The original copy of it was found and given to him. It was the bold handwriting of a man. This he turned over to the police, with all information as to the advertisement.

Then began a long, minute search, which ultimately resulted in the discovery of the whereabouts of half a dozen girls reported missing. But the fact that they were found immediately removed them as possibilities. From the first, the search for Wilkes had been unceasing. It was generally assumed that the name Wilkes was fictitious.

On the morning of the second day Hatch appeared at his office weary, discouraged and disgusted. But weariness fled when the city editor excitedly approached him.

"They have Wilkes," he said. "They got him late last night in Worcester. The real estate clerk has positively identified him. He will be at police headquarters within an hour or so. Get the story."

"Who is he?" asked Hatch.

"I don't know. He doesn't deny his identity, and insists that

his name is Wilkes. He was found at a hotel registered as Charles Wingate."

The first editions of the afternoon papers flamed with the announcement of the capture of the supposed murderer. Meanwhile Hatch and the other reporters had heard Wilkes's story at second-hand. The police saw fit to put as much mystery about it as they could. Having heard this story Hatch immediately went with it to see The Thinking Machine.

"They've caught Wilkes," he explained. "His name is Wilkes, so far as anybody knows. He registered as Wingate because he was frightened. He knows the police of the entire country were looking for him."

"What about the house?" asked The Thinking Machine.

"He tells what appears to be a straight story. He says he rented the house for himself and wife intending to remain there for several months. He did not take a lease. On the day he was to move in his wife grew very ill—a more than usually serious attack of the nervous trouble with which she is afflicted. Then on the advice of physicians he took her away to Cuba rather than to start up housekeeping.

"He inserted the advertisement in the newspaper before he knew how serious this illness was. They remained in Cuba together for two or three weeks, and she is still there, he says. On the day after his return this murder affair came up and he considered it advisable, until it was all cleared up, to stay out of sight."

"What is his business?" asked The Thinking Machine.

"He is Eastern agent for a big cutlery concern in Cleveland. His headquarters are in Boston. He has only recently been appointed and is not known in Boston. Almost from the time of his appointment, he had been travelling. It was an oversight, he says, that he did not notify the real estate people of his determination not to occupy the house. He had rented it by the month anyway."

The Thinking Machine was silent. The blue eyes were turned

upward and the long, slender fingers pressed tip to tip. Hatch, eagerly watching his face, saw perplexed wrinkles at times, which immediately disappeared. It was the working of the man's brain.

"Does he know the girl?"

"He is confident that he does not. He never saw, so he says, anyone who answered the advertisement."

"Of course he would say that," snapped The Thinking Machine. "Has he seen the body?"

"He is to see it this afternoon."

"Have the police any idea of the identity of the girl?"

"I think not," said Hatch. "There are the usual boasts about being able to clear it up within a few hours, but it means nothing."

Again there was silence as the scientist sat thoughtfully squinting at the ceiling.

"Does she know Hassan?" he asked, finally.

"I don't know," Hatch replied. "Remember that no one knows Hassan but you and I, and I haven't seen this man Wilkes yet."

"Will you be able to see him?"

"I don't know. It depends upon the gracious goodness of the police."

"We will go and see him now," declared The Thinking Machine emphatically.

A few minutes later, they were ushered into the office of the chief of the State Police. There were mutual introductions, Hatch officiating. The chief had at various times heard of his distinguished visitor, but had never before met him. Instead he had regarded him as an amusing myth.

"Would it be possible for me to see Mr. Wilkes?" asked The Thinking Machine.

"No, not now," was the reply.

"I thought the purpose of this office was to aid justice," snapped the scientist.

"It is," said the chief, and a flush came to his face.

"Well, I know the man who owns the dagger with which the girl was killed," said the scientist emphatically. "I want to see if this is the man."

The chief arose from his desk in astonishment and stood leaning over it toward his visitors.

"You know— you know—" he began. "Who is it?"

"May I see Wilkes?" insisted the other.

"Well, under the circumstances, I suppose, perhaps—"

"Now," said The Thinking Machine.

The chief pressed a button. After a moment one of his men came in.

"Bring Wilkes in here," directed the police official.

The man went out and after a time returned with Wilkes, who had been undergoing the third degree in another room. The prisoner's face was white and every move indicated his tense nervous condition.

"Mr. Wilkes, when did the dagger pass out of your possession?" asked The Thinking Machine, suddenly, as he extended the photograph of the golden dagger.

"I have never seen such a dagger," was the reply, after a long, deliberate study of the picture.

"Did you not receive an order for a blade for it?" asked The Thinking Machine.

"No."

"Mr. Wilkes, I know possibly more of this affair than the police do as yet. You can supply those facts that I haven't. Now who— who— is the girl who was murdered with this dagger?"

What little color that had been in the prisoner's face was gone now, and he trembled violently. Suddenly he sank down in the chair, burying his face on his arms.

"I don't know, I don't know, I don't know," he sobbed.

Yet that afternoon, when Wilkes stood beside the body of the murdered girl he looked at her long and earnestly then with a wailing cry he lunged forward, half fainting.

"Alice, Alice!" he gasped.

WILKES, or Wingate, as he had been last known, told a story as to his knowledge of the dead girl, which was on its face straight-forward and to the point. In a little room adjoining that in which the body lay he had been revived with a stimulant, and, once himself again, he talked freely. The thing which impressed the police most was the detail which he gave; The Thinking Machine had nothing to say as to what he thought of this recital. He merely observed it without comment.

Briefly here is the story, denuded of extraneous verbiage:

The girl was Alice Gorham. There was no shadow of doubt about the identification. She was the daughter of a man who had been for a long time connected with the Steel Trust offices in Cleveland. Misfortune had finally come to her father and then in her last year at Vassar she had been compelled to return home. Shortly after that her father had died suddenly, leaving her nothing; her mother had died several years previously. She was an only child.

According to his story, Wilkes had been acquainted with her since her childhood. His father, too, had been in the Steel Trust at one time and had left it to take a partnership in the cutlery concern which he now represented. The girl's age, so far as Wilkes's story went, was about twenty-one years.

Since the death of her father, when she had been thrown upon her own resources, she had been employed as companion to an aged woman in Cleveland. There had been some disagreement between them, and the girl decided to come East. She had been in Boston only a few weeks at the time she was found dead.

"That's all I know about it," said Wilkes in conclusion. "Naturally, the shock was very great when I saw her in there dead. I knew that she had come to Boston. I knew, too, that she had disappeared from where she lived, for both my wife and myself, before we went to Cuba, had called and inquired for

her.”

“You have no idea where she was from the time she disappeared until the time she was found dead, which was at the most not more than fourteen days ago?” asked The Thinking Machine.

“None,” replied Wilkes.

“Do you know of any love affair— any man in the case?” insisted The Thinking Machine.

“No, I never heard of one.”

“Of course, you read the newspaper accounts of this affair. Did you, then, from the detailed description of the girl printed, associate her in any way with the girl who was dead?”

“I did, yes, but not directly. The thing which impressed me most in the newspaper accounts was the reiterated statement that the man who rented the house must have been the murderer. This placed it directly to me. Then frankly I got frightened and tried to hide my identity for the moment under another name. It was very foolish, of course, but the circumstances seemed to point so conclusively to me that— that I did what I did.”

“When did you last see Miss Gorham?”

“In Cleveland seven months ago.”

“That’s all,” said The Thinking Machine, and he arose as if to go.

“Now what do *you* know of this?” asked the State police chief.

“I shall call on you to-morrow and explain just what I know and how I learned it,” was the reply.

“Who is the man who owned that dagger?” the chief continued.

“You mean the dagger that was stolen from Dr. Loyd?” asked The Thinking Machine. There was a touch of irony in his tone.

“Who— how— what do you know about that?”

“Let’s go, Mr. Hatch,” said The Thinking Machine suddenly. “I’ll see you to-morrow, chief.”

Once outside, The Thinking Machine led the way toward the Scollay Square subway.

"Where to now?" asked Hatch.

"To the house in Cambridge," explained The Thinking Machine. "I want to look it over again. I have an idea I overlooked a few things."

"Do you think Wilkes killed Miss Gorham?" asked Hatch.

"I don't know."

"Do you think now that Hassan did it?"

"I don't know."

Further questioning seemed useless, and both men were silent until they stood inside the Cambridge house. Then again, The Thinking Machine went over the structure from cellar to attic, but more carefully, with more detail than even before. Particularly this was true as to the cellar. Not one square inch of the floor surface escaped his eyes. Once he picked up a small scrap of cloth— black cloth, and examined it. Later, on hands and knees, he studied the soft ground flooring in a remote corner. Hatch stood looking on curiously.

"See this?" The Thinking Machine asked.

Hatch looked by the light of the electric bulb and saw only a few indentations in the soft soil. It was as if something heavy and elaborately carved had been pressed down in the dirt.

"What is it?" he asked.

Without answering The Thinking Machine arose and together they went straight to the room of death upstairs. Here the scientist ruthlessly cut into the smooth wood of the bed. He handed the small chip he removed to the reporter.

"What does that look like?" he asked.

"Mahogany," Hatch replied.

"Good, very good. Now, Mr. Hatch, you go to Boston, see this young man, Willard Clements, the real estate collector. Don't be afraid to ask him questions. Ask him pointedly if he happens to be acquainted with a burglar. It will be an interesting experiment. Find out all you can about him and meet me at my

apartments at 8 o'clock to-night. I have a little further work to do here."

"Lord, did *he* do it?" asked Hatch.

"I don't know," was the reply. "It would be interesting to know what he knows."

Had Hatch not known the peculiar methods of The Thinking Machine, he would have been bewildered by these instructions. As it was, he was merely seeking in his own mind a possible connecting thread between Clements and the mystery. Disregarding Clements for the moment, he could only see Wilkes, who knew the girl, or Hassan, who owned the dagger, in the affair.

Once alone, The Thinking Machine did several things which would have sadly puzzled an outsider. From the back door he examined the ground and even stooped and stared at the grass. Slowly he walked along, half stooping, toward the back of the plot of ground. There he shook the picket fence, which barred his way. It was apparently a new fence, yet a whole panel of it fell. Outside was an alley.

From this point he went to the house of the nearest neighbor and asked many questions about strangers who might have been in the other yard. None had been seen. Finally, he asked the way and was directed to the nearest police station.

"Have many burglaries been reported in this neighborhood lately?" he asked, after he had introduced himself.

"Three of four. Why?"

"Have you heard of any furnished house, at present unoccupied, which has been robbed?"

"Yes, the old Essex estate— about four blocks from here."

"What was stolen, exactly?"

"We don't know. The owners of the house are in Europe now, and we have no means of learning just what is missing. We have caught the men who robbed it."

"What are their name, please?"

"One is called 'Reddy' Blake, the other gave the name of Johnson."

"Where were they caught?"

"In the house. They had a wagon and were trying to move out a heavy mahogany sideboard."

"When was this?"

"Oh, a week or so ago. They got three years each."

"No other similar cases?"

"No."

"Thank you," and The Thinking Machine went away. That night Hutchinson Hatch called on the scientist and found him with a telegram in his hands.

"Did you see Clements?" asked The Thinking Machine, "and did you ask him if he knew a burglar?"

"I did," said Hatch, smiling slightly. "He wanted to fight."

The Thinking Machine unfolded the telegram and handed it to the reporter.

"This might interest you," he said.

Hatch took the yellow slip and read the following:

"Ali Hassan committee suicide this morning."

"Why that's a confession," said the reporter.

THERE was a gathering of a half a dozen persons in the office of the Chief of Police on the morning of the following day. They were the chief, The Thinking Machine, Charles Wilkes, Detective Fahey, Willard Clements and Hutchinson Hatch. The summons to

Clements had been in the nature of a great surprise to that young man. First he had been indignant, but gradually this passed, and there came instead a cowering attitude.

Every one, even the chief, was waiting the pleasure of The Thinking Machine. Hatch, still firmly convinced that Hassan, the Turk, was the criminal, was almost as much surprised as Clements by his presence.

Detective Fahey sat silently by, chewing his cigar and with a slightly amused smile on his face; the chief didn't smile. He had felt the vital power of this diminutive man with the enormous yellow head.

"Now, Mr. Clements," The Thinking Machine began, and the young man started slightly, "I don't believe that you killed Miss Gorham. Perhaps the worst charge that can be laid to you is burglary, or, rather, illicit knowledge of burglary. Your friends, 'Reddy' Blake and this man Johnson have already partially confessed. Now, will you tell the rest of it?"

"Confessed what? What are you talking about?" demanded the young man.

"Never mind, then," said The Thinking Machine, impatiently. He turned to the chief. "Fortune has favored us a good deal in this case," he said. "Particularly is this true in the arrest of Mr. Wilkes. I may compliment you chief on the ability your men displayed in getting Mr. Wilkes."

The chief bowed gravely.

"But he is not the murderer."

The scientist went on:

"By telegraph and cable I have verified his story in full. You may have done so yourself. Here are the answers I received to the wires I sent. I think, perhaps, they will convince you. Meanwhile, you have the real murderer in Charlestown prison now. It is 'Reddy' Blake, or Johnson."

At the second mention of these two names every eye was again turned on Clements. A sudden change had come over his face. He was now frightened; the color was surging back into

Wilkes's countenance.

"Proofs, proofs," said the chief, shortly.

"It will be useless," continued The Thinking Machine, "to rehearse Mr. Wilkes's story. It is proven. Therefore, what remains? Let's begin with the dagger and see what it leads to.

"I saw this dagger. It is an extraordinary weapon. Its value must be in the thousands. On it I saw, cut into the handle, the crescent of Turkey, together with half a dozen symbols, religious and otherwise, of that empire. It was a simple matter, comparatively, to call up on the 'phone some one who knew of these things, preferably a Turk. There is a Turk in one of the oriental stores on Boylston Street.

"I talked to him and described the dagger in detail. He is an educated man, knows his country and its customs and was able to say that such a dagger could only have been what I had previously supposed it to have been— a gift from a prince or ruler to a loyal subject for duty well done. I asked if he knew of such a weapon being in this country. He said he did not, but that a certain Turkish gentleman, then in Boston, had once signally served his master, and there was a possibility that he had been rewarded by such a gift. What was his name? Ali Hassan.

"Mr. Hassan was stopping at the Hotel Teutonic. I wrote a note to him. He called and readily identified a photograph of the golden dagger as his property. Remember that this was a photograph of the dagger with which the girl was slain.

"He amazed me a little by stating that the dagger was then in his possession. At the same time he explained that it was a sacred object and not for the eyes of infidels. For a time this was puzzling. Then I asked what would be the result if, by any chance, the dagger should pass out of his possession. He replied that he would kill himself. That was an illuminating point. He had lied; he did not have the dagger. If any one else had known that he did not have it, it would have been his death. He saved his life thus far by lying. It has been done before. I may say, too, that the idea of a duplicate dagger was not tenable."

"If this man owns the dagger and admits it," interrupted the chief, "I will have him immediately arrested."

"There are two reasons why you can't do that," said The Thinking Machine, quietly. "The first is that Mr. Hassan was a secretary of the Turkish legation in Washington; the second, he is dead."

There was a pause while the chief and the remainder of the party absorbed this.

"Dead," exclaimed the chief. "How?"

"Suicide by poison," was the brief response. "Anyway, I had established the ownership of the dagger. I also learned that Hassan had been in Boston only five days at the time the body was found. The girl had been dead for a week or ten days—possibly ten days. Therefore, Hassan did not kill Miss Gorham. That was conclusive.

"Then came the question of how the dagger passed out of his possession. Obviously it was not a gift. Stolen? Probably. When? Mr. Hassan showed in a way that he had not been in Boston for two years. But burglars operate all over the country. Therefore, burglars. It is perfectly possible that the dagger was stolen some time in Washington by 'Reddy' Blake and his gang, and for some reason they kept it instead of selling it. No man, not even a 'fence,' would have tried to dispose of a four-carat diamond. In the second place, Mr. Hassan would not have dared to report the loss of the dagger to the police. Blake, of course, could not know this. He kept the weapon. The safest place for it was on his person."

The Thinking Machine lay back in his chair, squinting at the ceiling, while his listeners leaned forward eagerly. The chief was fascinated, amazed by the strange story. The scientist resumed:

"It was stated in the hearing of Mr. Hassan and also published that the dagger was in the possession of Medical Examiner Loyd. It is easy to see how employees of this man burglarized Loyd's home and recovered the weapon. Its possession meant life to Hassan. Immediately after this burglary

he returned to Washington. There he committed suicide, probably by order of his superiors. I had wired the facts, not intending to cause his death, of course, but to have the dagger produced here when necessary. That disposes, I think, of the ownership of the weapon, and places it in the hands of 'Reddy' Blake or his pals."

The Thinking Machine turned suddenly on Clements.

"As collector for Henry Holmes & Co. you know Cambridge well, I should imagine. You have opportunities, which fall to few men— legitimately— to know where rich hauls may be made. You were also in a position to know practically every vacant house in Cambridge. Knowing this you might know, too, the best vacant house for a rendezvous for thieves. In passing, you might have learned that the house rented by Mr. Wilkes had not been occupied. It is perfectly possible that you did not even know the house had been rented until the bill for rent was placed in your hands. These are possibilities; now here are facts.

"You went to that house to collect rent. The front door was locked and the shutters up. In the natural course of events you would have satisfied yourself that it was unoccupied. You might have shouted to attract someone's attention, but in the ordinary course of events you would not have gone upstairs to look further, unless you had asked something. You found something in a back room and probably behind a door that was closed. You broke open that door. Why did you go to that room? Why did you break down that door?

"Let's see. Suppose for a moment that you were one of the most valued members of a gang of burglars— valued because you appear the gentleman and can go places and learn things without attracting attention. Suppose this house was a hiding place for stolen goods. Suppose the girl, answering Mr. Wilkes's advertisement for a companion, should have gone to that house and found it locked. It is not improbable that she should have gone around the house, believing it to be occupied, to find someone.

“Suppose she had come upon a party of thieves. It would have been a natural consequence for them to fear a spy and attempt to get rid of her.

“What more possible than that they should have locked her up? She was at least four hundred feet from the nearest house, and forty, fifty or sixty feet from the street and behind thick walls. Her screams would not have been heard.

“There we have the girl a prisoner in the hands of the men who had the golden dagger. The murder may have followed at any time. It happened but a few days ago. Meanwhile the burglars had taken from their loot a bed and its furnishings, providing a place for the girl to sleep. You, Mr. Clements, knew that the girl had been a prisoner upstairs. That is why you went to that room. I will not say that you knew of the murder at that time. You discovered that. You were frightened at this hideous ending of an affair in which you had been interested. Perhaps you were a little angry, too. It may have been that the burglars had taken away the stolen stuff, sold it and left you out in the division. Is that right?”

Clements stared at him with glassy eyes, then suddenly leaned forward with his head in his hands, and sobbed bitterly. It was practically a confession.

“How did it come that you considered burglars in the first place?” asked the chief.

“I made two examinations of the house. The first was not thorough. I examined the faucets to see if the water was on, and if there was a possible trace of blood on them anywhere. It was not impossible that the murderer of Miss Gorham got blood on his hands and left a thumb or finger print when he washed it off. I found none. He was careful.

“On the second examination I looked particularly for a trace of burglars in the cellar. There I found, freshly pressed down in the soft soil, the imprint of what must have been a carved piano leg and beside it a large imprint indicating that a grand piano had been leaned against the wall. People don’t keep pianos in

the cellar. Therefore, if one were there, it was hidden. Naturally burglars. The bed was not handsome, but was of mahogany. Nobody moving out would leave a mahogany bed. Still burglars. There is no path leading from the back of the house to the back fence. Yet there is a straight line across the grass to a certain panel in that fence where people have walked frequently. That panel of the fence fell out when I shook it; there is no gate. Burglars, even at night, would not move their loot in at the front; it would be comparatively easy to bring in large objects, such as a piano, through the alley, tearing down a fence panel and then to the house. Therefore burglars.

"Now, burglars do not steal pianos and mahogany beds in a wagon from a house that is occupied. The police informed me that burglars— 'Reddy' Blake, among them— had been robbing an unoccupied furnished house. They could have stolen a piano or anything else. Therefore the chain is complete."

"Admitting that is all true," interrupted the chief, "how did you explain the fact that the man who killed Miss Gorham left the dagger? If he had been a burglar, as you say, wouldn't he have been the last man to leave a thing of that value?"

"All men are fools when they kill people," said The Thinking Machine. "They are frightened, half-witted, and do all kinds of inexplicable things. Suppose there had been a sudden violent noise in the house, made by one of his pals just at the moment the girl fell backward, covering the knife with her body. The murderer might have run, leaving it where it was. I don't state this as a fact, but as a strong probability. He might have intended to return for the knife, but if he had meanwhile been arrested, as Blake and Johnson were, this would have been impossible. I think that is all."

"Why is it that Mr. Wilkes did not see the stolen goods when he went to look at the house?" asked the chief.

"Because they were in the cellar. You didn't go into the cellar, did you, Mr. Wilkes?"

"No; oh, no," Wilkes replied.

"And remember, the girl wasn't in the house then," The Thinking Machine added. "She went to answer the advertisement which appeared after Mr. Wilkes had rented the house."

Then Hutchinson Hatch, who had been an interested listener, had a question.

"Why did you ask Mr. Wilkes if he had ever seen the knife or had given an order for a blade for it?"

"The blade in the dagger was of American make," replied the scientist. "The original had been broken. Peculiarly enough the new blade was made by the cutlery company which Mr. Wilkes represents. It was not impossible, therefore, that this dagger had been in his possession."

There was a long silence. The chief and Detective Fahey removed their half-chewed cigars and looked inquiringly at each other. Fahey shook his head— he had no questions. At last the chief turned to The Thinking Machine:

"If, as you say, Blake or Johnson killed Miss Gorham, how can we prove it? This is not proof— it is theory."

"Simply enough. Do the men occupy the same cell in Charlestown?"

"I hardly think so. Members of a gang that way are rarely kept in the same cell."

"In that case," said The Thinking Machine, "let the warden go to each man and tell him that the other has turned state's evidence, accusing his pal of the murder."

Johnson confessed.

39: Problem of the Motor Boat

CAPTAIN Hank Barber, master mariner, gripped the bow-rail of the Liddy Ann and peered off through the semi-fog of the early morning at a dark streak slashing along through the gray-green waters. It was a motor boat of long, graceful lines; and a

single figure, that of a man, sat upright at her helm staring uncompromisingly ahead. She nosed through a roller, staggered a little, righted herself and sped on as a sheet of spray swept over her. The helmsman sat motionless, heedless of the stinging splash of wind-driven water in his face.

"She sure is a-goin' some," remarked Captain Hank, reflectively. "By Ginger! If she keeps it up into Boston Harbour she won't stop this side o' the Public Gardens."

Captain Hank watched the boat curiously until she was swallowed up, lost in the mist, then turned to his own affairs. He was a couple of miles out of Boston Harbour, going in; it was six o'clock of a gray morning. A few minutes after the disappearance of the motor boat Captain Hank's attention was attracted by the hoarse shriek of a whistle two hundred yards away. He dimly traced through the mist the gigantic lines of a great vessel— it seemed to be a ship of war.

It was only a few minutes after Captain Hank lost sight of the motor boat that she was again sighted, this time as she flashed into Boston Harbour at full speed. She fled past, almost under the prow of a pilot boat, going out, and was hailed. At the mess table later the pilot's man on watch made a remark about her.

"Goin'! Well, wasn't she though! Never saw one thing pass so close to another in my life without scrubbin' the paint offen it. She was so close up I could spit in her, and when I spoke the feller didn't even look up— just kept a-goin'. I told *him* a few things that was good for his soul."

Inside Boston Harbour the motor boat performed a miracle. Pursuing a course which was singularly erratic and at a speed more than dangerous she reeled on through the surge of the sea regardless alike of fog, the proximity of other vessels and the heavy wash from larger craft. Here she narrowly missed a tug; there she skimmed by a slow-moving tramp and a warning shout was raised; a fisherman swore at her as only a fisherman can. And finally when she passed into a clear space, seemingly headed for a dock at top speed, she was the most unanimously

damned craft that ever came into Boston Harbour.

"Guess that's a through boat," remarked an aged salt, facetiously as he gazed at her from a dock. "If that durned fool don't take some o' the speed offen her she'll go through all right — wharf an' all."

Still the man in the boat made no motion; the whiz of her motor, plainly heard in a sudden silence, was undiminished. Suddenly the tumult of warning was renewed. Only a chance would prevent a smash. Then Big John Dawson appeared on the string piece of the dock. Big John had a voice that was noted from Newfoundland to Norfolk for its depth and width, and possessed objurgatory powers which were at once the awe and admiration of the fishing fleet.

"You ijit!" he bellowed at the impassive helmsman. "Shut off that power an' throw yer hellum."

There was no response; the boat came on directly toward the dock where Big John and his fellows were gathered. The fishermen and loungers saw that a crash was coming and scattered from the string piece.

"The *durned* fool," said Big John, resignedly.

Then came the crash, the rending of timbers, and silence save for the grinding whir of the motor. Big John ran to the end of the wharf and peered down. The speed of the motor had driven the boat half way upon a float which careened perilously. The man had been thrown forward and lay huddled up face downward and motionless on the float. The dirty water lapped at him greedily.

Big John was the first man on the float. He crept cautiously to the huddled figure and turned it face upward. He gazed for an instant into wide staring eyes then turned to the curious ones peering down from the dock.

"No wonder he didn't stop," he said in an awed tone. "The durned fool is dead."

Willing hands gave aid and after a minute the lifeless figure lay on the dock. It was that of a man in uniform— the uniform of

a foreign navy. He was apparently forty-five years old, large and powerful of frame with the sun-browned face of a seaman. The jet black of moustache and goatee was startling against the dead colour of the face. The hair was tinged with gray; and on the back of the left hand was a single letter— “D”— tattooed in blue.

“He’s French,” said Big John authoritatively, “an’ that’s the uniform of a Cap’n in the French Navy.” He looked puzzled a moment as he stared at the figure. “An’ they ain’t been a French man-o’-war in Boston Harbour for six months.”

After awhile the police came and with them Detective Mallory, the big man of the Bureau of Criminal Investigation; and finally Dr. Clough, Medical Examiner. While the detective questioned the fishermen and those who had witnessed the crash Dr. Clough examined the body.

“An autopsy will be necessary,” he announced as he arose.

“How long has he been dead?” asked the detective.

“Eight or ten hours, I should say. The cause of death doesn’t appear. There is no shot or knife wound so far as I can see.”

Detective Mallory closely examined the dead man’s clothing. There was no name or tailor mark; the linen was new; the name of the maker of the shoes had been ripped out with a knife. There was nothing in the pockets, not a piece of paper or even a vagrant coin.

Then Detective Mallory turned his attention to the boat. Both hull and motor were of French manufacture. Long, deep scratches on each side showed how the name had been removed. Inside the boat the detective saw something white and picked it up. It was a handkerchief— a woman’s handkerchief, with the initials “E. M. B.” in a corner.

“Ah, a woman’s in it!” he soliloquised.

Then the body was removed and carefully secluded from the prying eyes of the press. Thus no picture of the dead man appeared. Hutchinson Hatch, reporter, and others asked many questions. Detective Mallory hinted vaguely at international

questions— the dead man was a French officer, he said, and there might be something back of it.

“I can’t tell you all of it,” he said wisely, “but my theory is complete. It is murder. The victim was captain of a French man-of-war. His body was placed in a motor boat, possibly a part of the fittings of the war ship and the boat set adrift. I can say no more.”

“Your theory is complete then,” Hatch remarked casually, “except the name of the man, the manner of death, the motive, the name of his ship, the presence of the handkerchief and the precise reason why the body should be disposed of in this fashion instead of being cast into the sea?”

The detective snorted. Hatch went away to make some inquiries on his own account. Within half a dozen hours he had satisfied himself by telegraph that no French war craft had been within five hundred miles of Boston for six months. Thus the mystery grew deeper; a thousand questions to which there seemed no answer arose.

At this point, the day following the events related, the problem of the motor boat came to the attention of Professor Augustus S. F. X. Van Dusen, The Thinking Machine. The scientist listened closely but petulantly to the story Hatch told.

“Has there been an autopsy yet?” he asked at last.

“It is set for eleven o’clock today,” replied the reporter. “It is now after ten.”

“I shall attend it,” said the scientist.

Medical Examiner Clough welcomed the eminent Professor Van Dusen’s proffer of assistance in his capacity of M. D., while Hatch and other reporters impatiently cooled their toes on the curb. In two hours the autopsy had been completed. The Thinking Machine amused himself by studying the insignia on the dead man’s uniform, leaving it to Dr. Clough to make a startling statement to the press. The man had not been murdered; he had died of heart failure. There was no poison in the stomach, nor was there a knife or pistol wound.

Then the inquisitive press poured in a flood of questions. Who had scratched off the name of the boat? Dr. Clough didn't know. Why had it been scratched off? Still he didn't know. How did it happen that the name of the maker of the shoes had been ripped out? He shrugged his shoulders. What did the handkerchief have to do with it? Really he couldn't conjecture. Was there any inkling of the dead man's identity? Not so far as he knew. Any scar on the body which might lead to identification? No.

Hatch made a few mental comments on officials in general and skilfully steered The Thinking Machine away from the other reporters.

"Did that man die of heart failure?" he asked, flatly.

"He did not," was the curt reply. "It was poison."

"But the Medical Examiner specifically stated that there was no poison in the stomach," persisted the reporter.

The scientist did not reply. Hatch struggled with and suppressed a desire to ask more questions. On reaching home the scientist's first act was to consult an encyclopædia. After several minutes he turned to the reporter with an inscrutable face.

"Of course the idea of a natural death in this case is absurd," he said, shortly. "Every fact is against it. Now, Mr. Hatch, please get for me all the local and New York newspapers of the day the body was found— not the day after. Send or bring them to me, then come again at five this afternoon."

"But— but—" Hatch blurted.

"I can say nothing until I know all the facts," interrupted The Thinking Machine.

Hatch personally delivered the specified newspapers into the hands of The Thinking Machine— this man who never read newspapers— and went away. It was an afternoon of agony; an agony of impatience. Promptly at five o'clock he was ushered into Professor Van Dusen's laboratory. He sat half smothered in newspapers, and popped up out of the heap aggressively.

"It was murder, Mr. Hatch," he exclaimed, suddenly.
"Murder by an extraordinary method."

"Who— who is the man? How was he killed?" asked Hatch.

"His name is—" the scientist began, then paused. "I presume your office has the book '*Who's Who In America*?' Please 'phone and ask them to give you the record of Langham Dudley."

"Is he the dead man?" Hatch demanded quickly.

"I don't know," was the reply.

Hatch went to the telephone. Ten minutes later he returned to find The Thinking Machine dressed to go out.

"Langham Dudley is a ship owner, fifty-one years old," the reporter read from notes he had taken. "He was once a sailor before the mast and later became a ship owner in a small way. He was successful in his small undertakings and for fifteen years has been a millionaire. He has a certain social position, partly through his wife whom he married a year and a half ago. She was Edith Marston Belding, a daughter of the famous Belding family. He has an estate on the North Shore."

"Very good," commented the scientist. "Now we will find out something about how this man was killed."

At North Station they took train for a small place on the North Shore, thirty-five miles from Boston. There The Thinking Machine made some inquiries and finally they entered a lumbbersome carry-all. After a drive of half an hour through the dark they saw the lights of what seemed to be a pretentious country place. Somewhere off to the right Hatch heard the roar of the restless ocean.

"Wait for us," commanded The Thinking Machine as the carry-all stopped.

The Thinking Machine ascended the steps, followed by Hatch, and rang. After a minute or so the door was opened and a light flooded out. Standing before them was a Japanese— a man of indeterminate age with the graven face of his race.

"Is Mr. Dudley in?" asked The Thinking Machine.

"He has not that pleasure," replied the Japanese, and Hatch

smiled at the queerly turned phrase.

"Mrs. Dudley?" asked the scientist.

"Mrs. Dudley is attiring herself in clothing," replied the Japanese. "If you will be pleased to enter."

The Thinking Machine handed him a card and was shown into a reception room. The Japanese placed chairs for them with courteous precision and disappeared. After a short pause there was a rustle of silken skirts on the stairs, and a woman— Mrs. Dudley— entered. She was not pretty; she was stunning rather, tall, of superb figure and crowned with a glory of black hair.

"Mr. Van Dusen?" she asked as she glanced at the card.

The Thinking Machine bowed low, albeit awkwardly. Mrs. Dudley sank down on a couch and the two men resumed their seats. There was a little pause; Mrs. Dudley broke the silence at last.

"Well, Mr. Van Dusen, if you—" she began.

"You have not seen a newspaper for several days?" asked The Thinking Machine, abruptly.

"No," she replied, wonderingly, almost smiling. "Why?"

"Can you tell me just where your husband is?"

The Thinking Machine squinted at her in that aggressive way which was habitual. A quick flush crept into her face; and grew deeper at the sharp scrutiny. Inquiry lay in her eyes.

"I don't know," she replied at last. "In Boston, I presume."

"You haven't seen him since the night of the ball?"

"No. I think it was half past one o'clock that night."

"Is his motor boat here?"

"Really, I don't know. I presume it is. May I ask the purpose of this questioning?"

The Thinking Machine squinted hard at her for half a minute. Hatch was uncomfortable, half resentful even, at the agitation of the woman and the sharp, cold tone of his companion.

"On the night of the ball," the scientist went on, passing the question, "Mr. Dudley cut his left arm just above the wrist. It was only a slight wound. A piece of court plaster was put on it.

Do you know if he put it on himself? If not, who did?"

"I put it on," replied Mrs. Dudley, unhesitatingly, wondering.

"And whose court plaster was it?"

"Mine— some I had in my dressing room. Why?"

The scientist arose and paced across the floor, glancing once out the hall door. Mrs. Dudley looked at Hatch inquiringly and was about to speak when The Thinking Machine stopped beside her and placed his slim fingers on her wrist. She did not resent the action; was only curious if one might judge from her eyes.

"Are you prepared for a shock?" the scientist asked.

"What is it?" she demanded in sudden terror. "This suspense —"

"Your husband is dead— murdered— poisoned!" said the scientist with sudden brutality. His fingers still lay on her pulse. "The court plaster which you put on his arm and which came from your room was covered with a virulent poison which was instantly transfused into his blood."

Mrs. Dudley did not start or scream. Instead she stared up at The Thinking Machine a moment, her face became pallid, a little shiver passed over her. Then she fell back on the couch in a dead faint.

"Good!" remarked The Thinking Machine complacently. And then as Hatch started up suddenly: "Shut that door," he commanded.

The reporter did so. When he turned back his companion was leaning over the unconscious woman. After a moment he left her and went to a window where he stood looking out. As Hatch watched he saw the colour coming back into Mrs. Dudley's face. At last she opened her eyes.

"Don't get hysterical," The Thinking Machine directed calmly. "I know you had nothing whatever to do with your husband's death. I want only a little assistance to find out who killed him."

"Oh, my God!" exclaimed Mrs. Dudley. "Dead! Dead!"

Suddenly tears leapt from her eyes and for several minutes

the two men respected her grief. When at last she raised her face her eyes were red, but there was a rigid expression about the mouth.

"If I can be of any service—" she began.

"Is this the boat house I see from this window?" asked The Thinking Machine. "That long, low building with the light over the door?"

"Yes," replied Mrs. Dudley.

"You say you don't know if the motor boat is there now?"

"No, I don't."

"Will you ask your Japanese servant, and if he doesn't know, let him go see, please?"

Mrs. Dudley arose and touched an electric button. After a moment the Japanese appeared at the door.

"Osaka, do you know if Mr. Dudley's motor boat is in the boat house?" she asked.

"No, honourable lady."

"Will you go yourself and see?"

Osaka bowed low and left the room, closing the door gently behind him. The Thinking Machine again crossed to the window and sat down staring out into the night. Mrs. Dudley asked questions, scores of them, and he answered them in order until she knew the details of the finding of her husband's body—that is, the details the public knew. She was interrupted by the reappearance of Osaka.

"I do not find the motor boat in the house, honourable lady."

"That is all," said the scientist.

Again Osaka bowed and retired.

"Now, Mrs. Dudley," resumed The Thinking Machine almost gently, "we know your husband wore a French naval costume at the masked ball. May I ask what you wore?"

"It was a Queen Elizabeth costume," replied Mrs. Dudley, "very heavy with a long train."

"And if you could give me a photograph of Mr. Dudley?"

Mrs. Dudley left the room an instant and returned with a

cabinet photograph. Hatch and the scientist looked at it together; it was unmistakably the man in the motor boat.

"You can do nothing yourself," said The Thinking Machine at last, and he moved as if to go. "Within a few hours we will have the guilty person. You may rest assured that your name will be in no way brought into the matter unpleasantly."

Hatch glanced at his companion; he thought he detected a sinister note in the soothing voice, but the face expressed nothing. Mrs. Dudley ushered them into the hall; Osaka stood at the front door. They passed out and the door closed behind them.

Hatch started down the steps but The Thinking Machine stopped at the door and tramped up and down. The reporter turned back in astonishment. In the dim reflected light he saw the scientist's finger raised, enjoining silence, then saw him lean forward suddenly with his ear pressed to the door. After a little he rapped gently. The door was opened by Osaka who obeyed a beckoning motion of the scientist's hand and came out. Silently he was led off the veranda into the yard; he appeared in no way surprised.

"Your master, Mr. Dudley, has been murdered," declared The Thinking Machine quietly, to Osaka. "We know that Mrs. Dudley killed him," he went on as Hatch stared, "but I have told her she is not suspected. We are not officers and cannot arrest her. Can you go with us to Boston, without the knowledge of anyone here and tell what you know of the quarrel between husband and wife to the police?"

Osaka looked placidly into the eager face.

"I had the honour to believe that the circumstances would not be recognized," he said finally. "Since you know, I will go."

"We will drive down a little way and wait for you."

The Japanese disappeared into the house again. Hatch was too astounded to speak, but followed The Thinking Machine into the carry-all. It drove away a hundred yards and stopped. After a few minutes an impalpable shadow came toward them through

the night. The scientist peered out as it came up.

“Osaka?” he asked softly.

“Yes.”

An hour later the three men were on a train, Boston bound. Once comfortably settled the scientist turned to the Japanese.

“Now if you will please tell me just what happened the night of the ball?” he asked, “and the incidents leading up to the disagreement between Mr. and Mrs. Dudley?”

“He drank elaborately,” Osaka explained reluctantly, in his quaint English, “and when drinking he was brutal to the honourable lady. Twice with my own eyes I saw him strike her—once in Japan where I entered his service while they were on a wedding journey, and once here. On the night of the ball he was immeasurably intoxicated, and when he danced he fell down to the floor. The honourable lady was chagrined and angry—she had been angry before. There was some quarrel which I am not comprehensive of. They had been widely divergent for several months. It was, of course, not prominent in the presence of others.”

“And the cut on his arm where the court plaster was applied?” asked the scientist. “Just how did he get that?”

“It was when he fell down,” continued the Japanese. “He reached to embrace a carved chair and the carved wood cut his arm. I assisted him to his feet and the honourable lady sent me to her room to get court plaster. I acquired it from her dressing table and she placed it on the cut.”

“That makes the evidence against her absolutely conclusive,” remarked The Thinking Machine, as if finally. There was a little pause, and then: “Do you happen to know just how Mrs. Dudley placed the body in the boat?”

“I have not that honour,” said Osaka. “Indeed I am not comprehensive of anything that happened after the court plaster was put on except that Mr. Dudley was affected some way and went out of the house. Mrs. Dudley, too, was not in the ball room for ten minutes or so afterwards.”

Hutchinson Hatch stared frankly into the face of The Thinking Machine; there was nothing to be read there. Still deeply thoughtful Hatch heard the brakeman bawl "Boston" and mechanically followed the scientist and Osaka out of the station into a cab. They were driven immediately to Police Headquarters. Detective Mallory was just about to go home when they entered his office.

"It may enlighten you, Mr. Mallory," announced the scientist coldly, "to know that the man in the motor boat was not a French naval officer who died of natural causes— he was Langham Dudley, a millionaire ship owner. He was murdered. It just happens that I know the person who did it."

The detective arose in astonishment and stared at the slight figure before him inquiringly; he knew the man too well to dispute any assertion he might make.

"Who is the murderer?" he asked.

The Thinking Machine closed the door and the spring lock clicked.

"That man there," he remarked calmly, turning on Osaka.

For one brief instant there was a pause and silence; then the detective advanced upon the Japanese with hand outstretched. The agile Osaka leapt suddenly, as a snake strikes; there was a quick, fierce struggle and Detective Mallory sprawled on the floor. There had been just a twist of the wrist— a trick of jiu jitsu — and Osaka had flung himself at the locked door. As he fumbled there Hatch, deliberately and without compunction, raised a chair and brought it down on his head. Osaka sank down without a sound.

It was an hour before they brought him around again. Meanwhile the detective had patted and petted half a dozen suddenly acquired bruises, and had then searched Osaka. He found nothing to interest him save a small bottle. He uncorked it and started to smell it when The Thinking Machine snatched it away.

"You fool, that'll kill you!" he exclaimed.

OSAKA sat, lashed hand and foot to a chair, in Detective Mallory's office— so placed by the detective for safe keeping. His face was no longer expressionless; there were fear and treachery and cunning there. So he listened, perforce, to the statement of the case by The Thinking Machine who leaned back in his chair, squinting steadily upward and with his long, slender fingers pressed together.

"Two and two make four, not *some* times but *all* the time," he began at last as if disputing some previous assertion. "As the figure two, wholly disconnected from any other, gives small indication of a result, so is an isolated fact of little consequence. Yet that fact added to another, and the resulting fact added to a third, and so on, will give a final result. That result, if every fact is considered, *must* be correct. Thus any problem may be solved by logic; logic is inevitable.

"In this case the facts, considered singly, might have been compatible with either a natural death, suicide, or murder— considered together they proved murder. The climax of this proof was the removal of the maker's name from the dead man's shoes, and a fact strongly contributory was the attempt to destroy the identity of the boat. A subtle mind lay back of it all."

"I so regarded it," said Detective Mallory. "I was confident of murder until the Medical Examiner—"

"We prove a murder," The Thinking Machine went on serenely. "The method? I was with Dr. Clough at the autopsy. There was no shot, or knife wound, no poison in the stomach. Knowing there was murder I sought further. Then I found the method in a slight, jagged wound on the left arm. It had been covered with court plaster. The heart showed constriction without apparent cause, and while Dr. Clough examined it I took off this court plaster. Its odour, an unusual one, told me that poison had been transfused into the blood through the wound. So two and two had made four.

"Then— what poison? A knowledge of botany aided me. I

recognized faintly the trace of an odour of an herb which is not only indigenous to, but grows exclusively in Japan. Thus a Japanese poison. Analysis later in my laboratory proved it was a Japanese poison, virulent, and necessarily slow to act unless it is placed directly in an artery. The poison on the court plaster and that you took from Osaka are identical."

The scientist uncorked the bottle and permitted a single drop of a green liquid to fall on his handkerchief. He allowed a minute or more for evaporation then handed it to Detective Mallory who sniffed at it from a respectful distance. Then The Thinking Machine produced the bit of court plaster he had taken from the dead man's arm, and again the detective sniffed.

"The same," the scientist resumed as he touched a lighted match to the handkerchief and watched it crumble to ashes, "and so powerful that in its pure state mere inhalation is fatal. I permitted Dr. Clough to make public his opinion— heart failure — after the autopsy for obvious reasons. It would reassure the murderer for instance if he saw it printed, and besides Dudley did die from heart failure; the poison caused it.

"Next came identification. Mr. Hatch learned that no French war ship had been within hundreds of miles of Boston for months. The one seen by Captain Barber might have been one of our own. This man was supposed to be a French naval officer, and had been dead less than eight hours. Obviously he did not come from a ship of his own country. Then from where?

"I know nothing of uniforms, yet I examined the insignia on the arms and shoulders closely after which I consulted my encyclopædia. I learned that while the uniform was more French than anything else it was really the uniform of *no country*, because it was not correct. The insignia were mixed.

"Then what? There were several possibilities, among them a fancy dress ball was probable. Absolute accuracy would not be essential there. Where had there been a fancy dress ball? I trusted to the newspapers to tell me that. They did. A short dispatch from a place on the North Shore stated that on the

night before the man was found dead there had been a fancy dress ball at the Langham Dudley estate.

"Now it is as necessary to remember *every* fact in solving a problem as it is to consider every figure in arithmetic. Dudley! Here was the "D" tattooed on the dead man's hand. '*Who's Who*' showed that Langham Dudley married Edith Marston Belding. Here was the 'E. M. B.' on the handkerchief in the boat. Langham Dudley was a ship owner, had been a sailor, was a millionaire. Possibly this was his own boat built in France."

Detective Mallory was staring into the eyes of The Thinking Machine in frank admiration; Osaka to whom the narrative had thus far been impersonal, gazed, gazed as if fascinated. Hutchinson Hatch, reporter, was drinking in every word greedily.

"We went to the Dudley place," the scientist resumed after a moment. "This Japanese opened the door. Japanese poison! Two and two were still making four. But I was first interested in Mrs. Dudley. She showed no agitation and told me frankly that she placed the court plaster on her husband's arm, and that it came from her room. There was instantly a doubt as to her connection with the murder; her immediate frankness aroused it.

"Finally, with my hand on her pulse— which was normal— I told her as brutally as I could that her husband had been murdered. Her pulse jumped frightfully and as I told her the cause of death it wavered, weakened and she fainted. Now if she had known her husband were dead— even if she had killed him— a mere statement of his death would not have caused that pulse. Further I doubt if she could have disposed of her husband's body in the motor boat. He was a large man and the manner of her dress even, was against this. Therefore she was innocent.

"And then? The Japanese, Osaka, here. I could see the door of the boat house from the room where we were. Mrs. Dudley asked Osaka if Mr. Dudley's boat was in the house. He said he didn't know. Then she sent him to see. He returned and said the

boat was not there, *yet he had not gone to the boat house at all.* Ergo, he knew the boat was not there. He may have learned it from another servant, still it was a point against him.”

Again the scientist paused and squinted at the Japanese. For a moment Osaka withstood the gaze, then his beady eyes shifted and he moved uncomfortably.

“I tricked Osaka into coming here by a ludicrously simple expedient,” The Thinking Machine went on steadily. “On the train I asked if he knew just how Mrs. Dudley got the body of her husband into the boat. Remember at this point he was not supposed to know that the body had been in a boat at all. He said he didn’t know and by that very answer admitted that he knew the body had been placed in the boat. He knew because he put it there himself. He didn’t merely throw it in the water because he had sense enough to know if the tide didn’t take it out it would rise, and possibly be found.

“After the slight injury Mr. Dudley evidently wandered out toward the boat house. The poison was working, and perhaps he fell. Then this man removed all identifying marks, even to the name in the shoes, put the body in the boat and turned on full power. He had a right to assume that the boat would be lost, or that the dead man would be thrown out. Wind and tide and a loose rudder brought it into Boston Harbour. I do not attempt to account for the presence of Mrs. Dudley’s handkerchief in the boat. It might have gotten there in one of a hundred ways.”

“How did you know husband and wife had quarrelled?” asked Hatch.

“Surmise to account for her not knowing where he was,” replied The Thinking Machine. “If they had had a violent disagreement it was possible that he would have gone away without telling her, and she would not have been particularly worried, at least up to the time we saw her. As it was she presumed he was in Boston; perhaps Osaka here gave her that impression?”

The Thinking Machine turned and stared at the Japanese

curiously.

"Is that correct?" he asked.

Osaka did not answer.

"And the motive?" asked Detective Mallory, at last.

"Will you tell us just why you killed Mr. Dudley?" asked The Thinking Machine of the Japanese.

"I will not," exclaimed Osaka, suddenly. It was the first time he had spoken.

"It probably had to do with a girl in Japan," explained The Thinking Machine, easily. "The murder had been a long cherished project, such a one as revenge through love would have inspired."

It was a day or so later that Hutchinson Hatch called to inform The Thinking Machine that Osaka had confessed and had given the motive for the murder. It was not a nice story.

"One of the most astonishing things to me," Hatch added, "is the complete case of circumstantial evidence against Mrs. Dudley, beginning with the quarrel and leading to the application of the poison with her own hands. I believe she would have been convicted on the actual circumstantial evidence had you not shown conclusively that Osaka did it."

"Circumstantial fiddlesticks!" snapped The Thinking Machine. "I wouldn't convict a yellow dog of stealing jam on circumstantial evidence alone, even if he had jam all over his nose." He squinted truculently at Hatch for a moment. "In the first place well behaved dogs don't eat jam," he added more mildly.

40: Problem of the Lost Radium

One ounce of radium! Within his open palm Professor Dexter held practically the world's entire supply of that singular and seemingly inexhaustible force which was, and is, one of the greatest of all scientific riddles. So far as known there were only

a few more grains in existence— four in the Curie laboratory in Paris, two in Berlin, two in St. Petersburg, one at Leland Stanford University and one in London. All the remainder was here— here in the Yarvard laboratory, a tiny mass lumped on a small piece of steel.

Gazing at this vast concentrated power Professor Dexter was a little awed and a little appalled at the responsibility which had suddenly devolved upon him, naturally enough with this culmination of a project which he had cherished for months. Briefly this had been to gather into one cohesive whole the many particles of the precious substance scattered over the world for the purpose of elaborate experiments as to its motive power practicability. Now here it was.

Its value, based on scarcity of supply, was incalculable. Millions of dollars would not replace it. Minute portions had come from the four quarters of the globe, in each case by special messenger, and each separate grain had been heavily insured by Lloyd's at a staggering premium. It was only after months of labour, backed by the influence of the great university of Yarvard in which he held the chair of physics, that Professor Dexter had been able to accomplish his purpose.

At least one famous name had been loaned to the proposed experiments, that of the distinguished scientist and logician, Professor Augustus S. F. X. Van Dusen— so called The Thinking Machine. The interest of this master mind in the work was a triumph for Professor Dexter, who was young and comparatively unknown. The elder scientist— The Thinking Machine— was a court of last appeal in the sciences and from the moment his connection with Professor Dexter's plans was announced his fellows all over the world had been anxiously awaiting a first word.

Naturally the task of gathering so great a quantity of radium had not been accomplished without extensive, and sometimes sensational, newspaper comment all over the United States and Europe. It was not astonishing, therefore that news of the

receipt of the final portion of the radium at Yarvard had been known in the daily press and with it a statement that Professors Van Dusen and Dexter would immediately begin their experiments.

The work was to be done in the immense laboratory at Yarvard a high-ceilinged room with roof partially of glass, and with windows set high in the walls far above the reach of curious eyes. Full preparations had been made;—the two men were to work together, and a guard was to be stationed at the single door. This door led into a smaller room, a sort of reception hall, which in turn connected with the main hallway of the building.

Now Professor Dexter was alone in the laboratory, waiting impatiently for The Thinking Machine and turning over in his mind the preliminary steps in the labour he had undertaken. Every instrument was in place, all else was put aside for these experiments, which were either to revolutionize the motive power of the world or else demonstrate the utter uselessness of radium as a practical force.

Professor Dexter's line of thought was interrupted by the appearance of Mr. Bowen, one of the instructors of the University.

"A lady to see you, Professor," he said as he handed him a card. "She said it was a matter of great importance to you."

Professor Dexter glanced at the card as Mr. Bowen turned and went out through the small room into the main hallway. The name, Mme. Therese du Chastaigny, was wholly unfamiliar. Puzzled a little and perhaps impatient too, he carefully laid the steel with its burden of radium on the long table, and started out into the reception room. Almost in the door he stumbled against something, recovered his equilibrium with an effort and brought up with an undignified jerk.

The colour mounted to his modest ears as he heard a woman laugh—a pleasant, musical, throaty sort of ripple that under other circumstances would have been agreeable. Now, being directed at his own discomfiture, it was irritating, and the

Professor's face tingled a little as a tall woman arose and came towards him.

"Please pardon me," she said contritely, but there was still a flicker of a smile upon her red lips. "It was my carelessness. I should not have placed my suit case in the door." She lifted it easily and replaced it in that identical position. "Or perhaps," she suggested, inquiringly, "someone else coming out might stumble as you did?"

"No," replied the Professor, and he smiled a little through his blushes. "There is no one else in there."

As Mme. du Chastaigny straightened up, with a rustle of skirts, to greet him Professor Dexter was somewhat surprised at her height and at the splendid lines of her figure. She was apparently of thirty years and seemed from a casual glance, to be five feet nine or ten inches tall. In addition to a certain striking indefinable beauty she was of remarkable physical power if one might judge from her poise and manner. Professor Dexter glanced at her and then at the card inquiringly.

"I have a letter of introduction to you from Mme. Curie of France," she explained as she produced it from a tiny chatelaine bag. "Shall we go over here where the light is better?"

She handed the letter to him and together they seated themselves under one of the windows near the door into the outer hallway. Professor Dexter pulled up a light chair facing her and opened the letter. He glanced through it and then looked up with a newly kindled interest in his eyes.

"I should not have disturbed you," Mme. du Chastaigny explained pleasantly, "had I not known it was a matter of the greatest possible interest to you."

"Yes?" Professor Dexter nodded.

"It's radium," she continued. "It just happens that I have in my possession practically an ounce of radium of which the world of science has never heard."

"An ounce of radium!" repeated Professor Dexter, incredulously. "Why, Madame, you astonish, amaze me. An

ounce of radium?"

He leaned further forward in his chair and waited expectantly while Mme. du Chastaigny coughed violently. The paroxysm passed after a moment.

"That is my punishment for laughing," she explained, smilingly. "I trust you will pardon me. I have a bad throat—and it was quick retribution."

"Yes, yes," said the other courteously, "but this other—it's most interesting. Please tell me about it."

Mme. du Chastaigny made herself comfortable in the chair, cleared her throat, and began.

"It's rather an unusual story," she said apologetically, "but the radium came into my possession in quite a natural manner. I am English, so I speak the language, but my husband was French as my name indicates, and, he, like you, was a scientist. He was little known to the world at large, however, as he was not connected with any institution. His experiments were undertaken for amusement and gradually led to a complete absorption of his interest. We were not wealthy as Americans count it, but we were comfortably well off.

"That much for my affairs. The letter I gave you from Mme. Curie will tell you the rest as to who I am. Now when the discovery of radium was made by M. and Mme. Curie my husband began some investigations along the same line and they proved to be remarkably successful. His efforts were first directed towards producing radium, with what object, I was not aware at that time. In the course of months he made grain after grain by some process unlike that of the Curies', and incidentally he spent practically all our little fortune. Finally he had nearly an ounce."

"Most interesting!" commented Professor Dexter. "Please go on."

"It happened that during the production of the last quarter of an ounce, my husband contracted an illness which later proved fatal," Mme. du Chastaigny resumed after a slight pause,

and her voice dropped. "I did not know the purpose of his experiments; I only knew what they had been and their comparative cost. On his death bed he revealed this purpose to me. Strangely enough it was identical with yours as the newspapers have announced it— that is, the practicability of radium as a motive power. He was at work on plans looking to the utilization of its power when he died but these plans were not perfected and unfortunately were in such shape as to be unintelligible to another."

She paused and sat silent for a moment. Professor Dexter watching her face, traced a shadow of grief and sorrow there and his own big heart prompted a ready sympathy.

"And what," he asked, "was your purpose in coming to me now?"

"I know of the efforts you have made and the difficulties you have encountered in gathering enough radium for the experiments you have in mind," Mme. du Chastaigny continued, "and it occurred to me that what I have, which is of no possible use to me, might be sold to you or to the university. As I said, there is nearly an ounce of it. It is where I can put my hands on it, and you of course are to make the tests to prove it is what it should be."

"Sell it?" gasped Professor Dexter. "Why, Madame, it's impossible. The funds of the college are not so plentiful that the vast fortune necessary to purchase such a quantity would be forth-coming."

A certain hopeful light in the face of the young woman passed and there was a quick gesture of her hands which indicated disappointment.

"You speak of a vast fortune," she said at last. "I could not hope, of course, to realize anything like the actual value of the substance— a million perhaps? Only a few hundred thousands? Something to convert into available funds for me the fortune which has been sunk."

There was almost an appeal in her limpid voice and Professor

Dexter considered the matter deeply for several minutes as he stared out the window.

"Or perhaps," the woman hurried on after a moment, "it might be that you need more radium for the experiments you have in hand now, and there might be some sum paid me for the use of what I have? A sort of royalty? I am willing to do anything within reason."

Again there was a long pause. Ahead of him, with this hitherto unheard of quantity of radium available, Professor Dexter saw rosy possibilities in his chosen work. The thought gripped him more firmly as he considered it. He could see little chance of a purchase— but the use of the substance during his experiments! That might be arranged.

"Madame," he said at last, "I want to thank you deeply for coming to me. While I can promise nothing definite I can promise that I will take up the matter with certain persons who may be able to do something for you. It's perfectly astounding. Yes, I may say that I *will* do something, but I shall perhaps, require several days to bring it about. Will you grant me that time?"

Mme. du Chastaigny smiled.

"I must of course," she said, and again she went off into a paroxysm of coughing, a distressing, hacking outburst which seemed to shake her whole body. "Of course," she added, when the spasm passed, "I can only hope that you can do something either in purchasing or using it."

"Could you fix a definite price for the quantity you have—that is a sale price— and another price merely for its use?" asked Professor Dexter.

"I can't do that offhand of course, but here is my address on this card—Hotel Teutonic. I expect to remain there for a few days and you may reach me any time. Please, now please," and again there was a pleading note in her voice, and she laid one hand on his arm, "don't hesitate to make any offer to me. I shall be only too glad to accept it if I can."

She arose and Professor Dexter stood beside her.

"For your information," she went on, "I will explain that I only arrived in this country yesterday by steamer from Liverpool and my need is such that within another six months I shall be absolutely dependent upon what I may realize from the radium."

She crossed the room, picked up the suit case and again she smiled, evidently at the recollection of Professor Dexter's awkward stumble. Then with her burden she turned to go.

"Permit me, Madame," suggested Professor Dexter, quickly as he reached for the bag.

"Oh no, it is quite light," she responded easily.

There were a few commonplaces and then she went out. Gazing through the window after her Professor Dexter noted, with certain admiration in his eyes the graceful strong lines of her figure as she entered a carriage and was driven away. He stood deeply thoughtful for a minute considering the possibilities arising from her casual announcement of the existence of this unknown radium.

"If I only had that too," he muttered as he turned and re-entered his work room.

An instant later, a cry— a wild amazed shriek— came from the laboratory and Professor Dexter, with pallid face, rushed out through the reception room and flung open the door into the main hallway. Half a dozen students gathered about him and from across the hall Mr. Bowen, the instructor, appeared with startled eyes.

"The radium is gone— stolen!" gasped Professor Dexter.

The members of the little group stared at one another blankly while Professor Dexter raved impotently and ran his fingers through his hair. There were questions and conjectures; a babble was raging about him when a new figure loomed up in the picture. It was that of a small man with an enormous yellow head and an eternal petulant droop to the corners of his mouth. He had just turned a corner in the hall.

"Ah, Professor Van Dusen," exclaimed Professor Dexter, and he seized the long, slender hand of The Thinking Machine in a frenzied grip.

"Dear me! Dear me!" complained The Thinking Machine as he sought to extract his fingers from the vice. "Don't do that. What's the matter?"

"The radium is gone— stolen!" Professor Dexter explained.

The Thinking Machine drew back a little and squinted aggressively into the distended eyes of his fellow scientist.

"Why that's perfectly silly," he said at last. "Come in, please, and tell me what happened."

With perspiration dripping from his brow and hands atremble, Professor Dexter followed him into the reception room, whereupon The Thinking Machine turned, closed the door into the hallway and snapped the lock. Outside Mr. Bowen and the students heard the click and turned away to send the astonishing news hurtling through the great university. Inside Professor Dexter sank down on a chair with staring eyes and nervously twitching lips.

"Dear me, Dexter, are you crazy?" demanded The Thinking Machine irritably. "Compose yourself. What happened? What were the circumstances of the disappearance?"

"Come— come in here— the laboratory and see," suggested Professor Dexter.

"Oh, never mind that now," said the other impatiently. "Tell me what happened?"

Professor Dexter paced the length of the small room twice then sat down again, controlling himself with a perceptible effort. Then, ramblingly but completely, he told the story of Mme. du Chastaigny's call, covering every circumstance from the time he placed the radium on the table in the laboratory until he saw her drive away in the carriage. The Thinking Machine leaned back in his chair with squint eyes upturned and slender white fingers pressed tip to tip.

"How long was she here?" he asked at the end.

"Ten minutes, I should say," was the reply.

"Where did she sit?"

"Right where you are, facing the laboratory door."

The Thinking Machine glanced back at the window behind him.

"And you?" he asked.

"I sat here facing her."

"You know that she did not enter the laboratory?"

"I know it, yes," replied Professor Dexter promptly. "No one save me has entered that laboratory today. I have taken particular pains to see that no one did. When Mr. Bowen spoke to me I had the radium in my hand. He merely opened the door, handed me her card and went right out. Of course it's impossible that—"

"Nothing is impossible, Mr. Dexter," blazed The Thinking Machine suddenly. "Did you at any time leave Mme. du Chastaigny in this room alone?"

"No, no," declared Dexter emphatically. "I was looking at her every moment she was here; I did not put the radium out of my hand until Mr. Bowen was out of this room and in the hallway there. I then came into this room and met her."

For several minutes The Thinking Machine sat perfectly silent, squinting upward while Professor Dexter gazed into the inscrutable face anxiously.

"I hope," ventured the Professor at last, "that you do not believe it was any fault of mine?"

The Thinking Machine did not say.

"What sort of a voice has Mme. du Chastaigny?" he asked instead.

The Professor blinked a little in bewilderment.

"An ordinary voice— the low voice of a woman of education and refinement," he replied.

"Did she raise it at any time while talking?"

"No."

"Perhaps she sneezed or coughed while talking to you?"

Unadulterated astonishment was written on Professor Dexter's face.

"She coughed, yes, violently," he replied.

"Ah!" exclaimed The Thinking Machine and there was a flash of comprehension in the narrow blue eyes. "Twice, I suppose?"

Professor Dexter was staring at the scientist blankly.

"Yes, twice," he responded.

"Anything else?"

"Well, she laughed I think."

"What was the occasion of her laughter?"

"I stumbled over a suit case she had set down by the laboratory door there."

The Thinking Machine absorbed that without evidence of emotion, then reached for the letter of introduction which Mme. du Chastaigny had given to Professor Dexter and which he still carried crumpled up in his hand. It was a short note, just a few lines in French, explaining that Mme. du Chastaigny desired to see Professor Dexter on a matter of importance.

"Do you happen to know Mme. Curie's handwriting?" asked The Thinking Machine after a cursory examination. "Of course you had some correspondence with her about this work?"

"I know her writing, yes," was the reply. "I think that is genuine, if that's what you mean."

"We'll see after a while," commented The Thinking Machine.

He arose and led the way into the laboratory. There Professor Dexter indicated to him the exact spot on the work table where the radium had been placed. Standing beside it he made some mental calculation as he squinted about the room, at the highly placed windows, the glass roof above, the single door. Then wrinkles grew in his tall brow.

"I presume all the wall windows are kept fastened?"

"Yes, always."

"And those in the glass roof?"

"Yes."

"Then bring me a tall step-ladder please!"

It was produced after a few minutes. Professor Dexter looked on curiously and with a glimmer of understanding as The Thinking Machine examined each catch on every window, and tapped the panes over with a pen-knife. When he had examined the last and found all locked he came down the ladder.

"Dear me!" he exclaimed petulantly. "It's perfectly extraordinary— most extraordinary. If the radium was not stolen through the reception room, then— then—" He glanced around the room again.

Professor Dexter shook his head. He had recovered his self-possession somewhat, but his bewilderment left him helpless.

"Are you sure, Professor Dexter," asked The Thinking Machine at last coldly, "*are you sure* you placed the radium where you have indicated?"

There was almost an accusation in the tone and Professor Dexter flushed hotly.

"I am positive, yes," he replied.

"And you are absolutely certain that neither Mr. Bowen nor Mme. du Chastaigny entered this room?"

"I am absolutely positive."

The Thinking Machine wandered up and down the long table apparently without any interest, handling the familiar instruments and glittering appliances as a master.

"Did Mme. du Chastaigny happen to mention any children?" he at last asked, irrelevantly.

Professor Dexter blinked again.

"No," he replied.

"Adopted or otherwise?"

"No."

"Just what sort of a suit case was that she carried?"

"Oh, I don't know," replied Professor Dexter. "I didn't particularly notice. It seemed to be about the usual kind of a suit case— sole leather I imagine."

"She arrived in this country yesterday you said?"

"Yes."

"It's perfectly extraordinary," The Thinking Machine grunted. Then he scribbled a line or two on a scrap of paper and handed it to Professor Dexter.

"Please have this sent by cable at once."

Professor Dexter glanced at it. It was:

Mme. Curie, Paris:

Did you give Mme. du Chastaigny letter of introduction for Professor Dexter? Answer quick.

Augustus S. F. X. Van Dusen

As Professor Dexter glanced at the dispatch his eyes opened a little.

"You don't believe that Mme. du Chastaigny could have—" he began.

"I daresay I know what Mme. Curie's answer will be," interrupted the other abruptly.

"What?"

"It will be no," was the positive reply. "And then—" He paused.

"Then—?"

"Your veracity may be brought into question."

With flaming face and tightly clenched teeth but without a word, Professor Dexter saw The Thinking Machine unlock the door and pass out. Then he dropped into a chair and buried his face in his hands. There Mr. Bowen found him a few minutes later.

"Ah, Mr. Bowen," he said, as he glanced up, "please have this cable sent immediately."

Once in his apartments The Thinking Machine telephoned to Hutchinson Hatch, reporter, at the office of his newspaper. That long, lean, hungry looking young man was fairly bubbling with suppressed emotion when he rushed into the booth to answer and the exhilaration of pure enthusiasm made his voice vibrant when he spoke. The Thinking Machine readily understood.

"It's about the radium theft at Yarvard that I wanted to speak to you," he said.

"Yes," Hatch replied. "just heard of it this minute—a bulletin from Police Headquarters. I was about to go out on it."

"Please do something for me first," requested The Thinking Machine. "Go at once to the Hotel Teutonic and ascertain indisputably for me whether or not Mme. du Chastaigny, who is stopping there, is accompanied by a child."

"Certainly, of course," said Hatch, "but the story—"

"This is the story," interrupted The Thinking Machine, tartly. "If you can learn nothing of any child at the hotel go to the steamer on which she arrived yesterday from Liverpool and inquire there. I must have definite, absolute, indisputable evidence."

"I'm off," Hatch responded.

He hung up the receiver and rushed out. He happened to be professionally acquainted with the chief clerk of the Teutonic, a monosyllabic, rotund gentleman who was an occasional source of private information and who spent his life adding up a column of figures.

"Hello, Charlie," Hatch greeted him. "Mme. du Chastaigny stopping here?"

"Yep," said Charlie.

"Husband with her?"

"Nope."

"By herself when she came?"

"Yep."

"Hasn't a child with her?"

"Nope."

"What does she look like?"

"A corker!" said Charlie.

This last loquacious outburst seemed to appease the reporter's burning thirst for information and he rushed away to the dock where the steamship, Granada from Liverpool, still lay. Aboard he sought out the purser and questioned him along the

same lines with the same result. There was no trace of a child. Then Hatch made his way to the home of The Thinking Machine.

"Well?" demanded the scientist.

The reporter shook his head.

"She hasn't seen or spoken to a child since she left Liverpool so far as I can ascertain," he declared.

It was not quite surprise, it was rather perturbation in the manner of The Thinking Machine now. It showed in a quick gesture of one hand, in the wrinkles on his brow, in the narrowing down of his eyes. He dropped back into a chair and remained there silent, thoughtful for a long time.

"It couldn't have been, it couldn't have been, it couldn't have been," the scientist broke out finally.

Having no personal knowledge on the subject, whatever it was, Hatch discreetly remained silent. After a while The Thinking Machine aroused himself with a jerk and related to the reporter the story of the lost radium so far as it was known.

"The letter of introduction from Mme. Curie opened the way for Mme. du Chastaigny," he explained. "Frankly I believe that letter to be a forgery. I cabled asking Mme. Curie. A 'No' from her will mean that my conjecture is correct; a 'Yes' will mean—but that is hardly worth considering. The question now is: What method was employed to cause the disappearance of the radium from that room?"

The door opened and Martha appeared. She handed a cablegram to The Thinking Machine and he ripped it open with hurried fingers. He glanced at the sheet once, then arose suddenly after which he sat down again, just as suddenly.

"What is it?" ventured Hatch.

"It's 'Yes,' " was the reply.

IN THE seclusion of his own small laboratory The Thinking Machine was making some sort of chemical experiment about eight o'clock that night. He was just hoisting a graduated glass, containing a purplish, hazy fluid, to get the lamp light through it,

when an idea flashed into his mind. He permitted the glass to fall and smash on the floor.

"Perfectly stupid of me," he grumbled and turning he walked into an adjoining room without so much as a glance at the wrecked glass. A minute later he had Hutchinson Hatch on the telephone.

"Come right up," he instructed.

There was that in his voice which caused Hatch to jump. He seized his hat and rushed out of his office. When he reached The Thinking Machine's apartments that gentleman was just emerging from the room where the telephone was.

"I have it," the scientist told the reporter, forestalling a question. "It's ridiculously simple. I can't imagine how I missed it except through stupidity."

Hatch smiled behind his hand. Certainly stupidity was not to be charged against The Thinking Machine.

"Come in a cab?" asked the scientist.

"Yes, it's waiting."

"Come on then."

They went out together. The scientist gave some instruction to the cabby and they clattered off.

"You're going to meet a very remarkable person," The Thinking Machine explained. "He may cause trouble and he may not—any way look out for him. He's tricky."

That was all. The cab drew up in front of a large building, evidently a boarding house of the middle class. The Thinking Machine jumped out, Hatch following, and together they ascended the steps. A maid answered the bell.

"Is Mr.— Mr.— oh, what's his name?" and The Thinking Machine snapped his fingers as if trying to remember. "Mr—, the small gentleman who arrived from Liverpool yesterday—"

"Oh," and the maid smiled broadly, "you mean Mr. Berkerstrom?"

"Yes, that's the name," exclaimed the scientist. "Is he in, please?"

"I think so, sir," said the maid, still smiling. "Shall I take your card?"

"No, it isn't necessary," replied The Thinking Machine. "We are from the theatre. He is expecting us."

"Second floor, rear," said the maid.

They ascended the stairs and paused in front of a door. The Thinking Machine tried it softly. It was unlocked and he pushed it open. A bright light blazed from a gas jet but no person was in sight. As they stood silent, they heard a newspaper rattle and both looked in the direction whence came the sound.

Still no one appeared. The Thinking Machine raised a finger and tiptoed to a large upholstered chair which faced the other way. One slender hand disappeared on the other side to be lifted immediately. Wriggling in his grasp was a man— a toyman — a midget miniature in smoking jacket and slippers who swore fluently in German. Hatch burst out laughing, an uncontrollable fit which left him breathless.

"Mr. Berkerstrom, Mr. Hatch," said The Thinking Machine gravely. "This is the gentleman, Mr. Hatch, who stole the radium. Before you begin to talk, Mr. Berkerstrom, I will say that Mme. du Chastaigny has been arrested and has confessed."

"*Ach, Gott!*" raged the little German. "Let me down, der chair in, ef you please."

The Thinking Machine lowered the tiny wriggling figure into the chair while Hatch closed and locked the door. When the reporter came back and looked, laughter was gone. The drawn wrinkled face of the midget, the babyish body, the toy clothing, added to the pitiful helplessness of the little figure. His age might have been fifteen or fifty, his weight was certainly not more than twenty-five pounds, his height barely thirty inches.

"It iss as we did him in der theatre, und—" Mr. Berkerstrom started to explain limply.

"Oh, that was it?" inquired The Thinking Machine curiously as if some question in his own mind had been settled. "What is Mme. du Chastaigny's correct name?"

"She iss der famous Mlle. Fanchon, und I am der marvellous midget, Count von Fritz," proclaimed Mr. Berkerstrom proudly in play-bill fashion.

Then a glimmer of what had actually happened flashed through Hatch's mind; he was staggered by the sublime audacity which made it possible. The Thinking Machine arose and opened a closet door at which he had been staring. From a dark recess he dragged out a suit case and from this in turn a small steel box.

"Ah, here is the radium," he remarked as he opened the box. "Think of it, Mr. Hatch. An actual value of millions in that small box."

Hatch *was* thinking of it, thinking all sorts of things, as he mentally framed an opening paragraph for this whooping big yarn. He was still thinking of it as he and The Thinking Machine accompanied willingly enough by the midget, entered the cab and were driven back to the scientist's house.

An hour later Mme. du Chastaigny called by request. She imagined her visit had something to do with the purchase of an ounce of radium; Detective Mallory, watching her out a corner of his official eye, imagined she imagined that. The next caller was Professor Dexter. Dumb anger gnawed at his heart, but he had heeded a telephone request. The Thinking Machine and Hatch completed the party.

"Now, Mme. du Chastaigny, please," The Thinking Machine began quietly, "will you please inform me if you have *another* ounce of radium in addition to that you stole from the Yarvard laboratory?"

Mme. du Chastaigny leaped to her feet. The Thinking Machine was staring upward with squint eyes and finger tips pressed together. He didn't alter his position in the slightest at her sudden move— but Detective Mallory did.

"Stole?" exclaimed Mme. du Chastaigny. "Stole?"

"That's the word I used," said The Thinking Machine almost pleasantly.

Into the woman's eyes there leapt a blaze of tigerish ferocity. Her face flushed, then the colour fled and she sat down again, perfectly pallid.

"Count von Fritz has recounted his part in the affair to me," went on The Thinking Machine. He leaned forward and took a package from the table. "Here is the radium. Now have you any radium in addition to this?"

"The radium!" gasped the Professor incredulously.

"If there is no denial Count von Fritz might as well come in, Mr. Hatch," remarked The Thinking Machine.

Hatch opened the door. The midget bounded into the room in true theatric style.

"Is it enough, Mlle. Fanchon?" inquired the scientist. There was an ironic touch in his voice.

Mme. du Chastaigny nodded, dumbly.

"It would interest you, of course, to know how it came out," went on The Thinking Machine. "I daresay your inspiration for the theft came from a newspaper article, therefore you probably know that I was directly interested in the experiments planned. I visited the laboratory immediately after you left with the radium. Professor Dexter told me your story. It was clever, clever, but there was too much radium, therefore unbelievable. If not true, then why had you been there? The answer is obvious.

"Neither you or anyone else save Mr. Dexter entered that laboratory. Yet the radium was gone. How? My first impression was that your part in the theft had been to detain Mr. Dexter while someone entered the laboratory or else fished out the radium through a window in the glass roof by some ingenious contrivance. I questioned Mr. Dexter as to your precise acts, and ventured the opinion that you had either sneezed or coughed. You had coughed twice— obviously a signal— thus that view was strengthened.

"Next, I examined window and roof fastenings— all were locked. I tapped over the glass to see if they had been tampered

with. They had not. Apparently the radium had not gone through the reception room; certainly it had not gone any other way— yet it was gone. It was a nice problem until I recalled that Mr. Dexter had mentioned a suit case. Why did a woman, on business, go out carrying a suit case? Or why, granting that she had a good reason for it, should she take the trouble to drag it into the reception room instead of leaving it in the carriage?

“Now, I didn’t believe you had any radium; I knew you had signalled to the real thief by coughing. Therefore I was prepared to believe that the suit case was the solution of the theft. How? Obviously, something concealed in it. What? A monkey? I dismissed that because the thief must have had the reasoning instinct. If not a monkey then what? A child? That seemed more probable, yet it was improbable. I proceeded, however, on the hypothesis that a child carefully instructed had been the actual thief.”

Open eyes were opened wider. Mme. du Chastaigny, being chiefly concerned, followed the plain, cold reasoning as if fascinated. Count von Fritz straightened his necktie and smiled.

“I sent a cable to Mme. Curie asking if the letter of introduction was genuine, and sent Mr. Hatch to get a trace of a child. He informed me that there was no child just about the time I heard from Mme. Curie that the letter was genuine. The problem immediately went back to the starting point. Time after time I reasoned it out, always the same way— finally the solution came. If not a monkey or a child then what? A midget. Of course it was stupid of me not to have seen that possibility at first.

“Then there remained only the task of finding him. He probably came on the same boat with the woman, and I saw a plan to find him. It was through the driver of the carriage which Mme. du Chastaigny used. I got his number by ’phone at the Hotel Teutonic. Where had Mme. du Chastaigny left a suit case? He gave me an address. I went there.

“I won’t attempt to explain how this woman obtained the

letter from Mme. Curie. I will only say that a woman who undertakes to sell an ounce of radium to a man from whom she intends to steal it is clever enough to do anything. I may add that she and the midget are theatrical people, and that the idea of a person in a suit case came from some part of their stage performance. Of course the suit case is so built that the midget could open and close it from inside."

"Und it always gets der laugh," interposed the midget, complacently.

After awhile the prisoners were led away. Count von Fritz escaped three times the first day by the simple method of wriggling between the bars of his cell.

41: The Problem of The Haunted Bell

IT WAS a thing, trivial enough, yet so strangely mystifying in its happening that the mind hesitated to accept it as an actual occurrence despite the indisputable evidence of the sense of hearing. As the seconds ticked on, Franklin Phillips was not at all certain that it had happened, and gradually the doubt began to assume the proportions of a conviction. Then, because his keenly-attuned brain did not readily explain it, the matter was dismissed as an impossibility. Certainly it had not happened. Mr. Phillips smiled a little. Of course, it was— it must be— a trick of his nerves.

But, even as the impossibility of the thing grew upon him, the musical clang still echoed vaguely in his memory, and his eyes were still fixed inquiringly on the Japanese gong whence it had come. The gong was of the usual type—six bronze discs, or inverted bowls, of graduated sizes, suspended one above the other, with the largest at the top, and quaintly colored with the deep, florid tones of Japan's ancient decorative art. It hung motionless at the end of a silken cord which dropped down sheerly from the ceiling over a corner of his desk. It was certainly

harmless enough in appearance, yet— yet—

As he looked the bell sounded again. It was a clear, rich, vibrant note— a boom which belched forth suddenly as if of its own volition, quavered full-toned, then diminished until it was only a lingering sense of sound. Mr. Phillips started to his feet with an exclamation.

Now, in the money-marts of the world, Franklin Phillips was regarded as a living refutation of all theories as to the physical disasters consequent upon a long pursuit of the strenuous life— a human antithesis of nerves. He breathed fourteen times to the minute and his heart-beat was always within a fraction of seventy-one. This was true whether there were millions at stake in a capricious market or whether he ordered a cigar. In this calm lay the strength which had enabled him to reach his fiftieth year in perfect mental and physical condition.

Back of this utter normality was a placid, inquiring mind; so now, deliberately, he took a pencil and tapped the bells of the gong one after another, beginning at the bottom. The shrill note of the first told him instantly that was not the one which had sounded; nor was the second, nor the third. At the fourth he hesitated and struck a second time. Then he tapped the fifth. That was it. The gong trembled and swayed slightly from the blow, light as it was, and twice again he struck it. Then he was convinced.

For several minutes he stood staring, staring blankly. What had caused the bell to ring? His manner was calm, cold, quiet, inquisitive— indomitable common-sense inspired the query.

"I guess it was nerves," he said after a moment. "But I was looking at it, and—"

Nerves as a possibility were suddenly brushed ruthlessly aside, and he systematically sought some tangible explanation of the affair. Had a flying insect struck the bell? No. He was positive, because he had been looking directly at it when it sounded the second time. He would have seen an insect. Had something dropped from the ceiling? No. He would have seen

that, too. With alert, searching eyes he surveyed the small room. It was his own personal den— a sort of office in his home. He was alone now; the door closed; everything appeared as usual.

Perhaps a window! The one facing east was open to the lightly stirring air of the first warm evening of spring. The wind had disturbed the gong! He jumped at the thought as an inspiration. It faded when he saw the window-curtains hanging down limply; the movement of the air was too light to disturb even these. Perhaps something had been tossed through the window! The absurdity of that conjecture was proven instantly. There was a screen in the window of so fine a mesh that hardly more than a grain of sand could pass through it. And this screen was intact.

With bewilderment in his face Mr. Phillips sat down again. Then recurred to him one indisputable fact which precluded the possibility of all those things he had considered. There had been absolutely no movement— that is, perceptible movement— of the gong when the bell sounded. Yet the tone was loud, as if a violent blow had been struck. He remembered that, when he tapped the bell sharply with his pencil, it swayed and trembled visibly, but the pencil was so light that the tone sounded far away and faint. To convince himself he touched the bell again, ever so lightly. It swayed.

“Well, of all the extraordinary things I ever heard of!” he remarked.

After a while he lighted a cigar, and for the first time in his life his hand shook. The sight brought a faint expression of amused surprise to his lips; then he snapped his fingers impatiently and settled back in his chair. It was a struggle to bring his mind around to material things; it insisted on wandering, and wove fantastic, grotesque conjectures in the drifting tobacco smoke. But at last common-sense triumphed under the sedative influence of an excellent cigar, and the incident of the bell floated off into nothingness. Business affairs — urgent, real, tangible business affairs— focused his attention.

Then, suddenly, clamorously, with the insistent acclaim of a fire-alarm, the bell sounded— once! twice! thrice! Mr. Phillips leaped to his feet. The tones chilled him and stirred his phlegmatic heart to quicker action. He took a long, deep breath, and, with one glance around the little room, strode out into the hall. He paused there a moment, glanced at his watch—it was four minutes to nine— then went on to his wife's apartments.

Mrs. Phillips was reclining in a chair and listening with an amused smile to her son's recital of some commonplace college happening which chanced to be of interest to him. She was forty or forty-two, perhaps, and charming. Women never learn to be charming until they're forty; until then they are only pretty and amiable— sometimes. The son, Harvey Phillips, arose as his father entered. He was a stalwart young man of twenty, a prototype, as it were, of that hard-headed, masterful financier— Franklin Phillips.

"Why, Frank, I thought you were so absorbed in business that—" Mrs. Phillips began.

Mr. Phillips paused and looked blankly, unseeingly, as one suddenly aroused from sleep, at his wife and son— the two dearest of all earthly things to him. The son noted nothing unusual in his manner; the wife, with intuitive eyes, read some vague uneasiness.

"What is it?" she asked solicitously. "Has something gone wrong?"

Mr. Phillips laughed nervously and sat down near her.

"Nothing, nothing," he assured her. "I feel unaccountably nervous somehow, and I thought I should like to talk to you rather than—than—"

"Keep on going over and over those stupid figures?" she interrupted. "Thank you."

She leaned forward with a gesture of infinite grace and took his hand. He clenched it spasmodically to stop its absurd trembling and, with an effort all the greater because it was repressed so sternly, regained control of his panic-stricken

nerves. Harvey Phillips excused himself and left the room.

"Harvey has just been explaining the mysteries of baseball to me," said Mrs. Phillips. "He's going to play on the Harvard team." Her husband stared at her without the slightest heed or comprehension of what she was saying.

"Can you tell me," he asked suddenly, "where you got that Japanese gong in my room?"

"Oh, that? I saw it in the window of a queer old curio shop I pass sometimes on my charity rounds. I looked at it two or three months ago and bought it. The place is in Cranston Street. It's kept by an old German—Wagner, I think his name is. Why?"

"It looks as if it might be very old, a hundred years perhaps," remarked Mr. Phillips.

"That's what I thought," responded his wife, "and the coloring is exquisite. I had never seen one exactly like it, so—"

"It doesn't happen to have any history, I suppose?" he interrupted.

"Not that I know of."

"Or any peculiar quality, or— or attribute out of the ordinary?"

Mrs. Phillips shook her head.

"I'm sure I don't know what you mean," she replied. "The only peculiar quality I noticed was the singular purity of the bells and the coloring."

Mr. Phillips coughed over his cigar.

"Yes, I noticed the bells myself," he explained lamely. "It just struck me that the thing was— was out of the ordinary, and I was a little curious about it." He was silent a moment. "It looks as if it might have been valuable once."

"I hardly think so," Mrs. Phillips responded. "I believe thirty dollars is what I paid for it— all that was asked."

That was all that was said about the matter at the time. But on the following morning an early visitor at Wagner's shop was Franklin Phillips. It was a typical place of its kind, half curio and half junk-store, with a coat of dust over all. There had been a

crude attempt to enhance the appearance of the place by an artistic arrangement of several musty antique pieces, but, otherwise, it was a chaos of all things. An aged German met Mr. Phillips as he entered.

"Is this Mr. Wagner?" inquired the financier.

Extreme caution, amounting almost to suspicion, seemed to be a part of the old German's business régime, for he looked at his visitor from head to foot with keen eyes, then evaded the question.

"What do you want?" he asked.

"I want to know if this is Mr. Wagner," said Mr. Phillips tersely. "Is it, or is it not?"

The old man met his frank stare for a moment; then his cunning, faded eyes wavered and dropped.

"I am Johann Wagner," he said humbly. "What do you want?"

"Some time ago— two or three months— you sold a Japanese gong—" Mr. Phillips began.

"I never sold it!" interrupted Wagner vehemently. "I never had a Japanese gong in the place! I never sold it!"

"Of course you sold it," insisted Mr. Phillips. "A Japanese gong—do you understand? Six bells on a silken cord."

"I never had such a thing in my life— never had such a thing in my shop!" declared the German excitedly. "I never sold it, so help me! I never saw it!"

Curiosity and incredulity were in Mr. Phillips' eyes as he faced the old man.

"Do you happen to have any clerk?" he asked. "Or did you have three months ago?"

"No, I never had a clerk," explained the German with a violence which Mr. Phillips did not understand. "There has never been anybody here but me. I never had a Japanese gong here— I never sold one! I never saw one here!"

Mr. Phillips studied the aged, wrinkled face before him calmly for several seconds. He was trying vainly to account for

an excitement, a vehemence which was as inexplicable as it was unnecessary.

"It's absurd to deny that you sold the bell," he said finally. "My wife bought it of you, here in this place."

"I never sold it!" stormed the German. "I never had it! No women ever came here. I don't want women here. I don't know anything about a Japanese gong. I never had one here."

Deeply puzzled and thoroughly impatient, Mr. Phillips decided to forego this attempt at a casual inquiry into the history of the gong. After a little while he went away. The old German watched him cautiously, with cunning, avaricious eyes, until he stepped on a car.

As the cool, pleasant days of early spring passed on the bell held its tongue. Only once, and that was immediately after his visit to the old German's shop, did Mr. Phillips refer to it again. Then he inquired casually of his wife if she had bought it of the old man in person, and she answered in the affirmative, describing him. Then the question came to him: Why had Wagner absolutely denied all knowledge of the bell, of its having been in his possession and of having sold it?

But, after a time, this question was lost in vital business affairs which engrossed his attention. The gong still hung over his desk and he occasionally glanced at it. At such times his curiosity was keen, poignant even, but he made no further effort to solve the mystery which seemed to enshroud it.

So, until one evening a wealthy young Japanese gentleman, Oku Matsumi, by name, son of a distinguished nobleman in his country's diplomatic service, came to dinner at the Phillips' home as the guest of Harvey Phillips. They were classmates in Harvard, and a friendship had grown up between them which was curious, perhaps, but explainable on the ground of a mutual interest in art.

After dinner Mr. Matsumi expressed his admiration for several pictures which hung in the luxurious dining-room, and so it followed naturally that Mr. Phillips exhibited some other rare

works of art. One of these pictures, a Da Vinci, hung in the little room where the gong was. With no thought of that, at the moment, Mr. Phillips led the way in and the Japanese followed.

Then a peculiar thing happened. At sight of the gong Mr. Matsumi seemed amazed, startled, and, taking one step toward it, he bent as if in obeisance. At the same time his right hand was thrust outward and upward as if describing some symbol in the air.

...UTTER silence! A suppliant throng, bowed in awed humility with hands outstretched, palms downward, and yellow faces turned in mute prayer toward the light which fluttered up feebly from the sacred fire upon the stony, leering countenance of Buddha. The gigantic golden image rose cross-legged from its pedestal and receded upward and backward into the gloom of the temple. The multitude shaded off from bold outlines within the glow of the fire to a shadowy, impalpable mass in the remotest corners; hushed of breath, immovably staring into the drooping eyes of their graven-god.

Behind the image was a protecting veil of cloth of gold. Presently there came a murmur, and the supplicants, with one accord, prostrated themselves until their heads touched the bare, cold stones of the temple floor. The murmur grew into the weirdly beautiful chant of the priests of Buddha. The flickering light for an instant gave an appearance of life to the heavy-lidded, drooping eyes, then it steadied again and they seemed fixed on the urn wherein the fire burned.

After a moment the curtain of gold was thrust aside in three places simultaneously, and three silken-robed priests appeared. Each bore in his hand a golden sceptre. Together they approached the sacred fire and together they thrust the sceptres into it. Instantly a blaze spouted up, illuminating the vast, high-roofed palace of worship, and a cloud of incense arose. The sweetly sickening odor spread out, fanlike, over the throng.

The three priests turned away from the urn, and each, with slow, solemn tread, made his way to an altar of incense with the flaming torch held aloft. They met again at the feet of Buddha and prostrated themselves, at the same time extending the right hand and forming some symbol in the air. The chant from behind the golden veil softened to a murmur, and the murmur grew into silence. Then:

“Gautama!”

The name came from the three together—the tone was a prayer. It reverberated for an instant in the recesses of the great temple; then the multitude, with one motion, raised themselves, repeated the single word and groveled again on their faces.

“Siddhartha, Beloved!”

Again the three priests spoke and again the supplicants moved as one, repeating the words. The burning incense grew heavy, the sacred fire flickered, and shadows flitted elusively over the golden, graven face of the Buddha.

“Sayka-muni, Son of Heaven!”

The moving of the multitude as it swayed and answered was in perfect accord. It was as if one heart, one soul, one thought had inspired the action.

“O Buddha! Wise One! Enlightened One!” came the voices of the priests again. “Oh, Son of Kapilavastu! Chosen One! Holy One who found Nirvana! Your unworthy people are at your feet. Omnipotent One! We seek your gracious counsel!”

The voices in chorus had risen to a chant. When they ceased there was the chill of suspense; a little shiver ran through the temple; there was a hushed movement of terrified anxiety. Of all the throng only the priests dared raise their eyes to the cold, graven face of the image. For an instant the chilling silence; then boldly, vibrantly, a bell sounded—once!

“Buddah has spoken!”

It was a murmurous whisper, almost a sigh, plaintive, awestricken. The note of the bell trembled on the incense-laden air, then was dissipated, welded into silence again. Priests and

people were cowering on the bare stones; the lights flared up suddenly, then flickered, and the semi-gloom seemed to grow sensibly deeper. Behind the veil of gold the chant of the priests began again. But it was a more solemn note— a despairing wail. For a short time it went on, then died away.

Again the sacred fire blazed up as if caught by a gust of wind, but the glow did not light the Buddha's face now—it was concentrated on a bronze gong which dropped down sheerly on a silken cord at Buddha's right hand. There were six discs, the largest at the top, silhouetted against the darkness of the golden veil beyond. From one of these bells the sound had come, but now they hung mute and motionless. Only the three priests raised reverential eyes to it, and one, the eldest rose.

"O Voice of Buddha!" he apostrophized in a moving, swinging chant—and the face of the graven-god seemed swallowed up in the shadows— "we, your unworthy disciples, await! Each year at the eleventh festival we supplicate! But thrice only hast thou spoken in the half-century, and thrice within the eleventh day of your speaking our Emperor has passed into the arms of Death and Nirvana. Shall it again be so, Omnipotent One?"

The chant died away and the multitude raised itself to its knees with supplicating hands thrust out into the darkness toward the dim-lit gong. It was an attitude of beseeching, of prayer, of entreaty.

And again, as it hung motionless, the bell sounded. The tone rolled out melodiously, clearly— Once! Twice! Thrice! Those who gazed at the miracle lowered their eyes lest they be stricken blind. And the bell struck on— Four! Five! Six! A plaintive, wailing cry was raised; the priests behind the veil of gold were chanting again. Seven! Eight! Nine! The people took up the rolling chant as they groveled, and it swelled until the ancient walls of the temple trembled. Ten! Eleven!

Utter silence! A supplicant throng, bowed in awed humility, with hands outstretched, palms downward, and yellow faces

turned in mute prayer toward the light which fluttered up feebly from the sacred fire upon the stony, leering countenance of Buddha!.

MR. MATSUMI straightened up suddenly to find his host staring at him in perturbed amazement.

"Why did you do that?" Mr. Phillips blurted uneasily.

"Pardon me, but you wouldn't understand if I told you," replied the Japanese with calm, inscrutable face. "May I examine it, please?" And he indicated the silent and motionless gong.

"Certainly," replied the financier wonderingly.

Mr. Matsumi, with a certain eagerness which was not lost upon the American, approached the gong and touched the bells lightly, one after another, evidently to get the tone. Then he stooped and examined them carefully— top and bottom. Inside the largest bell— that at the top— he found something which interested him. After a close scrutiny he again straightened up, and in his slant eyes was an expression which Mr. Phillips would have liked to interpret.

"I presume you have seen it before?" he ventured.

"No, never," was the reply.

"But you recognized it!"

Mr. Matsumi merely shrugged his shoulders.

"And what made you do that?" By "that" Mr. Phillips referred to Mr. Matsumi's strange act when he first saw the bell.

Again the Japanese shrugged his shoulders. An exquisite, innate courtesy which belonged to him was apparently forgotten now in contemplation of the gong. The financier gnawed at his mustache. He was beginning to feel nervous—the nervousness he had felt previously, and his imagination ran riot.

"You have not had the gong long?" remarked Mr. Matsumi after a pause.

"Three or four months."

"Have you ever noticed anything peculiar about it?"

Mr. Phillips stared at him frankly.

"Well, rather!" he said at last, in a tone which was perfectly convincing.

"It rings, you mean— the fifth bell?"

Mr. Phillips nodded. There was a tense eagerness in the manner of the Japanese.

"You have never heard the bell ring eleven times?"

Mr. Phillips shook his head. Mr. Matsumi drew a long breath—whether it was relief the other couldn't say. There was silence. Mr. Matsumi closed and unclosed his small hands several times.

"Pardon me for mentioning the matter under such circumstances," he said at last, in a tone which suggested that he feared giving offence, "but would you be willing to part with the gong?"

Mr. Phillips regarded him keenly. He was seeking in the other's manner some inkling to a solution of a mystery which each moment seemed more hopelessly beyond him.

"I shouldn't care to part with it," he replied casually. "It was given to me by my wife."

"Then no offer I might make would be considered?"

"No, certainly not," replied Mr. Phillips tartly. There was a pause. "This gong has interested me immensely. I should like to know its history. Perhaps you can enlighten me?"

With the imperturbability of his race, Mr. Matsumi declined to give any information. But, with a graceful return of his former exquisite courtesy, he sought more definite knowledge for himself.

"I will not ask you to part with the gong," he said, "but perhaps you can inform me where your wife bought it?" He paused for a moment. "Perhaps it would be possible to get another like it?"

"I happen to know there isn't another," replied Mr. Phillips. "It came from a little curio shop in Cranston Street, kept by a German named Johann Wagner."

And that was all. This incident passed as the other had, the net result being only further to stimulate Mr. Phillips' curiosity. It

seemed a futile curiosity, yet it was ever present, despite the fact that the gong still hung silent.

On the next evening, a balmy, ideal night of spring, Mr. Phillips had occasion to go into the small room. This was just before dinner was announced. It was rather close there, so he opened the east window to a grateful breeze, and placed the screen in position, after which he stooped to pull out a drawer of his desk. Then came again the quick, clangorous boom of the bell—One! Two! Three! Four! Five! Six! Seven!

At the first stroke he straightened up; at the second he leaned forward toward the gong with his eyes riveted to the fifth disc. As it continued to ring he grimly held on to jangling nerves and looked for the cause. Beneath the bells, on top, all around them he sought. There was nothing! nothing! The sounds simply burst out, one after another, as if from a heavy blow, yet the bell did not move. For the seventh time it struck, and then with white, ghastly face and chilled, stiff limbs Mr. Phillips rushed out of the room. A dew of perspiration grew in the palms of his quivering hands.

It was a night of little rest and strange dreams for him. At breakfast on the following morning Mrs. Phillips poured his coffee and then glanced through the mail which had been placed beside her.

“Do you particularly care for that gong in your room?” she inquired.

Mr. Phillips started a little. That particular object had enchained his attention for the last dozen hours, awake and asleep.

“Why?” he asked.

“You know I told you I bought it of a curio dealer,” Mrs. Phillips explained. “His name is Johann Wagner, and he offers me five hundred dollars if I will sell it back to him. I presume he has found it is more valuable than he imagined, and the five hundred dollars would make a comfortable addition to my charity fund.”

Mr. Phillips was deeply thoughtful. Johann Wagner! What was this new twist? Why had Wagner denied all knowledge of the gong to him? Having denied, why should he now make an attempt to buy it back? In seeking answers to these questions he was silent.

"Well, dear?" inquired his wife after a pause. "You didn't answer me."

"No, don't sell the gong," he exclaimed abruptly. "Don't sell it at any price. I— I want it. I'll give you a cheque for your charity."

There was something of uneasiness in her devoted eyes. Some strange, subtle, indefinable air which she could not fathom was in his manner. With a little sigh which breathed her unrest she finished her breakfast.

On the following morning still another letter came from Johann Wagner. It was an appeal—an impassioned appeal—hurriedly scrawled and almost incoherent in form. He *must* have the gong! He would give five thousand dollars for it. Mrs. Phillips was frankly bewildered at the letter, and turned it over to her husband. He read it through twice with grimly-set teeth.

"No," he exclaimed violently; "it sha'n't be sold for any price!" Then his voice dropped as he recollected himself. "No, my dear," he continued, "it shall not be sold. It was a present from you to me. I want it, but"— and he smiled whimsically— "if he keeps raising the price it will add a great deal to your charity fund, won't it?"

Twice again within thirty-six hours Mr. Phillips heard the bell ring—once on one occasion and four on the other. And now visibly, tangibly, a great change was upon him. The healthy glow went from his face. There was a constant twitching of his hands; a continual, impatient snapping of his fingers. His eyes lost their steady gaze. They roved aimlessly, and one's impression always was that he was listening. The strength of the master spirit was being slowly destroyed, eaten up by a hideous gnawing thing of which he seemed hopelessly obsessed. But he took no one into

his confidence; it was his own private affair to work out to the end.

This condition was upon him at a time when the activity of the speculative centres of the world was abnormal, and when every faculty was needed in the great financial schemes of which he was the centre. He, in person, held the strings which guided millions. The importance of his business affairs was so insistently and relentlessly thrust upon him that he was compelled to meet them. But the effort was a desperate one, and that night late, when a city slept around him, the bell sounded twice.

When he reached his downtown office next day an enormous amount of detail work lay before him, and he attacked it with a feverish exaltation which followed upon days and nights of restlessness. He had been at his desk only a few minutes when his private telephone clattered. With an exclamation he arose; comprehending, he sat down again.

Half-a-dozen times within the hour the bell rang, and each time he was startled. Finally he arose in a passion, tore the desk-telephone from its connecting wires and flung it into the waste-basket. Deliberately he walked around to the side of his desk and, with a well-directed kick, smashed the battery-box. His secretary regarded him in amazement.

"Mr. Camp," directed the financier sharply, "please instruct the office operator not to ring another telephone-bell in this office— ever."

The secretary went out and he sat down to work again. Late that afternoon he called on his family physician, Doctor Perdue, a robust individual of whom it was said that his laugh cured more patients than his medicine. Be that as it may, he was a successful man, high in his profession. Doctor Perdue looked up with frank interest as he entered.

"Hello, Phillips!" was his greeting. "What can I do for you?"

"Nerves," was the laconic answer.

"I thought it would come to that," remarked the physician, and he shook his head sagely. "Too much work, too much worry

and too many cigars; and besides, you're not so young as you once were."

"It isn't work or cigars," Phillips replied impatiently. "It's worry— worry because of some peculiar circumstances which— which—"

He paused with a certain childish feeling of shame, of cowardice. Doctor Perdue regarded him keenly and felt of his pulse.

"What peculiar circumstances?" he demanded.

"Well, I— I can hardly explain it myself," replied Mr. Phillips, between tightly-clenched teeth. "It's intangible, unreal, ghostly — what you will. Perhaps I can best make you understand it by saying that I'm always— I always seem to be waiting for something."

Doctor Perdue laughed heartily; Mr. Phillips glared at him.

"Most of us are always waiting for something," said the physician. "If we got it there wouldn't be any particular object in life. Just what sort of thing is it you're always waiting for?"

Mr. Phillips arose suddenly and paced the length of the room twice. His under jaw was thrust out a little, his teeth crushed together, but in his eyes lay a haunting, furtive fear.

"I'm always waiting for a— for a bell," he blurted fiercely, and his face became scarlet. "I know it's absurd, but I awake in the night trembling, and lie for hours waiting, waiting, yet dreading the sound as no man ever dreaded anything in this world. At my desk I find myself straining every nerve, waiting, listening. When I talk to any one I'm always waiting, waiting, waiting! Now, right this minute, I'm waiting, waiting for it. The thing is driving me mad, man, mad! Don't you understand?"

Doctor Perdue arose with grave face and led the financier back to his seat.

"You are behaving like a child, Phillips!" he said sharply. "Sit down and tell me about it."

"Now, look here, Perdue," and Mr. Phillips brought his fist down on the desk with a crash, "you must believe it— you've

got to believe it! If you don't, I shall know I am mad."

"Tell me about it," urged the physician quietly.

Then haltingly, hesitatingly, the financier related the incidents as they had happened. Incipient madness, fear, terror, blazed in his eyes, and at times his pale lips quivered as a child's might. The physician listened attentively and nodded several times.

"The bell must be— must be haunted!" Mr. Phillips burst out in conclusion. "There's no reasonable way to account for it. My common-sense tells me that it doesn't sound at all, and yet I know it does."

Doctor Perdue was silent for several minutes.

"You know, of course, that your wife did buy the bell of the old German?" he asked after a while.

"Why, certainly, I know it. It's proved absolutely by the letters he writes trying to get it back."

"And your fear doesn't come from anything the Japanese said?"

"It isn't the denial of the German; it isn't the childish things Mr. Matsumi said and did; it's the actual sound of the bell that's driving me insane— it's the hopeless, everlasting, eternal groping for a reason. It's an inanimate thing and it acts as if— it acts as if it were alive!"

The physician had been sitting with his fingers on Mr. Phillips' wrist. Now he arose and mixed a quieting potion which the other swallowed at a gulp. Soon after his patient went home somewhat more self-possessed, and with rigid instructions as to the regularity of his life and habits.

"You need about six months in Europe more than anything else," Doctor Perdue declared. "Take three weeks, shape up your business and go. Meanwhile, if you won't sell the gong or throw it away, keep out of its reach."

NEXT morning a man— a stranger— was found dead in the small room where the gong hung. A bullet through the heart

showed the manner of death. The door leading from the room into the hall was locked on the outside; an open window facing east indicated how he had entered and suggested a possible avenue of escape for his slayer.

Attracted by the excitement which followed the discovery of the body, Mr. and Mrs. Phillips went to investigate, and thus saw the dead man. The wife entered the room first, and for an instant stood speechless, staring into the white, upturned face. Then came an exclamation.

"Why, it's the man from whom I bought the gong!" She turned to find her husband peering over her shoulder. His face was ashen to the lips, his eyes wide and staring.

"Johann Wagner!" he exclaimed.

Then, as if frenzied, he flung her aside and rushed to where the gong hung silent and motionless. He seemed bent on destruction as he reached for it with gripping fingers. Suddenly he staggered as if from a heavy blow in the face, and covered both eyes with his hands.

"Look!" he screamed.

There was a smudge of fresh, red blood on the fifth bell. Mrs. Phillips glanced from the bell to him inquiringly.

He stood for a moment with hands pressed to his eyes, then laughed mirthlessly, demoniacally.

HERE A SMALL brazier spouting a blue flame, there a retort partially filled with some purplish, foul-smelling liquid, yonder a sinuous copper coil winding off into the shadows, and moving about like an alchemist of old, the slender, childlike figure of Professor Augustus S. F. X. Van Dusen, Ph. D., LL. D., F. R. S., M. D., etc., etc. A ray of light shot down blindingly from a reflector above and brilliantly illuminated the laboratory table. The worker leaned forward to peer at some minute particle under the microscope, and for an instant his head and face were thrown out against the darkness of the room like some grotesque, disembodied thing.

It was a singular head and face— a head out of all proportion to body, domelike, enormous, with a wilderness of straw-yellow hair. The face was small, wizened, petulant even; the watery blue eyes, narrow almost to the disappearing point, squinted everlastingly through thick spectacles; the mouth drooped at the corners. The small, white hands which twisted and turned the object-glass into focus were possessed of extraordinarily long, slender fingers.

This man of the large head and small body was the undisputed leader in contemporaneous science. His was the sanest, coldest, clearest brain in scientific achievement. His word was the final one. Once upon a time a newspaperman, Hutchinson Hatch, had dubbed him The Thinking Machine, and so it came about that the world at large had heard of and knew him by that title. The reporter, a tall, slender young man, sat now watching him curiously and listening. The scientist spoke in a tone of perpetual annoyance; but a long acquaintance had taught the reporter that it was what he said and not the manner of its saying that was to be heeded.

“Imagination, Mr. Hatch, is the single connecting link between man and the infinite,” The Thinking Machine was saying. “It is the one quality which distinguishes us from what we are pleased to call the brute creation, for we have the same passions, the same appetites, and the same desires. It is the most valuable adjunct to the scientific mind, because it is the basis of all scientific progress. It is the thing which temporarily bridges gaps and makes it possible to solve all material problems — not some, but all of them. We can achieve nothing until we imagine it. Just so far as the human brain can imagine it can comprehend. It fails only to comprehend the eternal purpose, the Omnipotent Will, because it cannot imagine it. For imagination has a limit, Mr. Hatch, and beyond that we are not to go— beyond that is Divinity.”

This wasn't at all what Hatch had come to hear, but he listened with a sort of fascination.

"The first intelligent being," the irritated voice went on, "had to imagine that when two were added to two there would be a result. He found it was four, he proved it was four, and instantly it became immutable— a point in logic, a thing by which we may solve problems. Thus two and two make four, not sometimes, but all the time."

"I had always supposed that imagination was limitless," Hatch ventured for a moment, "that it knows no bounds."

The Thinking Machine squinted at him coldly.

"On the contrary," he declared, "it has a boundary beyond which the mind of man merely reels, staggers, collapses. I'll take you there." He spoke as if it were just around the corner. "By aid of a microscope of far less power than the one there, the atomic or molecular theory was formulated. You know that—it is that all matter is composed of atoms. Now, imagination suggested and logic immutably demonstrates that the atoms themselves are composed of other atoms, and that those atoms in turn are composed of still others, *ad infinitum*. They are merely invisible, and imagination— I am not now stating a belief, but citing an example of what imagination can do— imagination can make us see the possibility of each of those atoms, down to infinity, being inhabited, being in itself a world relatively as distant from its fellows as we are from the moon. We can even imagine what those inhabitants would look like."

He paused a minute; Hatch blinked several times.

"But the boundary lies the other way—through the telescope," continued the scientist. "The most powerful glass ever devised has brought no suggestion of the end of the universe. It only brings more millions of worlds, invisible to the naked eye into sight. The stronger the glass, the more hopeless the task of even conjecturing the end, and here, too, the imagination can apply the atomic theory, and logic will support it. In other words, atoms make matter, matter makes the world, which is an inconceivably tiny speck in our solar system, an atom; therefore, all the millions and millions of worlds are mere

atoms, infinitesimal parts of some far greater scheme. What greater scheme? There is the end of imagination! There the mind stops!”

The immensity of the conception made Hatch gasp a little. He sat silent for a long time, awed, oppressed. Never before in his life had he felt of so little consequence.

“Now, Mr. Hatch, as to this little problem that is annoying you,” continued The Thinking Machine, and the matter-of-fact tone was a great relief. “What I have said has had, of course, no bearing on it, except in so far as it demonstrates that imagination is necessary to solve a problem, that all material problems may be solved, and that, in meeting them, logic is the lever. It is a fixed quantity; its simplest rules have enabled me to solve petty affairs for you in the past, so—”

The reporter came to himself with a start. Then he laid before this master brain the circumstances which cast so strange a mystery about the death by violence of Johann Wagner, junk-dealer, in the home of Franklin Phillips, millionaire. But his information was only from the time the police came into the affair. Mr. Phillips, Doctor Perdue and Mr. Matsumi alone knew of the ringing of the bell.

“The blood-spot on one of the bells,” Hatch told the scientist in conclusion, “may be the mark of a hand, but its significance doesn’t appear. Just now the police are working on two queer points which they developed. First, Detective Mallory recognized the dead man as ‘Old Dutch’ Wagner, long suspected of conducting a ‘fence’ — that is, receiving and disposing of stolen goods; and second, one of the servants in the Phillips’ household, Giles Francis, has disappeared. He hasn’t been seen since eleven o’clock on the night before the body was found, and then he was in bed sound asleep. Every article of his clothing, except a pair of shoes, trousers, and pajamas, was left behind.”

The Thinking Machine turned away from the laboratory table and sank into a chair. For a long time he sat with his enormous

yellow head thrown back and his slender, white fingers pressed tip to tip.

"If Wagner was shot through the heart," he said at last, "we know that death was instantaneous; therefore he could not have made the blood-mark on the bell." It seemed to be a statement of fact. "But why should there *be* such a mark on the bell?"

"Detective Mallory thinks that—" began the reporter.

"Oh, never mind what he thinks!" interrupted the other testily. "What time was the body found?"

"About half-past nine yesterday morning."

"Anything stolen?"

"Nothing. The body was simply there, the window open and the door locked, and there was the blood-mark on the bell."

There was a pause. Cobwebby lines appeared on the broad forehead of the scientist and the squint eyes narrowed down to mere slits. Hatch was watching him curiously.

"What does Mr. Phillips say about it?" asked The Thinking Machine. He was still staring upward and his thin lips were drawn into a straight line.

"He is ill, just how ill we don't know," responded the newspaper man. "Doctor Perdue has, so far, not permitted the police to question him."

The scientist lowered his eyes quickly.

"What's the matter with him?" he demanded.

"I don't know. Doctor Perdue has declined to make any statement."

Half an hour later The Thinking Machine and Hatch called at the Phillips' house. They met Doctor Perdue coming out. His face was grave and preoccupied; his professional air of jocundity was wholly absent. He shook hands with The Thinking Machine, whom he had met years before beside an operating-table, and reentered the house with him. Together the three went to the little room—the scene of the tragedy.

The Japanese gong still swung over the desk. The crabbed little scientist went straight to it, and for five minutes devoted

his undivided attention to a study of the splotch on the fifth bell. From the expression of his face Hatch could gather nothing. What the scientist saw might or might not have been illuminating. Was the splotch the mark of a hand? If it were, Hatch argued, it offered no clew, as the intricate lines of the flesh were smeared together, obliterated.

Next The Thinking Machine critically glanced about him, and finally threw open the window facing east. For a long time he stood silently squinting out; and, save for the minute lines in his forehead, there was no indication whatever of his mental workings. The little room was on the second floor and jutted out at right angles across a narrow alley which ran beneath them to the kitchen in the back. The dead-wall of the next building was only four feet from the Phillips' wall, and was without windows, so it was easily seen how a man, unobserved, might climb up from below despite an arc-light above the wide front door of an apartment-house across the street, visible in the vista of the alley.

"Do you happen to know, Perdue," asked The Thinking Machine at last, "if this west window was ever opened?"

"Never," replied the physician. "Detective Mallory questioned the servants about it. It seems that the kitchen is beneath, somewhat to the back, and the odors of cooking came up."

"How many outside doors has this house?"

"Only two," was the reply: "the one you entered, and one opening into the alley below us."

"Both were found locked yesterday morning?"

"Yes. Both doors have spring-locks, therefore each locks itself when closed."

"Oh!" exclaimed the scientist suddenly.

He turned away from the window, and, for a second time, examined the still and silent gong. Somewhere in his mind seemed to be an inkling that the gong might be more closely associated than appeared with the mystery of death, and yet,

watching him curiously, Doctor Perdue knew he could have no knowledge of the sinister part it had played in the affair. With a penknife The Thinking Machine made a slight mark on the under side of each bell in turn; then squinted at them, one after another. On the inside of the top bell—the largest— he found something— a mark, a symbol perhaps— but it seemed meaningless to Hatch and Doctor Perdue, who were peering over his shoulder.

It was merely a circle with three upward rays and three dots inside it.

“The manufacturer’s mark, perhaps,” Hatch suggested.

“Of course, it’s impossible that the bell could have had anything to do—” Doctor Perdue began.

“Nothing is impossible, Perdue,” snapped the scientist crabbedly. “Do not say that. It annoys me exceedingly.” He continued to stare at the symbol. “Just where was the body found?” he asked after a little.

“Here,” replied Doctor Perdue, and he indicated a spot near the window.

The Thinking Machine measured the distance with his eye.

“The only real problem here,” he remarked musingly, after a moment, as if supplementing a previous statement, “is what made him lock the door and run?”

“What made— who?” Hatch asked eagerly.

The Thinking Machine merely squinted at him, through him, beyond him with glassy eyes. His thoughts seemed far away and the cobwebby lines in his forehead grew deeper. Doctor Perdue was apparently at the moment too self-absorbed to heed.

“Now, Perdue,” demanded The Thinking Machine suddenly, “what is really the matter with Mr. Phillips?”

“Well, it’s rather—” he started haltingly, then went on as if his mind were made up: “You know, Van Dusen, there’s something back of all this that hasn’t been told, for reasons which I consider good ones. It might interest you, because you are keen on these things, but I doubt if it would help you. And

besides, I should have to insist that you alone should hear it."

He glanced meaningly at Hatch, whom he knew to be present only in his capacity as reporter.

"There's something else— about the bell," said The Thinking Machine quickly. It was not a question, but a statement.

"Yes, about the bell," acquiesced the physician, as if a little surprised that the other should know. "But as I said it—"

"I undertook to get at the facts here to aid Mr. Hatch," explained The Thinking Machine; "but I can assure you he will print nothing without my permission."

Doctor Perdue looked at the newspaperman inquiringly; Hatch nodded.

"I guess perhaps it would be better for you to hear it from Phillips himself," went on the physician. "Come along. I think he would be willing to tell you."

Thus the scientist and the reporter met Franklin Phillips. He was in bed. The once masterful financier seemed but a shadow of what he had been. His strong face was now white and haggard, and lined almost beyond recognition. The lips were pale, the hands nervously clutched at the sheet, and in his eyes was horror— hideous horror. They glittered at times, and only at intervals reflected the strength, the power which once lay there. His present condition was as pitiable as it was inexplicable to Hatch, who remembered him as the rugged storm-centre of half a dozen spectacular financial battles.

Mr. Phillips talked willingly— seemed, indeed, relieved to be able to relate in detail those circumstances which, in a way, accounted for his utter collapse. As he went on volubly, yet coherently enough, his roving eyes settled on the petulant, inscrutable face of The Thinking Machine as if seeking, above all things, belief. He found it, for the scientist nodded time after time, and gradually the lines in the dome-like forehead were dissipated.

"Now I know why he ran," declared the scientist positively, enigmatically. The remark was hopelessly without meaning to

the others. "As I understand it, Mr. Phillips," he asked, "the east window was always open when the bell sounded?"

"Yes, I believe it was, always," replied Mr. Phillips after a moment's thought.

"And you always heard it when the window was open?"

"Oh, no," replied the financier. "There were many times when the window was open that I didn't hear anything."

A fleeting bewilderment crossed the scientist's face, then was gone.

"Of course, of course," he said after a moment. "Stupid of me. I should have known that. Now, the first time you ever noticed it the bell rang twice— that is, twice with an interval of, say, a few seconds between?"

"Yes."

"And you had had the gong, then, two or three months?"

"About three months— yes."

"The weather remained cool during that time? Late winter and early spring?"

"I presume so. I don't recall. I know the first time I heard the bell was an early, warm day of spring, because my window had not previously been opened."

The Thinking Machine was dreamily squinting upward. As he stared into the quiet, narrow eyes a certain measure of confidence seemed to return to Mr. Phillips. He raised himself on an elbow.

"You say that once you heard the bell ring late at night— twice. What were the circumstances?"

"That was the night preceding a day of some important operations I had planned," explained Mr. Phillips, "and I was in the little room for a long time after midnight going over some figures."

"Do you remember the date?"

"Perfectly. It was Tuesday, the eleventh of this month,"— and, for an instant, memory called to Mr. Phillips' face an expression which financial foes know well. "I remember,

because next day I forced the market up to a record price on some railway stocks I control."

The Thinking Machine nodded.

"This servant of yours who is missing, Francis, was rather a timid sort of man, I imagine."

"Well, I could hardly say," replied Mr. Phillips doubtfully.

"Well, he was," declared The Thinking Machine flatly. "He was a good servant, I dare say?"

"Yes, excellent."

"Would it have been within his duties to close a window which might have been left open at night?"

"Certainly."

"Rather a big man?"

"Yes, six feet or so—two hundred and ten pounds, perhaps."

"And Mr. Matsumi was, of course, small?"

"Yes, small even for a Japanese."

The Thinking Machine arose and placed his fingers on Mr. Phillips' wrist. He stood thus for half a minute.

"Did you ever notice any odor after the bell rang?" he inquired at last.

"Odor?" Mr. Phillips seemed puzzled. "Why, I don't see what an odor would have to do—"

"I didn't expect you to," interrupted The Thinking Machine crustily. "I merely want to know if you noticed one."

"No," retorted Mr. Phillips shortly.

"And could you explain your precise feelings?" continued the scientist. "Did the effect of the bell's ringing seem to be entirely mental, or was it physical? In other words, was there any physical exaltation or depression when you heard it?"

"It would be rather difficult to say— even to myself," responded Mr. Phillips. "It always seemed to be a shock, but I suppose it was really a mental condition which reacted on my nerves."

The Thinking Machine walked over to the window and stood with his back to the others. For a minute or more he remained

there, and three eager pairs of eyes were fixed inquiringly on the back of his yellow head. Beneath the irritated voice, behind the inscrutable face, in the disjointed questioning, they all knew intuitively there was some definite purpose, but to none came a glimmer of light as to its nature.

"I think, perhaps, the matter is all clear now," he remarked musingly at last. "There are two vital questions yet to be answered. If the first of these is answered in the affirmative, I know that a mind— I may say a Japanese mind— of singular ingenious quality conceived the condition which brought about this affair; if in the negative, the entire matter becomes ridiculously simple."

Mr. Phillips was leaning forward, listening greedily. There was hope and fear, doubt and confidence, eagerness and a certain tense restraint in his manner. Doctor Perdue was silent; Hatch merely waited.

"What made the bell ring?" demanded Mr. Phillips.

"I must find the answer to the two remaining questions first," returned The Thinking Machine.

"You mentioned a Japanese," said Mr. Phillips. "Do you suspect Mr. Matsumi of any connection with the— the mystery?"

"I never suspect persons of things, Mr. Phillips," said The Thinking Machine curtly. "I never suspect— I always *know*. When I *know* in this case I shall inform you. Mr. Hatch and I are going out for a few minutes. When we return the matter can be disposed of in ten minutes."

He led the way out and along the hall to the little room where the gong hung. Hatch closed the door as he entered. Then for the third time the scientist examined the bells. He struck the fifth violently time after time, and after each stroke he thrust an inquisitive nose almost against it and sniffed. Hatch stared at him in wonderment. When the scientist had finished he shook his head as if answering a question in the negative. With Hatch following he passed out into the street.

"What's the *matter* with Phillips?" the reporter ventured, as they reached the sidewalk.

"Scared, frightened," was the tart rejoinder. "He's merely morbidly anxious to account for the bell's ringing. If I had been absolutely certain before I came out I should have told him. I am certain now. You know, Mr. Hatch, when a thing is beyond immediate understanding it instantly suggests the supernatural to some minds. Mr. Phillips wouldn't confess it, but he sees back of the ringing of that bell some uncanny power— a threat, perhaps— and the thing has preyed upon him until he's nearly insane. When I can arrange to make him understand perfectly why the bell rings he will be all right again."

"I can readily see how the ringing of the bell strikes one as uncanny," Hatch declared grimly. "Have you an idea what causes it?"

"I *know* what causes it," returned the other irritably. "And if you don't know you're stupid."

The reporter shook his head hopelessly.

They crossed the street to the big apartment-house opposite, and entered. The Thinking Machine inquired for and was shown into the office of the manager. He had only one question.

"Was there a ball, or reception, or anything of that sort held in this building on Tuesday night, the eleventh of this month?" he inquired.

"No," was the response. "There has never been anything of that sort here."

"Thanks," said The Thinking Machine. "Good-day."

Turning abruptly he left the manager to figure that out as best he could, and, with Hatch following, ascended the stairs to the next floor. Here was a wide, airy hallway extending the full length of the building. The Thinking Machine glanced neither to right nor left; he went straight to the rear, where a plate-glass window enframed a panorama of the city. From where they stood the city's roofs slanted down toward the heart of the

business district, half a mile away.

As Hatch looked on The Thinking Machine took out his watch and set it two and a half minutes forward, after which he turned and walked to the other end of the hall. Here, too, was a plate-glass window. For just a fraction of an instant he stood staring straight out at the Phillips' home across the way; then, without a word, retraced his steps down the stairs and into the street.

Hatch's head was overflowing with questions, but he choked them back and merely trailed along. They reentered the Phillips' house in silence. Doctor Perdue and Harvey Phillips met them in the hallway. An expression of infinite relief came into the physician's face at the sight of The Thinking Machine.

"I'm glad you're back so soon," he said quickly. "Here's a new development and a singular one." He referred evidently to a long envelope he held. "Step into the library here."

They entered, and Doctor Perdue carefully closed the door behind them.

"Just a few minutes ago Harvey received a sealed envelope by mail," he explained. "It inclosed this one, also sealed. He was going to show it to his father, but I didn't think it wise because of—because—"

The Thinking Machine took the envelope in one slender hand and examined it. It was a perfectly plain white one, and bore only a single line written in a small, copper-plate hand with occasional unexpected angles:

"To be opened when the fifth bell rings eleven times."

Something as nearly approaching complacent satisfaction as Hatch had ever seen overspread the petulant countenance of The Thinking Machine, and a long, aspirated "Ah!" escaped the thin lips. There was a hushed silence. Harvey Phillips, to whom nothing of the mystery was known beyond the actual death of Wagner, sought to read what it all meant in Doctor Perdue's face. In turn Doctor Perdue's eyes were fastened on The Thinking Machine.

"Of course, you don't know whom this is from, Mr. Phillips?"

inquired the scientist of the young man.

"I have no idea," was the reply. "It seemed to amaze Doctor Perdue here, but, frankly, I can't imagine why."

"You don't know the handwriting?"

"No."

"Well, I do," declared The Thinking Machine emphatically. "It's Mr. Matsumi's." He glared at the physician. "And in it lies the key to this affair of the bell. The mere fact that it came at all proves everything as I saw it."

"But it can't be from Matsumi," protested the young man. "The postmark on the outside was Cleveland."

"That means merely that he is running away to escape arrest on a charge of murder."

"Then Matsumi killed Wagner?" Hatch asked quickly.

"I didn't say it was a confession," responded the scientist curtly. "It is merely a history of the bell. I dare say—"

Suddenly the door was thrown open and Mrs. Phillips entered. Her face was ashen.

"Doctor, he is worse— sinking rapidly!" she gasped. "Please come!"

Doctor Perdue glanced from her pallid face to the impassive Thinking Machine.

"Van Dusen," he said solemnly, "if you can do anything to explain this thing, do it now. I know it will save a man's reason—it might save his life."

"Is he conscious?" inquired the scientist of Mrs. Phillips.

"No, he seems to have utterly collapsed," she explained. "I was talking to him when suddenly he sat up in bed as if listening, then shrieked something I didn't understand and fell back unconscious."

Doctor Perdue was dragged out of the room by the wife and son. The Thinking Machine glanced at his watch. It was three and a half minutes past four o'clock. He nodded, then turned to Hatch.

"Please go into the little room and close the window," he

instructed. "Mr. Phillips has heard the bell again, and I imagine Doctor Perdue needs me. Meanwhile, put this envelope in your pocket." And he handed to Hatch the mysterious sealed packet.

IT WAS twenty minutes past nine o'clock that evening. In the little room where the gong hung were Franklin Phillips, pale and weak, but eager; Doctor Perdue, The Thinking Machine, Harvey Phillips and Hatch. For four hours Doctor Perdue and the scientist had labored over the unconscious financier, and finally a tinge of color returned to the pale lips; then came consciousness.

"It was my suggestion, Mr. Phillips, that we are here," explained The Thinking Machine quietly. "I want to show you just why and how the bell rings, and incidentally clear up the other points of the mystery. Now, if I should tell you that the bell will sound a given number of times at a given instant, and it *should* sound, you would know that I was aware of the cause?"

"Certainly," assented Mr. Phillips eagerly.

"And then if I demonstrated tangibly *how* it sounded you would be satisfied?"

"Yes, of course— yes."

"Very good." And the scientist turned to the reporter: "Mr. Hatch, 'phone the Weather Bureau and ask if there was a storm about midnight preceding the finding of Wagner's body; also if there was thunder. And get the direction and velocity of the wind. I know, of course, that there *was* thunder, and that the wind was either from the east, or there was no wind. I *know* it, not from personal observation, but by the pure logic of events."

The reporter nodded.

"Also I will have to ask you to borrow for me somewhere a violin and a champagne-glass."

There happened to be a violin in the house. Harvey Phillips went for it, and Hatch went to the 'phone. Five minutes later he reappeared; Harvey Phillips had preceded him.

"Light wind from the east, four miles an hour," Hatch reported tersely. "The storm threatened just before midnight. There was vivid lightning and heavy thunder."

To prosaic Doctor Perdue these preliminaries smacked a little of charlatanry. Mr. Phillips was interested, but impatient. The Thinking Machine, watch in hand, lay back in his chair, squinting steadily upward.

"Now, Mr. Phillips," he announced, "in just thirty-three and three-quarter minutes the bell will ring. It will sound ten times. I am taking pains to reproduce the exact conditions under which the bell has always sounded since you have known it, because if I show you there can be no doubt."

Mr. Phillips was leaning forward, gripping the arms of his chair.

"Meanwhile, I will reconstruct the events, not as they *might* have happened, but as they *must* have happened," continued The Thinking Machine. "They will not be in sequence, but as they were revealed to me by each added fact, for logic, Mr. Phillips, is only a sum in arithmetic, and the answer based on every known

fact must be correct as inevitably as that two and two make four — not *sometimes*, but *all* the time.

“Well, a man was found dead here— shot. His mere presence indicated burglary. The open window showed how he probably entered. Considering only these superficial facts, we see instantly that more than *one* person might have entered that window. Yet it is hardly likely that two thieves entered, and one killed the other before they got their booty, for nothing was stolen, and it is still less likely that one man came here to commit suicide. What then?

“The blood mark on the bell. It was made by a human hand. Yet a man shot instantly dead could not have made it. Therefore we *know* there was another person. The door locked on the outside absolutely confirmed this. Ordinarily, I dare say, the door is never locked? No? Then who locked it? Certainly not a second thief, for he would not have risked escaping through the house after a shot which, for all he knew, had aroused every one. Ergo, some one in the house locked the door. Who?

“One of your servants, Giles Francis, is missing. Did he hear some one in the room? No, for he would have alarmed the household. What happened to him? Where is he? There is, of course, a chance that he ran out to find an officer and was disposed of in some way by an outside confederate of the man inside. But remember, please, the last we know of him he was asleep in bed. The vital point, therefore, is, what aroused him? From that we can easily develop his subsequent actions.”

The Thinking Machine paused and glanced casually at his watch, then toward the east window, which was open with the screen in.

“We *know*,” he resumed, “that if Francis had been aroused by burglars, or by a sound which he attributed to burglars, he would have awakened other servants. We must suppose he was awakened by *some* noise. What is most probable? Thunder! That would account for his every act. So let’s say for the moment that it was thunder, that he remembered this window was open,

partially dressed himself and came here to close it. This was, we will also presume, just before midnight. He met Wagner here, and in some way got Wagner's revolver. Then the fatal shot was fired.

"From this point, as the facts developed, Francis' acts became more difficult of comprehension. I could readily see how, when Wagner fell, Francis might have placed his hand over the heart to see if he were dead, and thus stained his hands; but why did Francis then smear blood on the fifth bell of the gong, leave this room, locking the door behind him, and run into the street? In other words, why did he lock the door and run?

"I had already attached considerable importance to the gong, primarily because of the blood, and had examined the bells closely. I even scratched them to assure myself that they were bronze and not a precious metal which would attract thieves. Then, Mr. Phillips, I heard your story, and instantly I knew *why* Francis locked the door and ran. It was because he was frightened—horribly, unspeakably frightened. Naturally there was a nerve-racking shock when he found he had killed a man. Then as he stood, horror-stricken perhaps, the bell rang. It affected him as it did you, Mr. Phillips, but under circumstances which were inconceivably more terrifying to a timid man. The bell rang six, seven, eight— perhaps a dozen times. To Francis, looking down upon a man he had killed, it was maddening, inexplicable. He placed his hand on it to stop the sound, then, crazed with terror, ran out of the room, locking the door behind him, and out of the house. The outer door closed with a spring-lock. He will return in time, because, of course, he was justified in killing Wagner."

Again The Thinking Machine glanced at his watch. Eighteen minutes of the specified thirty-three had elapsed.

"Now, as to the bell itself," he went on, "its history is of no consequence. It's Japanese and we know it's extremely old. We must assume from Mr. Matsumi's conduct that it is an object of — of, say, veneration. We can imagine it hanging in a temple;

perhaps it rang there, and awed multitudes listened. Perhaps they regarded it as prophetic. After its disappearance from Japan—we don't know how— Mr. Matsumi was naturally amazed to see it here, and was anxious to buy it. You refused to listen to him, Mr. Phillips. Then he went to Wagner and offered, we'll say, several thousand dollars for it. That accounts for Wagner's letters and his presence here. He came to steal the thing which he couldn't buy. His denial of all knowledge of the bell is explained readily by Detective Mallory's statement that he had long been suspected of handling stolen goods. He denied because he feared a trap.

"I may add that I attributed an ingenuity of construction to the bell which it did not possess. When I asked if you ever noted any odor when it sounded, Mr. Phillips, I had an idea that perhaps your present condition had been brought about by a subtle poison in which the gong had once been immersed, particles of which, when the bell sounded, might have been cast off and drawn into the lungs. I can assure you, however, that there was no poison. That is all, I think."

"But the sealed letter—" began Doctor Perdue.

"Oh, I opened that," was the casual rejoinder; but Doctor Perdue, as he looked, read a warning in the scientist's face. "It related to another matter entirely."

Doctor Perdue gazed at him a moment and understood. Unconsciously Hatch felt of the pocket where he had placed the letter. It was still there. He, too, understood. The Thinking Machine arose, glanced out of the window, then turned to the reporter.

"Now, Mr. Hatch," he requested, "please go across the street to the apartment-house, and open the rear window in the hall where we were. See that it remains open for twenty minutes; then return here. Keep out of the hall while the window is open, and if possible, keep others out."

Without a word or question, Hatch went out. The Thinking Machine dropped back into his chair, glanced at his watch, then

scribbled something on a card which he handed to Doctor Perdue.

"By the way," he remarked irrelevantly, "there's an excellent compound for nervous indigestion I ran across the other day."

Doctor Perdue read the card. On it was:

"Letter dangerous. Probably predicts death. Has religious significance. Would advise Phillips not be informed."

"I'll try it some time," remarked Doctor Perdue.

There was a silence of two or three minutes. The Thinking Machine was idly twirling his watch in his slender fingers; Mr. Phillips sat staring at the bell, but there was no longer fright in his manner; it seemed rather curiosity.

"In just three minutes," said The Thinking Machine at last. A pause. "Now, two!" Again a pause. "Now, one! Be perfectly calm and listen!" Another pause, then suddenly: "Now!"

"Boom!" rang the bell, as if echoing the word. Despite himself, Mr. Phillips started a little, and the scientist's fingers closed on his pulse. "Boom!" again came the note. The bell hung motionless; the musical clangor seemed to roll out methodically, rhythmically. Three! Four! Five! Six! Seven! Eight! Nine! Ten!

When the last note sounded, The Thinking Machine was staring into Mr. Phillips' face, seeking understanding. He found only bewilderment, and with quick impatience picked up the violin and bow.

"Here!" he exclaimed curtly. "Watch the champagne glass."

He tapped the fragile glass, and it sang shrilly. Then, on the violin, he sought the accompanying chord. Four times he drew the bow across the strings, and the glass was silent. Then the violin caught the pitch and the glass, three or four feet away, sang with it. Louder and louder the violin note grew, then suddenly, with a crash, the thin receptacle collapsed, shattered, tumbled to pieces before their eyes. Mr. Phillips stared in the utmost astonishment.

"A little demonstration in natural philosophy," explained The Thinking Machine. "In other words, vibration. Vibration sounded the glass, just as vibration sounded the bell on the gong there. You saw me sound the glass; the note which sounds the bell is a clock on a direct line half a mile away due east."

Mr. Phillips stared first at the shattered glass, then at the scientist. After a moment he understood, and an inexpressible feeling of relief swept over him.

"But the bell didn't always sound when the window was open," objected Doctor Perdue, after a moment.

"The bell can only sound when this window and both hall windows on the second floor across the way are open— on warm nights, for instance," replied The Thinking Machine. "Then, too, the wind must be from the east, or else there must be none. A gust of air, a person passing through the hall, any one of a dozen things would interrupt the sensitive sound-waves and prevent all strokes of the clock reaching the bell here, while some of them might. Of course, any bell on the gong may be sounded with a violin, or, if they are true notes, with a piano, and I knew this at first. But Mr. Phillips had once heard the bell long after midnight—say two o'clock in the morning. Pianos and violins are not going so late, except perhaps at a ball. There was no ball across the street that night; therefore we came to the obvious remainder— a clock. It is visible from the rear window of the second-floor hall over there. It's all logic, logic!"

There was a pause. Doctor Perdue, looking into the face of his patient, was reassured by what he saw there, and something of his own professional jocundity asserted itself.

"Instead of being a thing to make you nervous, Phillips," he said at last with a smile, "it seems to me that the bell is an excellent and reliable timepiece."

Mr. Phillips glanced at him quickly and the drawn, white face was relieved by a slight smile. After a while Hatch returned and for some time the little party sat in the room talking over the affair. Their conversation was interrupted at last by the clangor

of the bell, and every person present rose and stared at it anew with the exception of The Thinking Machine. His squint eyes were still turned upward— he didn't even alter his position. There were eleven strokes of the bell, then silence.

"Eleven o'clock," remarked The Thinking Machine placidly. "You left the windows open over there, Mr. Hatch."

Hatch nodded.

Mr. Phillips was in bed sleeping when Doctor Perdue and The Thinking Machine, accompanied by Hatch, went away.

"Suppose we drop in at my place and look at that letter?" suggested the doctor.

The Thinking Machine, in Doctor Perdue's office, took the sealed packet from the reporter and opened it. Doctor Perdue was peering over his shoulder. The scientist squinted down the page with inscrutable face, then crumpled up the letter, struck a match and ignited it.

"But— but—" protested Doctor Perdue quickly, and Hatch saw that some strange pallor suddenly overspread his face, "it said that— that eleven strokes meant— meant—"

"You're a fool, Perdue!" snapped The Thinking Machine, and he glared straight into the physician's eyes. "Didn't I show why and how the bell rang? Do you expect me to account for every barbaric superstition of a half-civilized race regarding the bell."

The paper burned, and The Thinking Machine crumpled up the ashes and dropped them in a waste-basket.

TWO DAYS later Franklin Phillips was himself again; on the fourth day he appeared at his office. On the sixth the market began to feel the master's clutch; on the eighth Francis was taken into custody and related a story identical with that told by The Thinking Machine to account for his disappearance; on the eleventh Franklin Phillips was found dead in bed. On his forehead was a pallid, white spot, faintly visible. It was a circle with three dots inside and three rays extending out from it.

42: Problem of the Green Eyed Monster

With coffee cup daintily poised in one hand, Mrs. Lingard van Safford lifted wistful, bewitching eyes towards her husband, who sat across the breakfast table partially immersed in the morning papers.

“Are you going out this morning?” she inquired.

Mr. van Safford grunted inarticulately.

“May I inquire,” she went on placidly, and a dimple snuggled at a corner of her mouth, “if that particular grunt means that you are or are not?”

Mr. van Safford lowered his newspaper and glanced at his wife’s pretty face. She smiled charmingly.

“Really, I beg your pardon,” he apologized, “I hardly think I will go out. I feel rather listless, and I must write some letters. Why?”

“Oh, nothing particularly,” she responded.

She took a last sip of her coffee, brushed two or three tiny crumbs from her lap, laid her napkin aside, and arose. Once she turned and glanced back; Mr. van Safford was reading again.

After a while he finished the papers and stood looking out a window, yawning prodigiously at the prospect of letters to be written. His wife entered and picked up a handkerchief which had fallen beside her chair. He merely glanced around. She was dressed for the street— immaculately, stunningly gowned as only a young and beautiful and wealthy woman can gown herself.

“Where are you going, my dear?” he inquired, languidly.

“Out,” she responded archly.

She passed through the door. He heard her step and the rustle of her skirts in the hall, then he heard the front door open and close. For some reason, not quite clear even to himself, it surprised him; she had never done a thing like that before. He walked to the front window and looked out. His wife went

straight down the street, and turned the first corner. After a time he wandered away to the library to nurse an emotion he had never felt before. It was curiosity.

Mrs. van Safford did not return home for luncheon, so he sat down alone. Afterwards he mouched about the house restlessly for an hour or so, then he went down town. He appeared at home again just in time to dress for dinner.

"Has Mrs. van Safford returned?" was his first question of Baxter, who opened the door.

"Yes, sir, half an hour ago," responded Baxter. "She's dressing."

Mr. van Safford ran up the steps to his own apartments. At dinner his wife was radiant, rosily radiant. The flush of perfect health was in her checks and her eyes sparkled beneath their long lashes. She smiled brilliantly upon her husband. To him it was all as if some great thing had been taken out of his life, leaving it desolate, then as suddenly returned. Unnamed emotions struggled within him prompted by that curiosity of the morning, and a dozen questions hammered insistently for answers, But he repressed them gallantly, and for this he was duly rewarded.

"I had such a delightful time to-day!" his wife exclaimed, after the soup. "I called for Mrs. Blacklock immediately after I left here, and we were together all day shopping. We had luncheon down town."

Oh! That was it! Mr. van Safford laughed outright from a vague sense of relief which he could not have called by name, and toasted his wife silently by lifting his glass. Her eyes sparkled at the compliment. He drained the glass, snapped the slender stem in his fingers, laughed again and laid it aside. Mrs. van Safford dimpled with sheer delight.

"Oh, Van, you silly boy!" she reproved softly, and she stroked the hand which was prosaically reaching for the salt.

It was only a little while after dinner that Mr. van Safford excused himself and started for the club, as usual. His wife

followed him demurely to the door and there, under the goggling eyes of Baxter, he caught her in his arms and kissed her impetuously, fiercely even. It was the sudden outbreak of an impulsive nature— the sort of thing that makes a woman know she is loved. She thrilled at his touch and reached two white hands forward pleadingly. Then the door closed, and she stood staring down at the tip of her tiny boot with lowered lids and a little, melancholy droop at the corners of her mouth.

It was after ten o'clock when Mr. van Safford awoke on the following morning. He had been at his club late-until after two- and now drowsily permitted himself to be overcome again by the languid listlessness which is the heritage of late hours. At ten minutes past eleven he appeared in the breakfast room.

"Mrs. van Safford has been down I suppose?" he inquired of a maid.

"Oh yes, sir," she replied. "She's gone out."

Mr. van Safford lifted his brows inquiringly.

"She was down a few minutes after eight o'clock, sir," the maid explained, "and hurried through her breakfast."

"Did she leave any word?"

"No, sir."

"Be back to luncheon?"

"She didn't say, sir."

Mr. van Safford finished his breakfast silently and thoughtfully. About noon he, too, went out. One of the first persons he met down town was Mrs. Blacklock, and she rushed toward him with outstretched hand.

"I'm so glad to see you," she bubbled, for Mrs. Blacklock was of that rare type which can bubble becomingly. "But where, in the name of goodness, is your wife? I haven't seen her for weeks and weeks?"

"Haven't seen her for—" Mr. van Safford repeated, slowly.

"No," Mrs. Blacklock assured him. "I can't imagine where she is keeping herself."

Mr. van Safford gazed at her in dumb bewilderment for a

moment, and the lines about his mouth hardened a little despite his efforts to control himself.

"I had an impression," he said deliberately, "that you saw her yesterday—that you went shopping together?"

"Goodness, no. It must be three weeks since I saw her."

Mr. van Safford's fingers closed slowly, fiercely, but his face relaxed a little, masking with a slight smile, a turbulent rush of mingled emotions.

"She mentioned your name," he said at last, calmly.

"Perhaps she said she was going to call on you. I misunderstood her."

He didn't remember the remainder of the conversation, but it was of no consequence at the moment. He had not misunderstood her, and he knew he had not. At last he found himself at his club, and there idle guesses and conjectures flowed through his brain in an unending stream. Finally he arose, grimly.

"I suppose I'm an ass," he mused. "It doesn't amount to anything, of course, but—"

And he sought to rid himself of distracting thoughts over a game of billiards; instead he only subjected himself to open derision for glaringly inaccurate play. Finally he flung down the cue in disgust, strode away to the 'phone and called up his home.

"Is Mrs. van Safford there?" he inquired of Baxter.

"No, sir. She hasn't returned yet."

Mr. van Safford banged the telephone viciously as he hung up the receiver. At six o'clock he returned home. His wife was still out. At half past eight he sat down to dinner, alone. He didn't enjoy it; indeed hardly tasted it. Then, just as he finished, she came in with a rush of skirts and a lilt of laughter. He drew a long breath, and set his teeth.

"You poor, deserted dear!" she sympathized, laughingly.

He started to say something, but two soft, clinging arms were about his neck, and a velvety cheek rested against his own,

so-so he kissed her instead. And really he wasn't at all to be blamed. She sighed happily, and laid aside her hat and gloves.

"I simply couldn't get here any sooner," she explained poutingly as she glanced into his accusing eyes. "I was out with Nell Blakesley in her big, new touring car, and it broke down and we had to send for a man to repair it, so--"

He didn't hear the rest; he was staring into her eyes, steadily, inquiringly. Truth shone triumphant there; he could only believe her. Yet-yet-that other thing! She hadn't told him the truth! In her face, at last, he read uneasiness as he continued to stare, and for a moment there was silence.

"What's the matter, Van?" she inquired solicitously. "Don't you feel well?"

He pulled himself together with a start and for a time they chatted of inconsequential things as she ate. He watched her until she pushed her dessert plate aside, then casually, quite casually:

"I believe you said you were going to call on Mrs. Blacklock to-morrow?"

She looked up quickly.

"Oh no," she replied. "I was with her all day yesterday, shopping. I said I had called on her."

Mr. van Safford arose suddenly, stood glaring down at her for an instant, then turning abruptly left the house. Involuntarily she had started up, then she sat down again and wept softly over her coffee. Mr. van Safford seemed to have a very definite purpose for when he reached the club he went straight to a telephone booth, and called Miss Blakesley over the wire.

"My wife said something about-something about—" he stammered lamely, "something about calling on you to-morrow. Will you be in?"

"Yes, and I'll be so glad to see her," came the reply. "I'm dreadfully tired of staying cooped up here in the house, and really I was beginning to think all my friends had deserted me."

"Cooped up in the house?" Mr. van Safford repeated. "Are

you ill?"

"I have been," replied Miss Blakesley. "I'm better now, but I haven't been out of the house for more than a week."

"Indeed!" remarked Mr. van Safford, sympathetically. "I'm awfully sorry, I assure you. Then you haven't had a chance to try your-your-'big new touring car'?"

"Why, I haven't any new touring car," said Miss Blakesley. "I haven't any sort of a car. Where did you get that idea?"

Mr. van Safford didn't answer her; rudely enough he hung up the telephone and left the club with a face like marble. When finally he stopped walking he was opposite his own house. For a minute he stood looking at it much as if he had never seen it before, then he turned and went back to the club. There was something of fright, of horror even, in his white face when he entered.

As Mr. van Safford did not go to bed that night it was not surprising that his wife should find him in the breakfast room when she came down about eight o'clock. She smiled. He stared at her with a curt: "Good morning!" Then came an ominous silence. She finished her breakfast, arose and left the house without a word. He watched her from a window until she disappeared around the corner, just four doors below, then overcome by fears, suspicions, hideous possibilities, he ran out of the house after her.

She had not been out of his sight more than half a minute when he reached the corner, yet now-now she was gone. He looked on both sides of the street, up and down, but there was no sign of her-not a woman in sight. He knew that she would not have had time to reach the next street below, then he readily saw the two obvious possibilities. One was that she had stepped into a waiting cab and been driven away at full speed; another that she had entered one of the nearby houses. If so, which house? Who did she know in this street? He turned the problem over in his mind several times, and then he was convinced that she had hurried away in waiting cab. That emotion which had

begun as curiosity was now a raging, turbulent torrent.

On the following morning Mrs. van Safford came down to breakfast at fifteen minutes of eight. She seemed a little tired, and there was a trace of tears about her eyes. Baxter looked at her curiously.

"Has Mr. van Safford been down yet?" she asked.

"No, Madam," he replied.

"Did he come in at all last night?"

"Yes, Madam. About half past two, I let him in. He had forgotten his key."

Now as a matter of fact at that particular moment Mr. van Safford was standing just around the corner, four doors down, waiting for his wife. Just what he intended to do when she appeared was not quite clear in his mind, but the affair had gone to a point where he felt that he must do something. So he waited impatiently, and smoked innumerable cigars. Two hours passed. He glanced around the corner. No one in sight. He strolled back to the house, and met Baxter in the hall.

"Has Mrs. van Safford come down?" he asked of the servant.

"Yes, sir," was the reply. "She went out more than an hour ago."

MARTHA opened the door.

"Please, sir," she said, "there's a young gentleman having a fit in the reception room."

Professor Augustus S. F. X. Van Dusen-The Thinking Machine—turned away from his laboratory table and squinted at her aggressively. Her eyes were distended with nervous excitement, and her wrinkled hands twisted the apron she wore.

"Having a fit?" snapped the scientist.

"Yes, sir," she gasped.

"Dear me! Dear me! How annoying!" expostulated the man of achievement, petulantly. "Just what sort of a fit is it—epileptic, apoplectic, or merely a fit of laughter?"

"Lord, sir, I don't know," Martha confessed helplessly. "He's

just a-walking and a-talking and a-pulling his hair, sir.”

“What name?”

“I-I forgot to ask, sir,” apologized the aged servant, “it surprised me so to see a gentleman a-wiggling like that. He said, though he’d been to Police Headquarters and Detective Mallory sent him.”

The eminent logician dried his hands and started for the reception room. At the door he paused and peered in. With no knowledge of just what style of fit his visitor had chosen to have he felt the necessity of this caution. What he saw was not alarming— merely a good-looking young man pacing back and forth across the room with quick, savage stride. His eyes were blazing, and his face was flushed with anger. It was Mr. van Safford.

At sight of the diminutive figure of The Thinking Machine, topped by the enormous yellow head, the young man paused and his anger-distorted features relaxed into something closely approaching surprise.

“Well?” demanded The Thinking Machine, querulously.

“I beg your pardon,” said Mr. van Safford with a slight start. “I— I had expected to find a— a— rather a different sort of person.”

“Yes, I know,” said The Thinking Machine grumpily. “A man with a black moustache and big feet. Sit down.”

Mr. van Safford sat down rather suddenly. It never occurred to anyone to do other than obey when the crabbed little scientist spoke. Then, with an incoherence which was thoroughly convincing, Mr. van Safford laid before The Thinking Machine in detail those singular happenings which had so disturbed him. The Thinking Machine leaned back in his chair, with finger tips pressed together, and listened to the end.

“My mental condition— my suffering— was such,” explained Mr. van Safford in conclusion, “that when I proved to my own satisfaction that she had twice misrepresented the facts to me, wilfully, I— I could have strangled her.”

"That would have been a nice thing to do," remarked the scientist crustily. "You believe, then, that there may be another—"

"Don't say it," burst out the young man passionately. He arose. His face was dead white. "Don't say it," he repeated, menacingly.

The Thinking Machine was silent a moment, then glanced up in the blazing eyes and cleared his throat.

"She never did such a thing before?" he asked.

"No, never."

"Does she— did she— ever speculate?"

Mr. van Safford sat down again.

"Never," he responded, positively. "She wouldn't know one stock from another."

"Has her own bank account?"

"Yes— nearly four hundred thousand dollars. This was her father's gift at our wedding. It was deposited in her name, and has remained so. My own income is more than enough for our uses."

"You are rich, then?"

"My father left me nearly two million dollars," was the reply. "But this all doesn't matter. What I want—"

"Wait a minute," interrupted The Thinking Machine testily. There was a long pause. "You have never quarrelled seriously?"

"Never one cross word," was the reply.

"Remarkable," commented The Thinking Machine ambiguously. "How long have you been married?"

"Two years— last June."

"Most remarkable," supplemented the scientist. Mr. van Safford stared. "How old are you?"

"Thirty."

"How long have you been thirty?"

"Six months— since last May."

There was a long pause. Mr. van Safford plainly did not see the trend of the questioning.

"How old is your wife?" demanded the scientist.

"Twenty-two, in January."

"She has never had any mental trouble of any sort?"

"No, no."

"Have you any brothers or sisters?"

"No."

"Has she?"

"No."

The Thinking Machine shot out the questions crustily and Mr. van Safford answered briefly. There was another pause, and the young man arose and paced back and forth with nervous energy. From time to time he glanced inquiringly at the pale, wizened face of the scientist. Several thin lines had appeared in the dome-like brow, and he was apparently oblivious of the other's presence.

"It's a most intangible, elusive affair," he commented at last, and the wrinkles deepened. "It is, I may say, a problem without a given quantity. Perfectly extraordinary."

Mr. van Safford seemed a little relieved to find some one express his own thoughts so accurately.

"You don't believe, of course," continued the scientist, "that there is anything criminal in—"

"Certainly not!" the young man exploded, violently.

"Yet, the moment we pursue this to a logical conclusion," pursued the other, "we are more than likely to uncover something which is, to put it mildly, not pleasant."

Mr. van Safford's face was perfectly white; his hands were clenched desperately. Then the loyalty to the woman he loved flooded his heart.

"It's nothing of that kind," he exclaimed, and yet his own heart misgave him. "My wife is the dearest, noblest, sweetest woman in the world. And yet—"

"Yet you are jealous of her," interrupted The Thinking Machine. "If you are so sure of her, why annoy me with your troubles?"

The young man read, perhaps, a deeper meaning than The Thinking Machine had intended for he started forward impulsively. The Thinking Machine continued to squint at him impersonally, but did not change his position.

"All young men are fools," he went on, blandly, "and I may add that most of the old ones are, too. But now the question is: What purpose can your wife have in acting as she has, and in misrepresenting those acts to you? Of course we must spy upon her to find out, and the answer may be one that will wreck your future happiness. It may be, I say. I don't know. Do you still want the answer?"

"I want to know-I want to know," burst out Mr. van Safford, harshly. "I shall go mad unless I know."

The Thinking Machine continued to squint at him with almost a gleam of pity in his eyes-almost but not quite. And the habitually irritated voice was in no way softened when he gave some explicit and definite instructions.

"Go on about your affairs," he commanded. "Let things go as they are. Don't quarrel with your wife; continue to ask your questions because if you don't she'll suspect that you suspect; report to me any change in her conduct. It's a very singular problem. Certainly I have never had another like it."

The Thinking Machine accompanied him to the door and closed it behind him.

"I have never seen a man in love," he mused, "who wasn't in trouble."

And with this broad, philosophical conclusion he went to the 'phone. Half an hour later Hutchinson Hatch, reporter, entered the laboratory where the scientist sat in deep thought.

"Ah, Mr. Hatch," he began, without preliminary, "did you ever happen to hear of Mr. and Mrs. van Safford?"

"Well, rather," responded the reporter with quick interest. "He's a well known club-man, worth millions, high in society and all that; and she's one of the most beautiful women I ever saw. She was a Miss Potter before marriage."

"It's wonderful the memories you newspaper men have," observed the scientist. "You know her personally?"

Hatch shook his head.

"You must find some one who knows her well," commanded The Thinking Machine, "a girl friend, for instance— one who might be in her confidence. Learn from her why Mrs. van Safford leaves her house every morning at eight o'clock, then tells her husband she has been with some one that we know she hasn't seen. She has done this every day for four days. Your assiduity in this may prevent a divorce."

Hatch pricked up his ears.

"Also find out just what sort of an illness Miss Nell Blakesley has-or is-suffering. That's all."

An hour later Hutchinson Hatch, reporter, called on Miss Gladys Beekman, a young society woman who was an intimate of Mrs. van Safford's before the latter's marriage. Without feeling that he was dallying with the truth Hatch informed her that he called on behalf of Mr. van Safford. She began to smile. He laid the case before her emphatically, seriously and with great detail. The more he explained the more pleasantly she smiled. It made him uncomfortable but he struggled on to the end.

"I'm glad she did it," exclaimed Miss Beekman. "But I— I couldn't believe she would."

Then came a sudden gust of laughter which left Hutchinson Hatch, reporter, with the feeling that he was being imposed upon. It continued for a full minute—a hearty, rippling, musical laugh. Hatch grinned sheepishly. Then, without an excuse, Miss Beekman arose and left the room. In the hall there came a fresh burst, and Hatch heard it dying away in the distance.

"Well," he muttered grimly. "I'm glad I was able to amuse her."

Then he called upon a Mrs. Francis, a young matron whom he had cause to believe was also favoured with Mrs. van Safford's friendship. He laid the case before her, and she

laughed! Then Hutchinson Hatch, reporter, began to get mule-headed about it. He visited eight other women who were known to be on friendly terms with Mrs. van Safford. Six of them intimated that he was an impertinent, prying, inquisitive person, and the other two laughed! Hatch paused a moment and rubbed his fevered brow.

"Here's a corking good joke on somebody," he told himself, "and I'm beginning to think it's me."

Whereupon he took his troubles to The Thinking Machine. That distinguished gentleman listened in pained surprise to the simple recital of what Hatch had not been able to learn, and spidery wrinkles on his forehead assumed the relative importance of the canals on Mars.

"It's astonishing!" he declared, raspily.

"Yes, it so struck me," agreed the reporter.

The Thinking Machine was silent for a long time; the watery blue eyes were turned upward and the slender white fingers pressed tip to tip. Finally he made up his mind as to the next step.

"There seems only one thing to do," he said. "And I won't ask you to do that."

"What is it?" demanded the reporter.

"To watch Mrs. van Safford and see where she goes."

"I wouldn't have done it before, but I will now." Hatch responded promptly. The bull-dog in him was aroused. "I want to see what the joke is."

It was ten o'clock next evening when Hatch called to make a report. He seemed a little weary and tremendously disgusted.

"I've been right behind her all day," he explained, "from eight o'clock this morning until twenty minutes past nine tonight when she reached home. And if the Lord'll forgive me—"

"What did she do?" interrupted The Thinking Machine, impatiently.

"Well," and Hatch grinned as he drew out a notebook, "she walked eastward from her house to the first corner, turned,

walked another block, took a down town car, and went straight to the Public Library. There she read a Henry James book until fifteen minutes of one, and then she went to luncheon in a restaurant. I also had luncheon. Then she went to the North End on a car. After she got there she wandered around aimlessly all afternoon, nearly. At ten minutes of four she gave a quarter to a crippled boy. He bit it to see if it was good, found it was, then bought cigarettes with it. At half past four she left the North End and went into a big department store. If there's anything there she didn't price I can't remember it. She bought a pair of shoe-laces. The store closed at six, so she went to dinner in another restaurant. I also had dinner. We left there at half past seven o'clock and went back to the Public Library. She read until nine o'clock, and then went home. Phew!" he concluded.

The Thinking Machine had listened with growing and obvious disappointment on his face. He seemed so cast down by the recital that Hatch tried to cheer him.

"I couldn't help it you know," he said by way of apology. "That's what she did."

"She didn't speak to anyone?"

"Not a soul but clerks, waiters and library attendants."

"She didn't give a note to anyone or receive a note?"

"No."

"Did she seem to have any purpose at all in anything she did?"

"No. The impression she gave me was that she was killing time."

The Thinking Machine was silent for several minutes. "I think perhaps—" he began.

But what he thought Hatch didn't learn for he was sent away with additional instructions. Next morning found him watching the front of the van Safford house again. Mrs. van Safford came out at seven minutes past eight o'clock, and walked rapidly eastward. She turned the first corner and went on, still rapidly, to the corner of an alley. There she paused, cast a quick look

behind her, and went in. Hatch was some distance back and ran forward just in time to see her skirts trailing into a door.

"Ah, here's something anyhow," he told himself, with grim satisfaction.

He walked along the alley to the door. It was like the other doors along in that it led into the back hall of a house, and was intended for the use of tradesmen. When he examined the door he scratched his chin thoughtfully; then came utter bewilderment, an amazing sense of hopeless insanity. For there, staring at him from a door-plate, was the name: "van Safford." She had merely come out the front door and gone into the back!

Hatch started to rap and ask some questions, then changed his mind and walked around to the front again, and up the steps.

"Is Mrs. van Safford in?" he inquired of Baxter, who opened the door.

"No, sir," was the reply. "She went out a few minutes ago."

Hatch stared at him coldly a minute, then walked away.

"Now this is a particularly savoury kettle of fish," he soliloquized. "She has either gone back into the house without his knowledge, or else he has been bribed, and then—"

And then, he took the story to The Thinking Machine. That imperturbable man of science listened to the end, then arose and said "Oh!" three times. Which was interesting to Hatch in that it showed the end was in sight, but it was not illuminating. He was still floundering.

The Thinking Machine started into an adjoining room, then turned back.

"By the way, Mr. Hatch," he asked, "did you happen to find out what was the matter with Miss Blakesley?"

"By George, I forgot it," returned the reporter, ruefully.

"Never mind, I'll find out."

At eleven o'clock Hutchinson Hatch and The Thinking Machine called at the van Safford home. Mr. van Safford in person received them; there was a gleam of hope in his face at sight of the diminutive scientist. Hatch was introduced, then:

"You don't know of any other van Safford family in this block?" began the scientist.

"There's not another family in the city," was the reply. "Why?"

"Is your wife in now?"

"No. She went out this morning, as usual."

"Now, Mr. van Safford, I'll tell you how you may bring this matter to an end, and understand it all at once. Go upstairs to your wife's apartments— they are probably locked— and call her. She won't answer but she'll hear you. Then tell her you understand it all, and that you're sorry. She'll hear that, as that alone is what she has been waiting to hear for some time. When she comes out bring her down stairs. Believe me I should be delighted to meet so clever a woman."

Mr. van Safford was looking at him as if he doubted his sanity.

"Really," he said coldly, "what sort of child's play is this?"

"It's the only way you'll ever coax her out of that room," snapped The Thinking Machine belligerently, "and you'd better do it gracefully."

"Are you serious?" demanded the other.

"Perfectly serious," was the crabbed rejoinder. "She has taught you a lesson that you'll remember for sometime. She has been merely going out the front door every day, and coming in the back, with the full knowledge of the cook and her maid."

Mr. van Safford listened in amazement.

"Why did she do it?" he asked.

"Why?" retorted The Thinking Machine. "That's for you to answer. A little less of your time at the club of evenings, and a little less of selfish amusement, so that you can pay attention to a beautiful woman who has, previous to her marriage at least, been accustomed to constant attention, would solve this little problem. You've spent every evening at your club for months, and she was here alone probably a great part of that time. In your own selfishness you had never a thought of her, so she

gave you a reason to think of her.”

Suddenly Mr. van Safford turned and ran out of the room. They heard him as he took the stairs, two at a time.

“By George!” remarked Hatch. “That’s a silly ending to a cracking good mystery, isn’t it?”

Ten minutes later Mr. and Mrs. van Safford entered the room. Her pretty face was suffused with colour: he was frankly, outrageously happy. There were mutual introductions.

“It was perfectly dreadful of Mr. van Safford to call you gentlemen into this affair,” Mrs. van Safford apologized, charmingly. “Really I feel very much ashamed of myself for—”

“It’s of no consequence, madam,” The Thinking Machine assured her. “It’s the first opportunity I have ever had of studying a woman’s mind. It was not at all logical, but it was very-very instructive. I may add that it was effective, too.”

He bowed low, and turning picked up his hat.

“But your fee?” suggested Mr. van Safford.

The Thinking Machine squinted at him sourly. “Oh, yes, my fee,” he mused. “It will be just five thousand dollars.”

“Five thousand dollars?” exclaimed Mr. van Safford.

“Five thousand dollars,” repeated the scientist.

“Why, man, it’s perfectly absurd to talk—”

Mrs. van Safford laid one white hand on her husband’s arm. He glanced at her and she smiled radiantly.

“Don’t you think I’m worth it, Van?” she asked, archly.

He wrote the cheque. The Thinking Machine scribbled his name across the back in a crabbed little hand, and passed it on to Hatch.

“Please hand that to some charitable organization,” he directed. “It was an excellent lesson, Mrs. van Safford. Good day.”

Professor Augustus S. F. X. Van Dusen, scientist, and Hutchinson Hatch, reporter, walked along side by side for two blocks, without speaking. The reporter broke the silence.

“Why did you want to know what was the matter with Miss

Blakesley?" he asked.

"I wanted to know if she really had been ill or was merely attempting to mislead Mr. van Safford," was the reply. "She was ill with a touch of grippe. I got that by 'phone. I also learned of Mr. van Safford's club habits by 'phone from his club."

"And those women who laughed-what was the joke about?"

"The fact that they laughed made me see that the affair was not a serious one. They were intimate friends with whom the wife had evidently discussed doing just what she did do," explained the scientist. "All things considered in this case the facts could only have been as logic developed them. I imagined the true state of affairs from your report of Mrs. van Safford's day of wandering; when I knew she went in the back door of her own house, I saw the solution. Because, Mr. Hatch," and the scientist paused and shook a long finger in the reporter's face, "because two and two always make four— not some times, but all the time."

43: Problem of the Interrupted Wireless

SEVEN BELLS sounded. The door of the wireless telegraph office on the main deck of the transatlantic liner *Uranus* was opened quietly, and a man thrust his head out. One quick glance to his right, along the narrow, carpeted passage, showed it to be deserted; another glance to his left showed a young woman approaching, with steps made uncertain by the rolling and pitching of the ship. In one hand she carried a slip of paper, folded once. The man paused only to see this much, then withdrew his head and closed the door abruptly.

The young woman paused opposite the wireless office, and thoughtfully conned over something on the slip of paper. Finally she leaned against the wall, erased a word with a pencil, wrote in another, then laid a hand on the knob of the door as if to enter. The door was locked. She hesitated for an instant, then

rapped. There was a pause, and she rapped the second time.

"What is it?" came a man's voice from inside.

"I wish to send a message," responded the young woman.

"Who is that?" came another query.

"It's Miss Bellingdame," was the impatient response. "I desire to get a wireless to a friend on the Breslin which has just been sighted to the north."

Again there was a pause. "It's impossible to send any message now," came the short, harsh answer at last. "It may not be possible to send it at all."

"Why?" demanded Miss Bellingdame. "It's a matter of the utmost importance. I must send it!"

"Can't be done-it's out of the question," came the positive, quick spoken answer. "There has been an-an accident."

Miss Bellingdame was silent for a moment, as she seemed to ponder a note of deep concern, excitement even, in the voice.

"Well, can't it be sent after the accident has been repaired?" she asked at last.

There was no answer.

"Is that Mr. Ingraham talking?" Miss Bellingdame demanded.

Still there was no answer. She remained there for a minute, perhaps, staring at the locked door, then turned and retraced her steps. A few minutes later she was reclining in a deck chair, gazing thoughtfully out over the treacherous, dimpling Atlantic with a troubled expression on her face.

At just about the moment she sat down the telephone buzz in the Captain's cabin sounded, and Captain Deihl impatiently laid aside a remarkably promising pinochle hand to answer it.

"Captain Deihl?" came a short, sharp query over the wire.

"Yes."

"This is Mr. Tennell, sir. I'm in the wireless office. Can you come at once, and have someone send Dr. Maher?"

"What's the matter?" demanded the Captain gruffly.

"I can't very well tell you over the 'phone, sir," came the response; "but you and Dr. Maher are needed immediately."

With a slightly puzzled expression on his bronzed face, Captain Deihl turned to Dr. Maher, the ship's surgeon who had been his opponent in the pinochle game and now sat staring idly out of the window.

"Tennell wants both of us down in the wireless office at once," the Captain explained. "He won't say what's the matter."

"Wants me?" inquired Dr. Maher. "Somebody hurt?"

"I don't know. Come along."

Captain Deihl led the way along the hurricane deck, down to the main deck, and along the narrow passage to the wireless office. The door was still locked. He rapped sharply, impatiently.

"Who's there?" came from inside.

"Captain Deihl. Open the door!"

The key turned in the lock, and First Officer Tennell's white face-white even beneath the deep tan-appeared.

"What's the matter, Mr. Tennell?" demanded the Captain brusquely.

"Please step inside, sir," and the first officer opened the door. "There's what's the matter?"

With a gesture the first officer indicated the corner of the cabin where the wireless operator's desk stood. Sitting before it, as if he had dropped back utterly exhausted, was the operator, Charles Ingraham. His head had fallen forward on his breast, and the arms hung straight down, flabbily. His back was toward them, and against the white of his shirt, just beneath the left arm, a heavy handled knife showed. A thin line of scarlet dyed the shirt just below the knife handle.

Captain Deihl stood stockstill for one instant, then turning suddenly closed and locked the door behind him. Dr. Maher took two steps forward, wrested the knife from the wound with a slight effort, flung it on the floor, then dropped on his knees beside the chair.

"What is all this, Mr. Tennell?" demanded Captain Deihl at last.

"I don't know, sir," was the reply. "I found him like that."

Dr. Maher arose after a moment, with a hopeless shake of his head, and minutely examined the wound. It was a clean cut incision; the knife had been driven in and allowed to remain. The blade had passed between the ribs and had reached the heart. Dr. Maher noted these things, then stooped and picked up the knife. It was a long, heavy, broad bladed, dangerous looking weapon. After satisfying himself, the surgeon passed it to Captain Deihl.

"It was murder," he said tersely. "He could not have stabbed himself in that position. You keep the knife; it may be the only clue."

"Murder!" the Captain repeated involuntarily. "How long has-has he been dead?"

"Perhaps ten minutes-certainly not more than twenty," was the surgeon's reply. "The body is still warm, and the blood flows."

"Murder!" repeated Captain Deihl. "Who could have killed him? What could have been the motive?"

He stood staring at the knife silently for a time, then lifted two keen, inquisitive eyes to those of his first officer. Dr. Maher too was staring straight into Tennell's face, and slowly, under the sharp scrutiny, the blood mounted again to the tanned cheeks.

"What are your orders, sir?" inquired the first officer steadily.

"How long were you in this room, Tennell, before you called me?" asked Captain Deihl.

"Two or three minutes," was the reply. "I was in my cabin forward, preparing the dispatches which were to go ashore, according to your order, sir. The wireless was going then; for I could hear it. I noticed after a time that it stopped; so, having completed my dispatches, I brought them here directly. I found Mr. Ingraham just as you see him."

"H'm!" mused the Captain. He was still staring thoughtfully into the other's face. "Was the door locked?"

"No, sir. It was closed."

"And this knife, Mr. Tennell?" The Captain examined it again and then passed it to his first officer. "Do you know it? Have you seen it before?"

Without any apparent reason the first officer's face whitened again and he dropped down on the bench, with hands gripping each other fiercely. Dr. Maher was staring at him; Captain Deihl seemed surprised.

"You know whose knife it is then?" asked the Captain finally.

"Yes," and the first officer's head dropped forward. "It's mine."

There was a long dead silence. The hands of the first officer were working nervously, with heavy fingers threading in and out. Dr. Maher turned away suddenly and idly fingered some papers on the operator's desk.

Captain Deihl's heavy face grew set and stern. "Did you kill him, Tennell?" he asked.

"No!" Tennell burst out. "No!"

"But it is your knife?"

"It would be useless for me to deny it, sir," replied the first officer, and he arose. "It was given to me by Mr. Forbes, the second officer, only a few weeks ago, and he could identify it instantly. I lost the knife yesterday, and last night-I shall ask you to corroborate this, sir-I posted a notice in the fo'c'sle offering a reward to anyone who should find it and return it to me."

Dr. Maher turned suddenly upon them. "And isn't it true, Mr. Tennell," he demanded, "that you and Ingraham had some-serious disagreement a few days ago?"

Again the first officer's face blanched. "That is true, yes," he replied steadily. "It was a matter of ship's discipline. This was Mr. Ingraham's second trip with us, and on other ships he had been allowed certain liberties which the discipline of this ship compelled me to curtail. There was a disagreement, yes."

Dr. Maher nodded as if satisfied, and turned again to the desk.

Captain Deihl stood staring straight into the eyes of his first officer for a time, and then cleared his throat. "I want to believe you, Tennell," he admitted at last. "I have known you and believed in you for fourteen years. Now tell me why you call me here, show me this, and then admit things which-which you must confess make it look black for you. Now, Harry Tennell, if you ever in your life told me the truth, tell it now-man to man!"

The first officer read the friendliness behind the stern, commanding voice, and there was a grateful softening of the glaring eyes. "Man to man, John Deihl, I'll tell you the truth; but it's hard to believe, and I doubt if you will understand it," he said slowly, deliberately. "I did have a row with this man," and he indicated the crumpled figure in the chair,— "a nasty row in the hearing of half a dozen of the crew. That was several days ago. To-day I came here in the course of my duties, and found him like this. I recognized the knife instantly as mine-the one I had lost. I am not a coward, John Deihl,— no man knows that better than you do,— yet for a moment I was overcome by a feeling of terror. Here was the fact of the quarrel, my knife as the weapon of death, myself alone in the cabin with this man while the body was still warm. It all flashed across my mind in instant— I was frightened at the utter helplessness of my position. No one had seen me enter this cabin, I knew, and the thought came that perhaps I might leave it without being seen, keep my mouth shut, and allow some one else to discover this." The first officer paused and sought vainly to read the expressions on the faces of the two men before him.

"I even went so far as to draw the knife out of the wound, with the purpose of flinging it overboard," the first officer continued slowly; "then my senses came back. I knew my duty again. I replaced the knife in the wound, precisely as I found it, and called you. You are a severe man, but you're a just man, John Deihl, and you know I am not the man to stab another in the back; you know, John Deihl, that fourteen years with me as shipmate and fellow officer has never shown you a weak spot in

my courage; you know me, John Deihl and I know you." The voice dropped suddenly. "That's all."

Captain Deihl had stood motionless, with stern, set face and keen, cold eyes searching those of the first officer. At last he reached out a hand and gripped the one that met it. "I believe you, Harry," he said quietly.

Dr. Maher turned quickly and regarded the two with a slight cynical uplifting of his lip. "I understand then," he said unpleasantly, "that this is to be a matter of friendship rather than of evidence?"

The first officer's face flamed, and he took one step toward the surgeon, with clenched fists.

"Go to your cabin, Mr. Tennell!" ordered Captain Deihl curtly. "Remain there till further orders come from me!"

The first officer paused, involuntarily straightened himself, and lifted one hand to his cap. "Yes, sir," he said.

"And you are not to mention this matter to anyone," Captain Deihl directed.

"I understand, sir."

But news travels quickly aboard ship; so that within less than an hour the tragedy had become a matter of general discussion. Miss Bellingdame was reclining comfortably in a deck chair, when a casual acquaintance, Clarke Matthews, dropped into a seat beside her, and informed her of it. She struggled to her feet, stood staring at him dully for an instant with whitening face, swayed, and fell prone to the deck. It was fully half an hour before the stewardess and her assistants saw the eyelids flutter and open weakly; and at the end of another half hour the stewardess sought out the Captain. She found him at his desk in his cabin, with Second Officer Forbes.

"We must get those dispatches off, Mr. Forbes," the Captain was saying. "Have the ship canvassed, first and second cabin, steerage and crew, to see if by any chance there is a man, woman, or child who can operate the wireless. Attend to it at once!"

Forbes touched his cap and went out. The Captain turned to the stewardess inquiringly.

"Please, sir, Miss Bellingdame is almost insane from the shock of the murder," the stewardess informed him. "It's hard to make her keep in her state room, let alone the berth. Dr. Maher doesn't seem to be able to do her any good. She insists on seeing the body."

"Why?" asked Captain Deihl in surprise. "Was she acquainted with Ingraham?"

"She was engaged to be married to him, sir," replied the stewardess. "Poor child! I don't know what to do for her."

Captain Deihl stared at her blankly for an instant, then arose suddenly and accompanied her to Miss Bellingdame's state room. She was sitting up in her berth, pallid as the sheets about her. One of the stewardess's assistants sat near trying to soothe her.

"Is it true, Captain?" she demanded.

Captain Deihl nodded grimly.

She extended her hands convulsively and clutched his arm, then her head sank forward against it and she sobbed bitterly. "Do you know who-who did it?" she asked at last.

"We don't know, madam," he replied gently. "We are doing all we can; but—"

"Somebody told me your first officer had been arrested," she interrupted suddenly. "He is tall and dark, with a heavy moustache, isn't he?"

"Yes," replied the Captain. "Why?"

For a little while she was silent as she struggled to regain control of her voice, and then: "May I say something to you in private, Captain?"

"Do you know-do you suspect—?" he began.

"I must!" she insisted.

At a gesture from Captain Deihl the stewardess and her assistant left them alone together. Fifteen minutes later he emerged and summoned Second Officer Forbes to his cabin.

"Mr. Forbes, proceed at once to Mr. Tennell's cabin and formally place him under arrest," he ordered shortly. "You had better put him in irons, and keep an armed guard beside him day and night until we land. Don't take any chances with him."

"Yes, sir."

Two hours later Second Officer Forbes appeared in the cabin again. "We have canvassed the ship, sir," he reported. "There is not a wireless operator aboard, or even a telegraph operator."

"What is our speed?"

"A little better than seventeen knots, sir."

"We should land then about five o'clock tomorrow afternoon," the Captain mused. "Very well, Mr. Forbes; we shall have to do without an operator."

Captain Deihl paced slowly, thoughtfully, back and forth across the bridge. Above the stars glittered coldly down upon the silent, sinister sea as it slid past the Uranus in green, oily swells. The encompassing night was unbroken by a single glint of light save that which Nature gave grudgingly. The Captain gazed upon it all with unseeing eyes and grimly set lips.

Two bells sounded— one o'clock. As the echo of the last stroke was borne away on the wind Captain Deihl suddenly became conscious of the sharp, venomous hiss of the wireless. The wireless! He paused incredulously, and glanced aloft. A spark sputtered at the top of the foremast, winked and flashed and spat viciously in the rhythmic dots and dashes of the Continental code. The wireless was working! Some one was sending! The Captain knew that no sound accompanied the receipt of a message, even with the automatic attachment; therefore that sputtering and hissing was some one sending, and if that was true it meant—

He ran down the ladder to the hurricane deck, and disappeared down a companion-way to the deck below.

PROFESSOR Augustus S. F. X. Van Dusen listened to Captain Deihl's recital of the circumstances surrounding the murder of

Charles Ingraham, with a slight frown of annoyance on his wizened face. As he talked the man of the sea turned from time to time to Dr. Maher for confirmation of the facts. Each time such corroboration was given with a short nod of the head.

"Now, there are a few other little things," Captain Deihl continued deliberately, "that are not known to Dr. Maher here. For instance, I personally went to the fo'c'sle to see if Tennell had posted a notice there offering a reward for the knife on the night before the murder, and found that statement correct. Here is the notice. You will see the description fits perfectly the knife with which the murder was committed."

The Thinking Machine accepted a sheet of paper which Deihl offered, glanced at it, then handed it back.

"I don't know if Dr. Maher even knows just why I ordered Tennell under arrest," continued the Captain. "Miss Bellingdame's story decided me. She was going to the wireless office to send a message, when she saw a man— it was First Officer Tennell— thrust his head out the door and look around, as if he contemplated escape. She thought it rather curious that he should slam the door when he saw her; but it meant nothing particularly. Then, at a time when we now know Ingraham was dead, she carried on a conversation with some one in the wireless office, through the locked door. Tennell had not mentioned this to me, and coming as it did it seemed so conclusive that I ordered his arrest."

"It was conclusive from the first," remarked Dr. Maher.

"And then hearing the wireless that night after I had taken pains to assure myself that there was no operator aboard!" Captain Deihl resumed, and his face reflected his bewilderment. "I went straight from the bridge to the wireless office, to find it silent, dark, and the door locked. I called. There was no answer, and I smashed in the door. There was no sign of anyone having been in there—everything was precisely as we left it when the body was removed."

For a long time there was silence. Dr. Maher drummed

impatiently on the arm of his chair; The Thinking Machine sat motionless, his slender figure all but engulfed in the huge chair.

"As I understand it," remarked The Thinking Machine at last, "Tennell is now in the hands of the police, and the body is—"

"Ashore awaiting burial," the Captain supplied. "Miss Bellingdame has asked permission of the authorities to take charge of it."

Dr. Maher arose and went to the window, where he stood looking out. The Thinking Machine lowered his squint eyes and stared steadily at the ship's surgeon.

"The case against the first officer seems perfectly clear thus far," said the scientist after a pause. "Why do you come to me?"

Captain Deihl's bronzed face reddened as if he was embarrassed, and he cleared his throat. "Because I know Harry Tennell," he said bluntly. "Circumstances are compelling me to believe that he is a murderer, and my reason won't let me believe it. Why, man, I've known him for years, and I simply can't make myself believe what I have to believe! The police are deaf to the bare suggestion of his innocence, and I-I came here."

"All of which is rather to the credit of your heart than to your head," interposed Dr. Maher cynically.

"Have you any cause to suspect anyone but Tennell, Captain?" inquired The Thinking Machine. He was squinting at the back of Dr. Maher's head. "Can you imagine any other motive than the apparent one?"

"No," replied Captain Deihl. "I can imagine nothing; but I would gamble my right arm that Harry Tennell didn't kill him."

Again there was silence. The Captain was gazing vainly into the drawn, inscrutable face of the diminutive scientist, who lay back with finger tips pressed together and eyes turned steadily upward.

"Dr. Maher," inquired the scientist at last, "the wound was made by a knife. Was it clean cut?"

"Yes."

"Was the knife driven to the hilt?"

"Yes. It required considerable strength."

"And I believe Captain Deihl says there was a thin trickle of blood from the wound before you pulled the knife out?"

"That's correct," was the short answer.

"Therefore is a point for Tennell, as it shows the knife had been withdrawn and replaced. And so the real problem is to find what message Ingraham was sending when he was murdered," said the scientist quietly. "Neither of you happens to know?"

"The same thought came to me while Captain Deihl was talking to Tennell," said Dr. Maher quickly. "It was shortly after seven bells in the afternoon—that is, half-past three o'clock—when the crime was discovered. Now, the last message to be sent, according to the time check on it, was sent shortly after twelve. Yet, if we believe Tennell, the operator was sending a message just before he was struck down, or possibly at that moment. Well, there was nothing to show for that message—no scrap of paper—nothing."

The Thinking Machine glanced at Dr. Maher as if surprised. "Therefore the message Ingraham was sending," he put in, "was either stolen or was being composed as he sent it. Is that clear?"

There was a pause. Captain Deihl nodded, and Dr. Maher began drumming on the window sill.

"That being true," the scientist went on incisively, "the next step is to learn who aboard the *Uranus* could read the code—the Continental code too, mind you, not the Morse—as a message was being sent. Is that clear?"

"Yes; go on," said Captain Deihl.

"When we find the person who could read the Continental code, we also find the person who in all probability was operating the wireless at one o'clock the night of the murder. Is that clear?"

"Yes, yes."

"And when we find the person who operated the wireless logic shows us, incontrovertibly, that we have either the murderer of Ingraham, or some one who was in the plot.

Remember, the ship had been canvassed in a search for an operator. None came forward; therefore we know that the operator-an operator-was aboard, but for divers reasons preferred to remain unknown. We know that as certainly as that two and two make four, not sometimes but all the time."

Dr. Maher turned and dropped back into his chair, with a new interest evident in every line of his face.

"With these facts in hand it is a simple matter, albeit perhaps a tedious one, to find what message was sent from the ship both by the operator and by the unknown at night," The Thinking Machine resumed. He was silent for a moment, then arose and left the room. He was gone for perhaps ten minutes. "Now, Captain Deihl, and you, Dr. Maher, have you formed any opinion as to the exact method of the murder? Was the murderer inside the cabin with Ingraham, or was he killed by a knife thrust through an open window? You know the arrangement of the place better than I. What is your opinion?"

Captain Deihl considered the matter carefully as he sought to recall every minute detail of the cabin as he found it. "Since you have brought up the question," he said slowly at last, "it seems to me that he must have been stabbed by some one outside, through the window. His left side was toward the window, and the window was open, as it was warm, and he was in his shirt sleeves. Yes, it was within easy reach, and I'm inclined to believe-- What do you think, Maher?"

"I agree with you perfectly," was the prompt response. "The angle of the knife indicates that an arm had been dropped inside the state room, and there was an upward thrust, where if a person had been in the room the natural angle would have been downward, unless that person had been lying on the floor."

"All of which being true, is a point in favour of Tennell," said The Thinking Machine curtly. "You found him inside the cabin with the body, and we must suppose from your own statement, Dr. Maher, that he would have had to lie down to inflict the wound. I may say that the strongest point in his favour is the fact

that he did not throw away the knife. He knew it to be his; had opportunity to get rid of it, but didn't; therefore—" He shrugged his shoulders and was silent for a moment.

"All things depend upon the point of view, gentlemen," he continued after a time. "There are half a dozen casual facts, several of which I have specified, which incline me to a belief in Tennell's innocence; and only two against him, these being the motive and the knife. Strong, you say? Yes; but the knife is turned in his favour. Now let us assume Tennell's innocence for a moment, and build our hypothesis on facts that we know. It is always possible to reconstruct a happening by the logic of its units. Let us see this rule applied to this case.

"We are reasonably certain that whatever message Ingraham was sending just before, or at the moment of his death, was not a written message. I have your word, Dr. Maher, that there was not a trace of any message after the one about noon. Shall we suppose that there was a written message and it was stolen from his desk by the hand that slew? Hardly. Let us take the simple view first. He was sending a message somewhere as he composed it. Now, anyone aboard that ship who knew the Continental code could have read that message, because the wireless has that fault. That being true, we shall admit that somebody did read it, or was reading it as it went.

"Right here we come to what may prove to be the solution. It was necessary for the person who read the message to stop it, and perhaps to silence the man who sent it, even at the cost of a life. Therefore, the importance of the message to the person who read it was life and death. A blow was struck; the message was stopped. But the knife? Tennell says he lost it; anyone might have found it.

"The message is stopped; the man is dead. The next vital necessity which the murderer feels is self protection. How? Can a message be sent which will counteract the one which was stopped by the murder? If this can be done, it is vitally necessary. Some one then— the murderer— takes another

tremendous chance, enters the office, and is sending another message, possibly a continuation of the interrupted message, when Captain Deihl becomes aware of it. He goes to investigate, and the probabilities are that the unknown operator escapes by way of the window and regains a state room unobserved.

"That's clear, isn't it? Well, now, what possible motive might lie back of it all? Well, one for instance. Suppose the English police, after the *Uranus* sailed, had reason to suspect there was some person aboard who was wanted there; they could have reached the *Uranus* by wireless. But no such report reached the *Uranus*, you say, Captain? That is, no such report reached you, you mean. The operator might have received such a report; but for reasons of his own kept it to himself. Do you see?

"Let us conjecture a bit. What if a big reward was offered for some person aboard the *Uranus*, and a statement of the fact reached it by wireless? What if the operator was that peculiar type of man who would hold that information to himself on the chance of discovering and delivering over that person who was wanted to the police of this country, thus holding the reward all to himself? Do you see the possibilities? Now, what if that person who was wanted was an operator as well, and able to read the unwritten message the regular operator was sending, - a message, understand, which meant capture and punishment, - is that a motive for murder?

"This is all partly conjectures, partly fact - merely a discussion of the possibilities. Still, our murderer is unknown. As I have said, the capture of the guilty person may be simple; but it may be tedious. When I hear from—"

There was a sharp, ringing of the telephone bell in the next room. The scientist arose abruptly and went out. After a few minutes he returned.

"You allowed Miss Bellingdarne to leave the *Uranus* on a motor boat, I understand, before you docked?" he inquired placidly.

"Yes," replied Captain Deihl. "She requested it, and Dr.

Maher suggested that it would perhaps be best as she was very ill and weak from the shock following the tragedy."

"I shall be able to put my conjectures to a test at once then," said The Thinking Machine as he put on his hat. "First, I must ask some questions of Miss Bellingdame, however. Suppose you gentlemen wait for me at police headquarters? I shall be there in an hour or so."

The Thinking Machine and Hutchinson Hatch, reporter, were sitting together in a small reception room adjoining the telegraph office in the Hotel Teutonic. Opposite them was Miss Bellingdame, still pale and weary looking, with traces of grief on her face.

"Our close relationship with Mr. Igraham prompted us to call upon you and offer our condolences at this time," The Thinking Machine was saying glibly; "and at the same time to ask if we could be of any service to you?"

"I appreciate the feeling, but hardly think there is anything you can do," Miss Bellingdame responded, "unless, indeed, it is to relieve me of the painful task of taking charge of the body, and—"

"Just what I was going to suggest," interrupted the little scientist. "With your permission I shall send a telegram at once to friends at home and tell them to make preparations. If you will excuse me?" And he arose.

Miss Bellingdame nodded, and he went to the small window of the telegraph office, wrote a despatch, and handed it in. After a moment he resumed his seat.

"It is singular that Charlie should never have mentioned your name in his letters home," continued The Thinking Machine as he dropped back into his chair.

"Well, our acquaintance was rather brief," replied Miss Bellingdame. "I met him abroad, and at his suggestion came directly over with him. Now that everything has happened, I hardly know just what I shall do next."

The telegraph sounder clicked sharply, and distinctly.

"And when were you to have been married?" interrupted the scientist gently.

Miss Bellingdame was listening intently. "Married?" she repeated absently. "Oh, yes, we were to have been married, to be sure."

Hatch strove vainly to read the expression which was creeping into her face. She was leaning forward, gripping the arms of the chair in which she sat with wide, staring, frightened eyes, and every instant her face grew whiter. Suddenly she arose.

"Really you must pardon me," she gasped hurriedly. "I am ill!"

She turned quickly and almost ran out of the room. The Thinking Machine walked out and into the arms of Detective Mallory in the lobby.

"Are your men placed?" demanded the scientist abruptly.

"Yes," was the complacent answer. "Did it work?"

"It worked," replied The Thinking Machine enigmatically. "Come on. Let us go to headquarters."

THE THINKING MACHINE'S conjecture was faulty only in one point, and that was his surmise that the message which had been sent at night from the *Uranus* after the murder had been to counteract the message which Ingraham was sending when he was killed. Instead, Miss Bellingdame, herself an operator, had picked up the wireless station ashore and ordered a motor boat out to meet her and take her off. Every other statement was correct as he had stated it.

"And simple," he told Hatch and Captain Deihl. "Mr. Hatch, to whom I telephoned while you, Captain, were with me, was able to find the interrupted message at sea; in fact, it had been relayed in to the station here for information. It stated that Miss Florence Hogarth, wanted for poisoning in England, and for whom there was a reward of one thousand pounds, was aboard the *Uranus* as Miss Bellingdame, and that instead of having dark

hair her hair was straw blond, as the result of a little peroxide. You see, therefore, the logic of the units was correct. It is always so. She went to pieces when she read the sounder at the hotel, which was a prearranged affair in the hands of a Continental operator. The message I sent was a dummy."

Subsequent developments proved that instead of being engaged to the murdered operator, Miss Bellingdame, or Miss Hogarth, had never seen him until she came aboard the *Uranus*. It never appeared just how Ingraham had discovered her identity.

44: The Grinning God

THIS STORY is the result of an unusual method of collaboration between Mrs. Jacques Futrelle, and Jacques Futrelle, creator of The Thinking Machine, -unusual in that the first installment, "Wraiths of the Storm," which presents a remarkable, even an intangible, problem, is entirely the work of Mrs. Futrelle, and the second installment, "The House That Was," is a legitimate attempt by Mr. Futrelle to solve the problem on the stated facts with the aid of The Thinking Machine.

PART I: Wraiths of the Storm *Mrs. Jacques Futrelle*

PROFESSOR Augustus S. F. X. Van Dusen— The Thinking Machine—readjusted his thick spectacles, dropped back into the depths of the huge chair, manuscript in hand, and read:

"Something less than three months ago I had a photograph taken. As I look upon it now I see a man of about thirty years, clean shaven, full faced, and vigorous with health; eyes which are clear and calm and placid, almost phlegmatic; a brow upon which sits the serenity of perfect physical and mental poise; a pleasant mouth with quizzical lines about the corners; a chin

with determination and assurance in every line; hair brown and unmarked with age. I was red blooded then, lusty, buoyant with life and animalism, while now--

"Here is a hand mirror. It reflects back at me the gaunt, haggard face of a man who might be any age; furtive, shifting eyes in which lies perpetual, hideous fear; a brow ruffled over into spidery lines of suffering; a drooping, flabby mouth; a chin weak and utterly devoid of the assurances of manhood; hair dead white over the temples, with strange grey streaks through it. My blood is become water; youth is frozen into senility; all things worth while are gone.

"Fear, Webster says, is apprehension, dread, alarm-and it is more than that. It is a loss of the sense of proportion, an unseating of mental power, a phantasmagoria of perverted imagination; a vampire which saps hope and courage and common sense, and leaves a quivering shell of what was once a man. I know what fear is-no man better. I knew it that night in the forest, and I know it now, when I find myself sitting up in bed staring into nothingness with the echo of screams in my ears; I knew it when that grim, silent old man moved about me, and I know it now when without conscious effort my imagination conjures up those dead, glassy eyes; I knew it when vicious little tongues of flames lapped at me that night, and I know it now when at times I seem to feel their heat.

"I know what fear is! It is typified by a little ivory god which squats upon my mantel as I write, grinning hideously. Perhaps there is some explanation of the event of that night, some single hidden fact which, if revealed, would make it all clear; but seeking that explanation I have grown like this. When it will end, I don't know— I can only wait and listen, always, always!

"Impatient, half famished, and wholly disgusted at a sudden failure of my gasoline supply, I ran my automobile off the main roadway and brought it to a standstill in a small open space before a little country store. I had barely been able to make out the outlines of the building through the utter darkness of the

night,-a darkness which was momentarily growing more dense. Black, threatening clouds swooped across the face of the heavens, first obscuring, then obliterating, the brilliant star points.

"I knew where I was perfectly, although I had never been over the road before. Behind me lay Pelham, a quiet little village which had been sound asleep when I rushed through, and somewhere vaguely in front was Millen. I had been due there about seven o'clock; but, thanks to some trouble with a crank, it was now about ten. I was well nigh exhausted from hours at the steering wheel, and nothing to eat since luncheon. I would spend the night in Millen, store up a few hours' sleep, after the insistent demands of my appetite had been appeased, then on the morrow proceed comfortably on my way.

"This was what I had intended to do. The sudden shortage of motive power brought me to a stop in front of the forbidding little store, and a little maneuvering back and forth cleared the road's fairway of the bulk of my machine. No light showed in the house, but as I had not passed another building in two or three miles back, it seemed not improbable that the keeper of the store slept on the premises. I put this hypothesis to a test by a loud halloing, which in the course of time brought a nightcapped head to a window just above the door. I hailed the appearance of the head as a good omen.

" 'Got any gasolene?' I asked.

" 'I calculate as how I might have a little,' came the answer in a man's voice.

" 'Well, will you please let me have enough to get me to Millen?'

" 'It's ag'in' the law to draw gasolene at night,' said the man placidly. 'Cal'late as how you'll have to wait till mornin'.'

" 'Wait till morning?' I complained. 'Why man, there's a storm coming! I've got to get to Millen.'

" 'Can't help that,' was the reply. 'Law's law, you know. I'd be sorter skeered, anyway, to draw gasolene now.'

"Here was another dilemma, unexpected as it was annoying. The tone of the voice left no room for argument, and I knew the obstinacy of this man's type. I was prepared, therefore, to accept the inevitable.

" 'Well, if you can't draw any gasolene to-night, can you give me a bite to eat and put me up till morning?' I asked. 'I can't stay out in this storm.'

" 'Ain't got no room,' explained the man. 'Jus' enough space up here for me an' the dog, an' he kinder crowds.'

" 'Well, something must be done,' I insisted. 'What is the price of your gasolene?' I added by way of suggestion.

" 'Twenty-five cents a gallon in day time.'

" 'Well, how is fifty cents a gallon at night?' I went on.

"The whitecapped head was withdrawn, and the window banged down suddenly. For a moment I thought I had hopelessly offended some puritanical old man of the woods; but then a light glowed inside the store, and the front door opened. I stepped inside. The light came from a safety lantern in the hands of a shrunken shanked, little old man, who proceeded to draw the gasolene.

" 'How far is it to Millen?' I inquired casually.

" 'Calculate as how it's about five miles.'

" 'Straight roads?'

" 'Straight 'cept where it bends,' he replied. 'They ain't no turnout nor nothin'. You can't go wrong 'less you climb a fence.'

"The gasolene was drawn and paid for, after which the old man accompanied me to the automobile with his safety lantern. He stood looking on curiously as I filled the tank.

" ' 'Pears to be a right smart storm comin' up,' he remarked consolingly.

"I glanced upward. Every star point was lost now behind an impenetrable veil of black; there was a whispering, sighing sound of wind in the trees.

" 'I think I can beat it into Millen,' I replied hopefully.

" 'I cal'late as how you oughter,' responded the old man.

'Ain't no thunder an' lightnin' yet, an' I cal'late as how they'll be a pile of it before it rains.'

"I handed back the empty gasoline can, cranked up, then climbed aboard my car. There was a whirl as I touched the power lever, and the machine trembled beneath me.

" 'If I should get caught before I get to Millen, is there any place I might stop,' I inquired.

" 'I cal'late as how you might stop anywhere,' the old man chuckled; 'but they ain't no houses nor nothin'. They ain't even a dog kennel 'tween here an' Millen. But they ain't no turnouts, an' you can hit it up as fast as you want to. You'll be all right.'

"A sudden gust of wind brought a whirling cloud of dust upon us, and the thinly clad old man scampered off into the house.

" 'Good night,' I called.

" 'Good night,' he answered, and the door slammed.

"I backed my car, then straightened out into the road, a wide yellow stretch, as smooth as asphalt, where the swirling, eddying winds awoke little dust devils to play. Then I kicked loose the speed gear, pulled the lever far back, and went plunging off into the night.

"It might have been only my imagination, or it might have been that, as the car swept on, I heard some one calling me; I'll never know which. But the lowering clouds and a quickened rush of wind did not make a stop inviting; so the car sped on.

"I knew a capital little all night restaurant in Millen, and was speculating pleasantly as to whether it should be a chop and a mug of ale, or a more substantial steak and potatoes. I was aroused from this anticipatory mood by the fact that the glittering lamps of my car showed me straight ahead two roads instead of one. Two roads! Here was another unexpected annoyance. I brought the automobile to a stop, in doubt and perplexity.

"To the right the road ran off into the thickening forest, as far as the steady light gleams showed; to the left it seemed a

little more marked, as if more traveled, and where the light melted into the enveloping blackness it appeared to widen. I leaped out of the car and went forward, seeking a guide post or something to show my way. There was nothing.

"Then I remembered that I had a road map in my pocket. Of course that would tell me. A grumble of thunder came from far off as I drew near the car to examine the map in the light. Here was Pelham, and here was Millen; here even the little store where I stopped, marked with a star, which meant that gasoline was to be procured there. Now I was somewhere between that store and Millen. The map was a large one. It should show not only the main road, but every little bypath that cut athwart it. Yet from the little store to Millen the road was an unbroken line. There was no branch road on the map; and yet here was one.

"I was perplexed, impatient, and incidentally starving; so hastily made up my mind which road to take: the left and more beaten one. Heaping maledictions upon the head of the man who drew that particular map, I started to climb into the car again, when the veil of night was cleft by a vivid zigzag flash of lightning. It startled me, blinded me almost, and was followed instantly by the crash and roar of thunder.

"Then came another sound,-a curdling, nerve racking scream,-a scream of agony, of pain, of fear,-a hideous, awful thing which seemed to stop my heart for one fearful instant, then was lost in the thunder of the approaching storm. Suddenly all was silent again, save for the wind as it whipped its way through the forest.

"I was not a nervous man; so after the first shock the blood rushed back to my heart, my head cleared, and I was perfectly calm. But I stood waiting with my foot on the step-waiting and listening. I argued calmly. Some one was evidently in distress. But where? In what direction? The singing wind, the whirling dust, left me no guess. And then again came that scream, this time a series of quick, sharp shrieks ending in a wail which made me clench my hands until the nails bit into the flesh, and left me

weak and trembling absurdly.

"But now I had the direction. The cries had come apparently from the road, somewhere behind me. I walked to the rear of the car where the tail light shot out a feeble ray, and stood peering off into the blackness in the direction whence I had come. At first I could distinguish nothing, then a white, intangible something slowly grew out of the night,— something hazy, floating, indistinct, yet unmistakably something. Fascinated, I stood still and continued to stare. The floating white figure seemed to grow sensibly larger and clearer. It was coming toward me; it would cross the path of the light in another moment. I caught my breath and waited.

"Suddenly again came the reverberating crash of thunder, nearer and louder, but unaccompanied by lightning. Instantly, as if in echo, came that scream again. Obviously it was some one in distress,—a woman perhaps, lost in the woods and in terror of the approaching storm. If this was true then there was only one thing to do; go to her relief.

"I stopped and tugged at the tail lamp to release it from its fastenings. A ragged edge cut my hand cruelly; but I hardly felt the sting. At last the light was free in my hand, and I started with it back along the road to where I had seen the figure. With the lamp thrust straight out in front of me at arm's length I ran back ten yards, twenty, fifty, and saw-nothing. I screened the light with my hand, and peered about through the gloom, and saw-nothing.

"A panic was growing upon me. I flashed the light to the right, to the left, and it showed only the gaunt, silent trees, straight ahead of me along the yellow road, and behind me toward the panting automobile. There was nothing-absolutely nothing! I rushed back to the car; but no one was there. I called aloud; but the grim forest gave me back only the sound of my own voice, mingled with the swishing of the wind.

"Then I stopped still in silence and awe, and listened. For a long time I stood there, light in hand, until the silence grew more

terrifying than the screams had been. I wanted to hear that scream again now, to bring relief to my bursting heart and shaking nerves, to tell me that it was real and not some trick of overwrought fancy. But the silence was unbroken save for the freshening gusts of air which stirred the dry leaves and rained them down in a gentle patter.

“Finally I turned and walked back to where the car stood throbbing like a living, breathing thing. It gave me confidence. I struck the tonneau with my open palm, and laughed suddenly at my unreasoning terror. It was absurd, a school boy running from his shadow, and here I was a man—a sound, healthy, hungry man. I had heard the screams, I knew; I had seen the floating white figure. There was nothing very remarkable about it; it was a thing to be explained, of course.

“So now, deliberately I searched the road again, this time with the light turned toward the ground. I went along, stooping, seeking footprints. I found none; but I could explain even that; the wind gusts had covered them with dust, obliterated them.

“I straightened up suddenly. Something had sounded, something louder than the rustling of the leaves, something louder even than the creaking of the trees. It was a crackling sound—a sound that might have been a foot pressure upon dry twigs. It seemed to be to the left, and I turned the light in that direction. Grotesque shadows danced and swayed as the trees reeled about me. Then high up where the light straggled through the branches I saw something white— dead white!

“I cleared the road at a stride and plunged into the forest with the light turned upward. I stumbled over rocks half buried in the leaves; I slipped once into a ditch which I couldn’t see. Finally my foot struck a fallen tree, and I went forward sprawling on my hands and knees. The lamp rolled beyond my reach, and utter blackness swooped down as the light was smothered in the underbrush. As I groped for it I heard again that crackling sound as of breaking twigs. Perhaps it was coming toward me— and I couldn’t see!

“At last my frantic fingers closed on the lamp, and I shot the light high above my head, seeking that white something up among the trees. It was gone! I paused to wipe the perspiration from my brow, and tore my collar loose. A sudden shower of leaves came down upon my head; there was another zigzag flash of lightning, a nearby roll of thunder, and the sinister patter of raindrops falling about me like leaden bullets. The storm had burst.

“Heedless of all the intangible horrors of that lonely spot in the forest, maddened by terror at the inexplicable things which had befallen me, I stumbled back to the pulsating automobile, clambered in, and sent it forward headlong on the road to the left,— the well beaten road,— the road which bore evidence of constant travel. The pace was furious; for somewhere behind me I felt was a misty, floating figure of white, and somewhere a woman screaming. The rain beat me in the face steadily; the lightning burst forth in livid, flaming tongues; the thunder crashed about me,— and my only haven was Millen.

“Suddenly the road widened where a path cut through the dense wood, and was lost in a perspective of gloom. A single sidelong glance at it as I rushed past told me it was wider than would be naturally worn by persons passing, and yet not wide enough for my car, nor even for a narrow wagon. Here that road map was at fault again. I remembered that grimly, even as the automobile went splashing along through growing pools of water and invisible ruts in the wagonway. I clung grimly to the steering wheel with only one idea in mind: to get to Millen. Already I was wet through from the terrific downpour, and a chilling numbness was seizing upon my limbs.

“Gradually the road turned toward the left, or so it seemed to me. But that too might have been the effect of an overwrought brain. The road did not look so much traveled now, despite the deceptive ruts into which my wheels sank with maddening frequency. Yet beneath its sheet of water the steadily gleaming lights showed that there was a road, plainly

marked. For a minute or more, I suppose, I went straight on, desperately, recklessly; then an illuminating flash across the sky showed me that I was plunging into open country, and that the forest was gradually receding.

“Finally, through the swirling, drenching rain, I saw a faint rosy point in the distance. Whatever it was, a lantern I supposed, it at least indicated the presence of some fellow human being. I drove straight toward it. The gleam did not falter or fade. Another dazzling burst of lightning answered my question as to the nature of the light. It was in a farm house,-a farm house out here where there weren’t any farm houses, squatting in an open field, a ramshackle, two-storied affair. But at least it would serve to shelter me from the fury of the storm. I took in all of it at one glance, even to a small shed in the rear where I might store my machine.

“I didn’t pause to call as I drew near, but drove to the shed and ran my car in. Then, guided by the constant lightning flashes, I walked round to the front of the farm house, passing through the stream of light from the window as I went. It cheered me, that light. It offered an unexpected haven, that physical refreshment of which I was so much in need, possible companionship, and above all a refuge.

“I knocked on the front door loudly, the thunder was rolling incessantly now, then shook the water from my dripping garments. I waited-waited patiently enough for half a minute, I suppose. There was no answering sound of any sort, and again I knocked, this time insistently, even clamorously. Still no answer. It was not difficult to imagine that the continuous roar of the elements had drowned the feeble knock, and I repeated the performance with several thumping, banging variations. Still no answer.

“Even in this desperate strait I did not care to enter the house as a thief might, by forcing my way, and run the risk too of being received as a thief, possibly with a bullet. So I stepped down from the veranda, and went to the lighted window,

intending to attract attention by rapping on the glass. My first glimpse told me no one was there; but the room gave every evidence of occupancy. A big cheerful log fire was burning, and its flickering light showed books strewn about here and there, inviting chairs, a table, and all the little knickknacks that make a comfortable sitting room. There beside that brightly blazing fire was comfort, and here the penetrating chill of the storm.

"I had no further scruples about it. I was going into that room! I ran up the steps, and was just reaching out my hand to try the knob, when the latch clicked, and slowly, silently, the door swung open. Naturally I expected to meet some one,-some one who had anticipated me in lifting the latch,-but I saw no one. The door had merely opened, revealing a rather long, broad hallway, with a stair in the distance, and unlighted save for the reflection from the sitting room. I took just two steps across the threshold, enough to get out of the swirling rain, then stopped and called. No one answered. I called a second time. For a wonder the thunders were silent just then, and there was no sound save that of my own voice. I ventured along the hall to the sitting room door and looked in. It was cozy, warm, comfortable, more so even than I had imagined when I looked in through the window.

"All at once I was overcome by a guilty sense of intrusion. What right had I to enter a strange house at this time of night in this manner, even to get out of a storm? My personal safety seemed at stake, somehow. I turned and started back for the door by which I had entered, with the intention of remaining there till in some way I could attract the attention of the occupants of the house.

"But I didn't reach the door; for directly in front of me stood a man. He was tall, angular, aged, and a little bent. A straggling gray beard almost covered his face, and thick gray hair hung down limply from beneath the brim of an old slouch hat. He was beside me, almost within reach of my hand, almost treading upon my toes with his great boots, and yet I had not heard one

sound, except when the door clicked as I entered. It all came to me at once, and I shivered involuntarily.

“ ‘I must apologize—’ I began; but I got no further. He had not heard me, had not even seen me, if I might judge by the manner in which he walked slowly past me with his chin upon his breast, and his hands clasped behind his back. I stepped back to avoid a collision.

“ ‘I beg your pardon—’ I began again; but he had disappeared into the sitting room, stalked away noiselessly without even a glance in my direction, leaving me dripping, chilly, and overcome by the indefinable sense of impending danger.

“I paused there in the hall and pondered the situation. Surely the old man had seen me. But I had spoken! Of course, it was possible that he had neither seen nor heard me; yet— yet—

“ ‘I’m going in there, and I am going to stay until the storm moderates!’ I told myself. ‘Perhaps it is just a peculiar old man’s way.’

“I removed my automobile coat, hung it upon a peg, walked along the hallway with a firm tread, and stepped into the sitting room. It was deserted!

“There are moments in every man’s life when the weight of a revolver in his hand is tremendously reassuring. This was mine. I drew the weapon from my hip pocket, examined it, and thrust it into my coat within easy reach of my right hand. Then I stood by the table, drumming my fingers upon it idly, and debating with myself as to what I should do. I was looking toward the door by which I had entered. No one came in, and yet— Suddenly the gray bearded old man was throwing a log on the fire. The flames shot up and the sparks flew; but there was not the crackle of fresh burning wood as there should have been— just this silent old man. My heart was in my throat, and I laughed sheepishly.

“ ‘You startled me,’ I explained foolishly in apology.

“He did not look at me; but busied himself about the room for a moment, and laid his hat upon a couch. Then he went out

by the door into the hallway.

“ ‘Well, upon my soul!’ I ejaculated.

“I sat down and deliberately waited for the old man to return. The uncanniness of it all was growing upon me, the silence of his great boots as he walked, the fire which didn’t crackle as it burned, the lack of any sign or movement to indicate that he had recognized my presence. Was the old man real? I came to my feet with an exclamation. Or was it—was it some weird continuation of that horrible thing in the forest?

“I put out a cold, clammy hand to the fire. That seemed real—at least a warmth came to me, and gradually my fingers lost their numbness, and looking upon my own hand I fell to remembering the hands of my strange host. They were knotted, toil worn, and the left forefinger was missing. That fact struck sharply upon my memory, and I remembered too a scar over one eye when he removed his hat. That all seemed real too, as did these things upon the mantel here in front of me: an empty spool, an alabaster cat, glaring red and white, a piece of crystal of peculiar shape upon the farthest corner. And near it, so close that at first it seemed a part of it, was a queer little ivory god sitting upon his haunches, grinning hideously.

“I lifted the ivory image and examined it curiously. It was real enough. I had stepped back from the mantel a pace to let the firelight fall upon it, when suddenly I knew that the old man had returned. I didn’t hear him, I hadn’t seen him,—I merely knew he was there. I felt it. I slipped the little image into my pocket involuntarily as I turned; for all my interest was instantly transferred to a tray of food which the old man carried. I remembered I was hungry.

“He placed the things upon the table in the same ghostly silence. There was a jug of milk, some jelly, a little pat of butter, and several biscuits. I went forward and thanked him. He was absolutely impassive, seeing nothing, hearing nothing, and seeming to have no connection with the things around him. He didn’t invite me to eat,— I assumed that privilege and gingerly

poked a finger into a biscuit. It felt like a biscuit. I bit it; it tasted like a biscuit. In fact, I am convinced to this day that it was a biscuit. And against the reality of that biscuit was the silent old man and his ghostly tread.

“Real, or unreal, the food was refreshing and good, and I fell to with a will. The old man sat down in a rocker by the fire and folded his hands in his lap. I ventured a remark about the storm. He didn’t answer. I really had not expected that he would. The modest supper brought a tingle to my blood again. My rioting nerves were calmed, the room cozy, the fire comfortable. I was beginning to enjoy this singular experience; but an occasional glance at the swaying rocker where the old man sat by the fire kept expectation on the qui vive. The rocker swayed dismally, but without the slightest sound.

“The warmth, the food, and my utter exhaustion conspired to make me a little drowsy, and I think once I must have closed my eyes. I opened them with a start. From somewhere above me, below me, or outside where the storm still growled, came that awful, heart tearing scream again, ending in a wail that brought me to my feet. The old man did not heed the quick movement by the slightest sign,-he was still comfortably rocking.

“ ‘What is it?’ I demanded. ‘What is it?’

“Revolver in hand, I rushed toward the door leading into the hallway. The old man was there ahead of me. He didn’t touch me, and yet imperceptibly I was forced aside. He crossed the hall and went up the stairs. After a moment I heard a door open and shut.

“Except for the noise of the storm, the scream, and my own voice, it was the only sound I had heard since I entered the house.

“I went up those stairs; why I cannot say, except that something, a vague, undefined curiosity, seemed to impel me. And with this impulse came again, stronger than ever, that sense of personal danger to myself-the feeling that had possessed me ever since I entered the house.

"I groped my way through the darkness to the top of the stairs; then my hand ran along a wall till I came to an open door. I stood there a moment undecided whether to investigate further or to retrace my steps. I was on the point of going back down the stairs; but the flare of a candle almost in my face stopped me. The old man held the candle, shading it with his left hand, from which the forefinger was missing. The wavering light gave the withered old face a strangely drawn expression.

"He was within three feet of me, gazing straight into my face, and yet I felt, I knew, he didn't see me. It occurred to me even then that it was the first time I had seen his eyes. They were white and glassy. Blind? I do not know. For one moment he stood there staring, then passing me entered the room beyond, where he put down the candle. I followed him into the room as a moth follows a flame. It was the light, I think, that lured me in. Here once for all I would make an end of the thing. The old man, still noiselessly, went out the door by which he had entered, off through the darkness-somewhere. The door swung to. Like a madman I sprang forward and shot the bolt. I don't know why.

"I felt caged. Whatever was to come, was to come here! It was an intuition more strongly upon me than the sense of danger. I sat down on a clean little bed and stared thoughtfully at the single door,-that only way out save one of two small windows which I imagined overlooked the yard. I examined my revolver carefully. Every chamber was loaded, and the cylinder whirled easily. Well and good. I waited. What for? I don't know.

"The candle burned with a straight, unwavering flame, while I crouched there on the bed for a long time. The grumble of thunder was growing faint and far away; but the rain swished against the windows in sheets. Here was a vigil, it seemed, and a long one; for sleep seemed hopelessly out of the question despite the insistent drowsiness of exhaustion. I wondered if the candle would last throughout the night. It was not yet half burned. I gazed at it with a certain returning sense of assurance; and as I gazed it flickered, flared up suddenly, and went out.

"I don't know what happened then. It might have been ten minutes later, or it might have been half a dozen hours, when strangling, choking fumes of smoke aroused me. My lungs were bursting for air. I struggled up on the bed, and was instantly conscious of the crackling sound of burning wood-of fire. The house was on fire! I rushed toward the bolted door, to find the flames already eating through the thin panels, and little red tongues shot out at me. I was cut off from the stairs.

"From there to one of the little windows! The glow far out through the rain told me instantly that the structure was aflame. I glanced downward. Sinuous forks were below me, on each side of me, above me. There was nothing to do but jump. I had only a moment to decide. I drew in my breath and pulled myself upon the ledge.

"And then again I heard that scream. Far across the open field where the glow from the blaze dimmed off into the shadows, I saw faintly a misty white figure with outstretched arms fleeing toward the forest. A little behind the floating white figure, and nearer to me, well within the range of the firelight, the old man was following. Even at the distance I could see that his chin drooped upon his chest and his hands clasped behind his back. That was all I saw.

"The next instant I had jumped.

"I found myself in my automobile skimming along a smooth, hard road that led through a forest. It was not familiar, and I don't know in what direction I was headed, nor did it matter then so long as I got away from those things behind. My ankle was broken, my clothing torn and burned in spots, and my head was throbbing with pain.

"Then I found myself in what seemed to be a street in a small city. A faint, rosy line was just tinging the eastern sky. Houses to right and left of me were closed forbiddingly; but just ahead was the solitary figure of a man, walking slowly along, swinging a stick. I ran the automobile alongside him, shouting some senseless question, then fell forward fainting. My last

recollection was of shutting off power.

"When I recovered consciousness it was to find myself upon a cot in a strange room, perhaps a hospital. A physician was bandaging my ankle. A thousand questions leaped to my lips; and some of them burst forth in a torrent.

" 'Don't talk!' commanded the physician brusquely.

" 'But where am I?' I insisted.

" 'Millen,' he responded tersely. 'Don't talk!'

"It struck me curiously that I should be here,—that I should have reached the point for which I was bound even after all that had happened to me. It seemed centuries since I had left Pelham somewhere behind. Perhaps it was all a dream. But those screams! That silent old man! This broken ankle! I dropped into agonizing slumber after awhile,— the sleep of sheer exhaustion,— but asleep I lived again those awful moments which had almost driven me mad.

"On the following day I was calmer. The physician asked me some questions, and I answered them to the best of my ability. He did not smile at my fright; only shook his head and gave me something which made me sleep again. And so for a week I lay there, helpless, half asleep, and half awake. But one day I awoke to clear consciousness, comparatively free of the torture of the broken ankle, and myself again. Then the physician and I discussed the matter at length.

"He listened respectfully as I repeated it all, and at the end shook his head.

" 'There is no intersecting road between the small store of which you speak and the outskirts of Millen,' he said positively.

" 'But, man, I was there!' I protested. 'I turned into the other road, and ran along till I saw the house in the open field. I tell you—'

"But he let me go no further. I knew why. He thought it was some mental vagary; for after awhile he gave me a pill and went away. So I resolved to solve the matter for myself. I would go back along that road by day, and find that silent old man, and, if

not the house itself, the charred spot where it had stood. I would know that intersection; I would know even the path which led from the mysterious road off into the wood. When I found these I knew the maze would fade into some simple, plain explanation—perhaps even an absurd one.

“So I bided my time. In the course of another week I was able to leave my cot and hobble about with the aid of crutches. It was then that I took the physician in my car, and we went back along the highway toward Pelham. It was all unfamiliar ground to me; there was no road, and suddenly there ahead of me was the little store where I had bought the gasoline that night. I would question the old man I had seen there; but there was no old man. The little store was unoccupied; it seemed to have been unoccupied for weeks.

“I turned back and traversed the road toward Millen again. I recognized nothing; I couldn’t find a trace of a bypath from the highway in any direction. And once more I went over the ground at night. Nothing! After that the physician, a singularly patient man, accompanied me as I hobbled through the forest on each side of the road seeking that house, or its ashes. I never saw anything to lead me, to even suggest, a single incident of that awful night.

“‘I know the country, every inch of it,’ the physician told me. ‘There isn’t any such place as you mention.’

“And— well, that’s all. I know his opinion was that my story was some sort of delusion— a dream. But how he accounts for the broken ankle I don’t know. Then the condition of my clothing! I had been compelled to discard everything I wore for garments sent down from the city. And so in time I came to believe the experience a dream. I was growing content with this story, even knowing it to be wrong, because it brought mental rest, and was beginning to be myself again.

“Then one day I had occasion to search the coat I had worn that night for some papers which had been misplaced. In the course of the search I thrust my hand into an outside pocket,

and drew out— a little ivory god, sitting on his haunches, grinning hideously!

“Now I am like this-and the little god sits up laughing at me. He knows!”

WHEN he had finished reading, The Thinking Machine dropped back into the chair, with squint eyes turned steadily upward, and long slender fingers pressed tip to tip. Hutchinson Hatch, reporter, sat staring in silence at the drawn, inscrutable face of the scientist.

“And the writer of this?” demanded The Thinking Machine at last.

“His name is Harold Fairbanks,” the reporter explained. “He was removed to an asylum yesterday, hopelessly insane.”

*PART 2: The House That Was
by Jacques Futrelle*

THE THINKING MACHINE lowered his squint eyes and favored Hutchinson Hatch with a long, steady stare which for the moment seemed totally to obliterate him as a personality. Gradually, under the continued unseeing but tense gaze, there grew upon the newspaper man a singular sense of utter transparency, a complete invisibility, an uncomfortable feeling of not being present. He laughed a little finally, and lighted a cigarette.

“As I was saying,” Hatch began, “this Harold Fairbanks is hopelessly insane, and--”

“I imagine,” interrupted the eminent man of science, “I imagine that this insanity of Fairbanks’s is rather a maniacal condition?”

“Yes,” Hatch told him. “I was going to say—”

“And that possibly it took a homicidal turn?” The Thinking Machine continued.

“Yes,” the reporter assented. “He tried to—”

"Against a woman, perhaps?"

"Precisely. The direct cause of his—"

"Please don't interrupt, Mr. Hatch!" snapped The Thinking Machine. He was silent for a time; Hatch smiled whimsically.

"The object of his homicidal mania," the scientist continued slowly, as if feeling his way, "was—was his mother?"

"Yes."

Hatch dropped back into his chair and met the squint blue eyes fairly. He was not surprised at this statement of the case, thus far correct, because he was accustomed to the unerring accuracy of the master mind behind those eyes; but he was curious to know just how far that logical brain would follow a circumstantial thread which it had developed of itself out of an apparent nothingness. Nothing in the manuscript, nothing he had said, had even indicated, to his mind, the more recent developments.

The leaves of the manuscript fluttered through the slender white fingers of The Thinking Machine, and the straight line of the thin lips was drawn down a little as he glanced over a page or so.

"He shot at her?" he queried at last.

"Three times," the reporter informed him. The Thinking Machine raised his eyes quickly, inquiringly, to those of the newspaper man. "She was not wounded," the reporter hastened to say. "The shots went wild."

"That happened in Fairbanks's own room?"

"Yes."

"At night?"

"Yes; about one o'clock."

"Of course!" exclaimed the little scientist crabbedly. "I know that." Again there was a pause. "Mrs. Fairbanks has a room near that of her son—perhaps on the same floor?"

"Just across the hall."

"And she was awakened by some unusual noise in his room?"

"She hadn't been to sleep." The reporter smiled.

"Oh!" and again The Thinking Machine's squint eyes were turned toward the ceiling. "Some unusual noise attracted her attention, then?"

"Yes," the reporter agreed.

"Screams?"

"Yes."

The Thinking Machine nodded. "So she ran to her son's room just as she was in a white night robe, I imagine?"

"Precisely."

The reporter was leaning forward in his chair now, staring into the impassive face before him. Still he wasn't surprised— he was merely curious and interested in the workings of that mind which laid before him in order these incidents which were not known to it by any tangible method.

"And as she entered her son's room," the scientist resumed, "he shot at her?"

"Three times-yes."

The Thinking Machine was silent for a long time. "That's all?" he remarked inquiringly at last.

"Well, Fairbanks was raving, of course," and Hatch dropped back in his chair. "He was over-powered by two servants, and—"

"Yes, I know," broke in The Thinking Machine. "He is now in a padded cell in a private asylum somewhere." This was not a question; it was a statement. "And this manuscript was found in his room after he had gone?"

"It lay open on his table. That is his handwriting," explained the newspaper reporter.

The Thinking Machine arose and walked the length of the room three times. Finally he stopped before the newspaper man. "And is there really such a thing as this grinning god that he describes?" he demanded.

"Certainly," Hatch responded, and his tone indicated surprise.

"Not necessarily certain," said the scientist sharply. "Do you

know there is a grinning god?"

"Yes," replied the newspaper man emphatically. "It was taken away from Fairbanks when he was locked up. He fought like a fiend for it."

"Naturally," was the terse comment. "You have seen it, have you?"

"Yes, I saw it. It's about six inches tall, seems to be cut from a solid piece of ivory, and—"

"And has shiny eyes?" interrupted the other.

"Yes. The eyes seem to be of amethyst, highly polished."

Again The Thinking Machine walked the length of the room three times. "Do you know anything about self hypnotism, Mr. Hatch?" he inquired at last.

"Only that there is such a thing," replied the reporter, wondering at the abrupt change in the trend of the conversation. "Why?"

The Thinking Machine didn't say why. "You came to me, of course, to see if it was possible, by throwing light on this affair, to restore Fairbanks's mind?" he inquired instead.

"Well, that was the idea," Hatch agreed. "Fairbanks was evidently driven to his present condition by the haunting mystery of this thing, by brooding over it, and by the tangible existence in his hands of that ivory god which established a definite connection with an experience which might otherwise have been only a nightmare, and it occurred to me that if he could be made to see just what had happened and the underlying causes for its happening, he might be brought back to a normal condition." The reporter was silent for a moment, with eyes set on the drawn, inscrutable face of The Thinking Machine. "Of course," he added, "I am presuming that if it was not a diseased mental condition the things as he set them down did happen, and if they did happen I know you won't believe that they were due to other than natural causes."

"I don't disbelieve in anything, Mr. Hatch," and The Thinking Machine regarded the newspaper man quietly. "I don't even

disbelieve in what is broadly termed the supernatural— I merely don't know. It is necessary, in the solution of material problems, to work from a material basis, and then the things which are conjured up by fear and-and failure to understand may be dissipated. That is done by logic, Mr. Hatch. Disregard the supernatural, so called, in our material problems, and logic is as inevitable as that two and two make four, not sometimes, but all the time."

"You don't deny the possibility of the so called supernatural, then?" Hatch asked, and again there was a note of surprise in his voice.

"I don't deny anything until I know," was the response. "I don't know that there is a supernatural force; therefore," and he shrugged his slender, stooping shoulders, "I work only from a material basis. If this manuscript states facts, then Fairbanks saw an old man, not a spook; he saw a woman, not a wraith; he jumped to escape a real fire, not a ghost fire. When we disregard the supernatural, we must admit that everything was real, unless it was pure invention, and the broken ankle and burned clothing are against that. If these were real people, we can find them— that's all there is to that. Yet there is a chance that the whole tale is a fiction, or the product of a disordered brain. But even that being true, it interferes in no way with the inevitable logic of the affair. When we know that this manuscript is in existence, and when we know that the man who produced it has since become a raving maniac, the sheer logic of the thing reveals clearly the intermediate steps."

"How, for instance?" Hatch inquired curiously.

"Well, we have this," and The Thinking Machine rattled the sheets of the manuscript impatiently; "and while we'll admit it was written by a sane man, we know that that man has since become a maniac. I stated the incidents which led to his incarceration as logic unfolded them to me. First I knew that insanity from fear and failure to understand nearly always takes the maniacal turn; therefore I saw that instead of being insane,

as you stated first, Fairbanks was probably a maniac. There is a difference."

The reporter nodded.

"Next, one of the first manifestations of a maniacal condition is a homicidal tendency. Did Fairbanks attempt homicide? Yes.

"Now the problem grew a little more complex, rather intricately psychological, if I may say it that way," The Thinking Machine explained precisely. "However, it goes back generally to the broad grounds that a woman in a flowing white night robe typifies the popular conception of the ghostly, and when we know that this supposed wraith, or one of them, was a woman in white, we see that in Fairbanks's condition at the moment the appearance of such a figure would have instantly aroused him to the frenzy which led to the subsequent events."

"I understand, so far," Hatch remarked.

"Now the only woman-the most likely woman, I should say-to go to his room in a white night robe was his mother." He paused for a moment. "Therefore, his mother was in all probability the object of his attack. Remember, he was mad with fear, and, appearing suddenly as she did, perhaps in a dim light, she was to his disordered brain the incarnation of that thing he most feared."

Hatch seemed to be perfectly fascinated. His cigarette burned up until the fire touched his fingers; and he barely noticed it.

"In this manuscript," The Thinking Machine resumed after a moment, "Fairbanks tells me that he had a revolver, and shows a distinct weakness for the weapon. Therefore, wouldn't he shoot at this incarnation of the thing which was responsible for his condition. He did shoot. The fact that the incidents happened in Fairbanks's own room at night was an assumption based upon the fact that his mother figured in it, and the further fact that she was dressed for bed when she appeared in his room. Of course, if her room was near, her attention would be attracted by some unusual noise. If these noises were due to a maniac,

they were in all probability screams.”

“Well, by George!” Hatch remarked fervently. “It’s—”

“Now the first thing to do is to see Fairbanks in person,” interrupted The Thinking Machine, with a sudden change to a most business like tone. “I think, if he can comprehend at all, that I may be able to do something for him.”

The Thinking Machine— Professor Augustus S. F. X. Van Dusen, scientist— was cordially, even deferentially, received by Dr. Pollock, physician in charge of the Westbrook Sanatorium.

“I should like to spend ten minutes in the padded cell with Fairbanks,” he announced tersely.

Dr. Pollock regarded him curiously, but without surprise. “It’s dangerous,” he remarked doubtfully. “I have no objection, of course; but I should advise that a couple of keepers go in with you.”

“I’ll go alone,” announced the diminutive man of science. “It may be that I can quiet him.” Dr. Pollock merely stared. “By the way,” The Thinking Machine added, “you have that little ivory god here, haven’t you? Well, let me see it, please.”

It was produced and subjected to a searching scrutiny, after which the scientist set it up on a table, dropped into a seat facing it, leaned forward on his elbows, and sat staring straight into the amethyst eyes for a long time. A curious silence fell upon the watchers as he sat there immovable, minute after minute, staring, staring. Hatch absently glanced at his watch and went over and looked out the window. The thing was getting on his nerves.

At last the scientist arose and thrust the grinning god into his pocket. “Now, please,” he directed curtly, “I shall go into the cell with Fairbanks alone. I want the door closed behind me, and I want that door to remain closed for ten minutes. Under no circumstances must there be any interruption.” He turned upon Dr. Pollock. “Don’t have any fears for me. I’m not a fool.”

Dr. Pollock led the way along the corridor, down some stairs, and paused before a door.

“Just ten minutes— no more, no less,” directed the scientist.

The key was inserted in the lock, and the door swung on its hinges. Instantly the ears of the three men outside were assailed by a torrent of screams, of blasphemy, hideous imprecations. The maniac rushed for the door, and Hatch for an instant gazed straight into a distorted, pallid face in which there was no trace of intelligence, or even of humanity. He turned away with a shudder. Dr. Pollock thrust his arm forward to stay the swaying figure, and glanced round at The Thinking Machine doubtfully.

“Look at me! Look at me!” commanded the scientist sharply, and the squint blue eyes fearlessly met the glitter of madness in the eyes of Fairbanks. He raised his right hand suddenly in front of his face, and instantly the incoherent ravings stopped, while some strange, sudden change came over the maniacal face. In the scientist’s right hand was the grinning god. That was the magic which had stilled the ravings. Slowly, slowly, with his eyes fixed upon those of the maniac, the scientist edged his way into the cell, Fairbanks retreating almost imperceptibly. Never for an instant did the maniacal eyes leave the ivory image; yet he made no attempt to seize it, he seemed merely fascinated.

“Close the door,” directed The Thinking Machine quietly, without so much as a glance back. “Ten minutes!”

Dr. Pollock closed the door and turned the key in the lock, after which he looked at the newspaper man with an expression of frank bewilderment on his face. Hatch said nothing, only glanced at his watch and went over to the window, where he stood staring out moodily, with every nerve strained to catch any sound which might by chance penetrate the heavy, padded walls.

One minute, two minutes, three minutes! The second hand of Hatch’s watch moved at a snail’s pace! Four minutes, five minutes, six minutes! Then through the well nigh impenetrable wall came faintly the sound of hoarse cries, of screams, and finally the crash of something falling. Dr. Pollock’s face paled a little and he turned the key in the lock.

“No!” and Hatch sprang forward to seize the physician’s hand.

“But he’s in danger,” declared the doctor emphatically; “maybe even killed!” Again he tugged at the door.

“No!” said Hatch again, and he shoved the physician aside. “He said ten minutes, and— and I know the man!”

Eight minutes! Listening tensely, they knew that the screaming had stopped; there was dead silence. Nine minutes! Still they stood there, Hatch guarding the door, and his eyes unflinchingly fixed on the physician’s face. Ten minutes! And Hatch opened the door.

Professor Augustus S. F. X. Van Dusen— The Thinking Machine— was sitting calmly on a padded seat beside Harold Fairbanks, with one slender hand resting on his pulse. Fairbanks himself sat with his ivory image held close up to his eyes, babbling and mumbling at it incoherently. An over-turned table lay in the middle of the cell. So great had been the power used to upset it that an iron bolt which held it fast to the floor had been broken short off. The scientist arose and came toward them; and Hatch drew a deep breath of relief.

“I would advise that this man be placed in another cell,” said the little scientist quietly. “There is no further need to keep him in a padded cell. Put him somewhere where he can see out and find something to attract his attention. Meanwhile let him keep that ivory image, and there’ll be no more raving.”

“What— what did you do to him?” demanded the physician in deep perplexity.

“Nothing— yet,” was the enigmatic response. “I’d like for him to stay here a couple of days longer, under constant watch as to his physical condition,—never mind his mental condition now,—and then with your permission I’ll make a little experiment which I believe will restore him to a normal condition. Meanwhile he needs the best of physical care. Let him babble,—he will, anyway,—that doesn’t matter just now.”

Harold Fairbanks sat beside The Thinking Machine in the

second seat of a huge touring car, with the slender hand of the scientist resting lightly on his wrist. In front of them the chauffeur was busy with the multiple levers of the great machine; and behind them sat Hutchinson Hatch and Dr. Pollock. They were scudding along a smooth road, with the wind beating in their faces, guided by the ribbons of light which shot out ahead from their forward lamps. The night was perfectly black, with not a light point visible save those carried by their own car.

Behind them lay the quiet little village of Pelham, and miles away in front was the town of Millen. From time to time as the car rushed on The Thinking Machine peered inquisitively through the darkness into the face of the man beside him; but he could barely make out its general shape,—a pallid splotch in the darkness. The hand lay quietly beside his own, and a senile voice mumbled and babbled— that was all. The newspaper man and the physician in the rear seat had nothing to say; they too were peering vainly at Fairbanks.

At last through the gloom the outlines of a small building loomed dimly in front of them, just off the road to the left. The Thinking Machine leaned forward and touched the chauffeur on the arm.

“We’ll stop here for gasolene,” he said distinctly.

“Gasolene— stop here for gasolene!” babbled a senseless voice beside him.

The Thinking Machine felt the hand he held move spasmodically as the huge car ran off the main roadway and maneuvered back and forth to clear the fairway of its bulk. Finally it stopped, with its tonneau, end on, within a few feet of the door of the building. The scientist’s fingers closed more tightly on the wrist; and after a moment the incoherent mumbling began again.

Hutchinson Hatch and Dr. Pollock arose and got out. Hatch went straight to the little building and rapped sharply. The sound caused Fairbanks to turn vacant, wavering eyes in that

direction. After a moment a nightcapped head appeared at the window above. The Thinking Machine shot an electric flashlight into Fairbanks's face. The eyes, now fixed on the nightcapped head, were wide open, and a glint of childish curiosity lay in them. The babblings were silent for a moment, -somewhere in a recess of the maddened brain a germ of intelligence was struggling. Then, as the scientist regarded him steadily, the expression of the face changed again, the eyes grew vacant, the mouth flabby, the senile mumblings began again.

Hatch began and concluded negotiations for five gallons of gasoline. A shrunken shanked old man brought it out in a can, delivered it, and scuttled back into the house with his safety lantern. Dr. Pollock and Hatch took their seats again, while The Thinking Machine clambered out and went round to the back, where he spoke to the chauffeur, who was busy at the tank. The chauffeur nodded as if he understood, and followed the scientist to his seat.

"Now for Millen," directed the scientist quietly.

"Millen!" Fairbanks repeated meaninglessly.

The chauffeur twisted his wheel, backed a little, caught the forward clutch, whirled his car straight to the road again, and shot out through the darkness. For two or three minutes there was utter silence, save for the chug and whirl of the engine and the clanking rattle of the car; then The Thinking Machine spoke over his shoulder to Hatch and Dr. Pollock.

"Did either of you notice anything peculiar?" he inquired.

"No," was the simultaneous response. "Why?"

"Mr. Hatch, you have that automobile map," the scientist continued without heeding the question. "Take this electric light and examine it once more, to satisfy us that there is no road between the little store and Millen."

"I know there isn't," Hatch told him.

"Do as I say!" directed the other crabbedly. "We can't afford to make mistakes."

Obediently enough Hatch and Dr. Pollock studied the map.

There was the road, straight away from the star, to Millen. There was not a bypath or deviation of any kind marked on it.

"Straight as a string," Hatch announced.

"Now look!" directed The Thinking Machine.

The huge car slowed up and came to a standstill. The glittering lamps of the car showed two roads instead of one—two roads, here where there were not two roads! Hatch glared at them for a moment, then fumbled with the automobile map.

"Why, hang it! there can't be two roads!" he declared.

"But there they are," replied The Thinking Machine.

He felt Fairbanks's hand flutter, and then it was raised suddenly. Again he threw the light on the pallid face. A strange expression was there; a set, incredible, vague expression which might have meant anything. The eyes were turned ahead to where the road was split by a small clump of trees.

"Keep on to your left," The Thinking Machine directed the chauffeur, without, however, removing his eyes from the face of the man beside him. "A little more slowly."

The car started up again and swung off to the left, sharply. Every eye, save the squint, blue ones of the scientist, was turned ahead; he was still staring into the face of his patient. His light still showed realization struggling feebly there. Perhaps only the chauffeur realized what a steady turn to the left the car made; but he said nothing, only felt his way along till suddenly the road widened a little where a path cut through the dense forest, and was lost in the perspective of gloom. The car slowed up.

"Don't stop!" commanded the scientist sharply. "Go ahead!"

With a sudden spurt the car rushed forward, skimming along easily for a time, and then the heavy jolting told them all that the road was growing rougher, and here, dimly ahead of them, they saw an open patch of sky. It was evidently the edge of the forest. The car went steadily on and out into the open, clear of the forest; then the chauffeur slowed down.

"There isn't any road here," he remarked.

"Go on!" commanded The Thinking Machine tensely. "Road

or no road-straight ahead!"

The chauffeur took a new grip on his wheel and went straight ahead, over plowed ground, apparently, for the bumping and jolting were terrific, and the steering gear tore at the sockets of his arms viciously. For two or three minutes they proceeded this way, while the scientist's light still played on Fairbanks's face and the squint eyes unwaveringly watched every tiny change in it.

"There!" shrieked Fairbanks suddenly, and he came to his feet. "There!"

Hatch and Dr. Pollock saw it at the same instant,-a faint, rosy point in the distance; The Thinking Machine didn't alter the direction of his gaze.

"Straight for the light!" he commanded.

...the room showed every evidence of occupancy... log fire was burning, and its flickering light showed books strewn about here and there... directly in front of them stood a man, tall, angular, aged, and a little bent... hands were knotted, toil worn; and the left forefinger was missing... eyes white and glassy!

With a choking, guttural exclamation of some sort, Fairbanks darted forward and placed the grinning god upon the mantel beside a piece of crystal, then turned back to The Thinking Machine and seized him by the arm, as a child might have sought protection. The Thinking Machine nodded at him, and a grin of foolish delight overspread the pallid face.

Meanwhile, the strange old man, who seemed utterly oblivious of their presence, stood beside the fire gazing into it with sightless eyes. The scientist moved toward him slowly, Fairbanks staring as if fascinated. Finally the scientist extended his hand, which held that of Fairbanks, and touched the old man on the shoulder. He started violently and stretched out both hands instinctively.

Then, while Hatch and Dr. Pollock looked on silently, The Thinking Machine stood motionless, while the strange old man's hands ran up his arm, and the fingers touched his face. The right

forefinger paused for an instant at the eyes, then was laid lightly across the thin lips. It remained there.

"You are blind?" asked the scientist.

The strange old man nodded.

"You are deaf?"

Again the old man nodded. His forefinger still rested lightly on The Thinking Machine's lips.

"You are dumb?" the scientist went on.

Again the nod.

"Deafness, dumbness, blindness, result of disease?"

The nod again.

The Thinking Machine turned and lifted Fairbanks's hand till it rested on the old man's shoulder, then slowly down the arm, while his eyes studied the changed expression on the pallid face.

"Real, real!" said The Thinking Machine slowly to Fairbanks.

"A man— you understand?"

Fairbanks merely started back; but it was evident that some great struggle was going on in his mind. There was a growing interest in his face, the mouth was no longer flabby, the eyes were fixed.

...then there came another sound... a curdling, nerve-racking scream... a scream of agony, of pain, of fear... a hideous, awful thing... suddenly all was silent again.

At the first sound Fairbanks straightened up, then slowly he started forward. Three steps, and he fell. Hatch and Dr. Pollock turned him over and found on his face an expression of utter, cringing fear. The eyes were roving, glittering, and he was babbling again. Only his weakness had prevented flight.

"Stay there!" commanded The Thinking Machine hurriedly, and ran out of the room.

Hatch heard him as he went up the steps; then after a moment there came more screams, rather a sharp, intermittent wailing. Fairbanks struggled feebly, then lay still, flat on his back. A minute more, and The Thinking Machine re-entered the room, leading a woman by the hand—a woman in a gingham apron and

with her hair flying loose about her face. He went straight to the old man, who had stood motionless through it all, and raised the toilworn finger to his lips.

"A woman is here— your wife?" he asked.

The old man shook his head.

"Your sister?"

The old man nodded.

"She is insane?"

Again a nod.

The woman stood for an instant with roving eyes, then rushed toward the mantel with a peculiar sobbing cry. In another instant she had clasped the ugly ivory image to her withered breast, and was crooning to it softly as a mother to her babe. Fairbanks raised himself from the floor, stared at her dully for a moment, then fell back into the arms of Dr. Pollock and Hatch with a sigh. He had fainted.

"I think, gentlemen, this is all," remarked The Thinking Machine.

IT WAS more than a month later that The Thinking Machine called upon Harold Fairbanks at his home. The young man was sitting up in bed, weak but intelligently cognizant of everything about him. There was still an occasional restless roving of his eyes; but that was all.

"You remember me, Mr. Fairbanks?" began the scientist.

"Yes," was the reply.

"You remember the events of the night we were together?"

"Everything, from the time the automobile left the road and the light appeared in the distance," said Fairbanks. "I remember seeing the old man again, and the woman appearing. I know now that he was deaf and dumb and blind, and that she was insane. That seems to clear the situation a great deal." He passed a wasted hand across his brow. "But where is the place. I couldn't find it."

"Listen for just a moment now, please," said The Thinking

Machine soothingly. "You don't remember shooting at your mother? No. Don't excite yourself; she was not wounded. Immediately after that you were placed in a sanatorium. I saw you there. The ivory image had been taken away from you. I went into the room where you were confined and gave it back to you. It acted as I thought it would, quieted you. To make certain that it was this and nothing else that had that effect, I took it away from you again, and you grew violent— as a matter of fact, your condition was such that you overturned a heavy table that was bolted to the floor-broke the bolt. You don't remember that?"

"No."

"I left the image with you. That really was the tangible cause of your condition. If it hadn't been for that, and the brooding over the mystery which it constantly caused, the events of that first night would have passed out of your mind in time. You superinduced self hypnotism with that little image; that is, you must understand that self hypnotism is possible to persons of a certain temperament in a mechanical way, when the object employed is highly polished-shiny, I might say.

"Although that image brought you to the condition you were in, I restored it to you to quiet you physically. That was necessary before I could reproduce for you the events of the first night. You went with us in an automobile, from Pelham to the little store where you had stopped that first night for gasoline. We stopped there for gasoline, and saw the man you saw that first night. As a matter of fact, he had gone away only for a few months, and is now installed in the little store again. This was all done, you understand, to arouse you, if possible, to what was passing around you. In a way it succeeded.

"Well, from the little store we went as you went the night of your first trouble, until we came to the two roads, one leading by sharp turns to the left. Then we went straight to the farm house where the old man and the woman were. There I wanted to convince you that they were real people,-that there was

nothing of the ghostly about them. As a matter of fact, that old man and the woman never knew you were in the house that night. The man had no means of knowing it so long as you never touched him nor he you. You say he brought in something to eat. In all probability that was intended for the woman. You assumed it was for yourself. The fire which compelled you to jump and which resulted in the broken ankle for you, did not destroy the house. There were still marks of it there but the heavy rain extinguished it, and carpenters made the necessary repairs. Now all that is clear, isn't it?"

"Perfectly," was the reply; "but the white thing in the road—the screaming I heard there?"

"There is no mystery whatever about that," continued the scientist calmly. "That road that turns to the left turns more sharply than you imagine. After a little distance it goes almost parallel with the main road, so that following it at night you would, without any knowledge of it, pass within a few hundred feet of a point on the main road. Now the house where these people live is say five hundred feet from the road that turns to the left therefore not more than eight hundred feet, we'll say, from the main road. Thus the screaming you heard in the main road was the woman who lived in that house; the figure you saw was that woman. Just why she had left the house and was wandering around through the wood does not appear; it is certain that she was there, and was frightened by the storm. I can only say that she might have known she was pursued by you and taken refuge on an overhanging limb, and thus gave you the impression of her figure rising above the ground and moving about among the trees.

"It followed naturally that by the time you had taken the roundabout way with your automobile and reached the house she had reached it by going straight ahead through the wood—say for eight hundred feet, and again you heard her screams there. Many things happened in that house that night of no consequence in themselves, but which to your excited

imagination were mysterious. One of these was the candle going out. It is obvious that a gust of wind did that, or else a single drop of water from a leak in the roof. Do you follow me?"

Fairbanks was silent for several minutes as he lay back with his eyes closed. "But the vital thing, the real thing that bewildered me most of all," he said slowly, "you haven't touched. That is, Why was it that after all my searching for the road to the left and the farm house, I didn't find them, if they were there?"

"Of course you don't remember," explained The Thinking Machine; "but the night our party went over the route I asked Dr. Pollock and Mr. Hatch just after we left the little store whether they had noticed anything peculiar. They replied in the negative. As a matter of fact," and the scientist was speaking very quietly, "our automobile went the same way yours had gone— not toward Millen, as you supposed and they supposed, but back toward Pelham. You didn't find the road to the left and the farm house when you were searching, for the reason that they were beyond the little store toward Pelham, eight or ten miles away."

A great wave of relief swept over the young man, and he leaned forward eagerly. "But wouldn't I have known when I turned the wrong way?" he demanded.

The Thinking Machine shrugged his shoulders. "You would have known in daylight, yes," was the reply, "but at night, in a hurry and somewhat confused by the flying dust, you turned the wrong way— toward Pelham, not toward Millen. You see that is possible when I tell you that Dr. Pollock and Mr. Hatch didn't notice that we had turned the wrong way, when there was no storm, and when I asked them if they had noticed anything peculiar."

There was a long silence. Fairbanks dropped back in the bed and lay silent.

"In your manuscript," resumed The Thinking Machine at last, "you mentioned that you seemed to hear some one calling you

as you started away from the little store. This you attributed vaguely to imagination. As a matter of fact, you did hear some one call— it was the man who sold you the gasoline. He knew you intended going to Millen, saw that you had turned the wrong way, and called to tell you so. You didn't wait to hear."

And that was all of it.

45: The Problem of the Auto Cab

HUTCHINSON HATCH gathered up his overcoat and took the steps coming down two at a time. There was no car in sight, nothing on wheels in fact, until—yes, here was an automobile turning the corner, an automobile cab drifting along apparently without purpose. Hatch hailed it.

"Get me out to Commonwealth Avenue and Arden Street in a hurry!" he instructed. "Take a chance with the speed law, and I'll make it worth while. It's important."

He yanked open the door, stepped in, and closed it with a slam. The chauffeur gave a twist to his lever, turned the car almost within its length, and went scuttling off up street.

Safely inside, Hatch became suddenly aware that he had a fellow passenger. Through the gloom he felt, rather than saw, two inquisitive eyes staring out at him, and there was the faintest odor of violets.

"Hello!" Hatch demanded. "Am I in your way?"

"Not in the slightest," came the voice of a woman. "Am I in yours?"

"Why— I beg your pardon," Hatch stammered. "I thought I had the cab alone— didn't know there was a passenger. Perhaps I'd better get out?"

"No, no!" protested the woman quickly. "Don't think of it."

Then from outside came the bellowing voice of a policeman. "Hey, there! I'll report you!"

Glancing back, Hatch saw him standing in the middle of the

street jotting down something in a note book. The chauffeur made a few uncomplimentary remarks about bluecoats in general, swished round a corner, and sped on. With a half smile of appreciation on his lips, Hatch turned back to his unknown companion.

"If you will tell me where you are going," he suggested, "I'll have the chauffeur set you down."

"It's of no consequence," replied the woman a little wearily. "I am going no place particularly— just riding about to collect my thoughts."

A woman unattended, riding about in an automobile at fifteen minutes of eleven o'clock at night to collect her thoughts! And the chauffeur didn't know he had a passenger! The reporter sat oblivious of the bumping, grinding, of the automobile, trying to consider this unexpected incident calmly.

"You are a reporter?" inquired the woman.

"Yes," Hatch replied. "How did you guess it?"

"From seeing you rush out of a newspaper office in such a hurry at this time of night," she replied. "Something important, I dare say?"

"Well, yes," Hatch agreed. "A jewel robbery at a ball. Don't know much about it yet. Just got a police bulletin stating that Mrs. Windsor Dillingham had been robbed of a necklace worth thirty thousand dollars at a big affair she is giving to-night."

The inside of the cab was lighted brilliantly by the electric arc outside, and Hatch had an opportunity of seeing the woman face to face at close range. She was pretty; she was young; and she was well dressed. From her shoulders she was enveloped in some loose cloak of dark material; but it was not drawn together at her throat, and her bare neck gleamed.

There being nothing whatever to say, Hatch sat silently staring out of the window as the automobile whirled into Commonwealth Avenue and slowed up as it approached Arden Street.

"Will you do me one favor, please?" asked the woman.

"Yes, if I can," was the reporter's reply.

"Allow me, please, to get out of the automobile on the side away from the curb, and be good enough to attract the attention of the chauffeur to yourself while I am doing it. Here is a bill," and she pressed something into Hatch's hand. "You may pay the chauffeur a tip for the passenger he didn't know he had."

Hatch agreed in a dazed sort of way, and the automobile came to a stop. He stepped out on the curb, and slammed the door as the chauffeur leaped down from his seat. From the other side came an answering door slam, as if an echo.

FIVE MINUTES later Hatch joined Detective Mallory inside. At just that moment the detective was listening to the story of Mrs. Dillingham's maid.

"There's nothing missing but the necklace," she explained; "so far, at least, as we have been able to find out. Mrs. Dillingham began dressing at about half-past eight o'clock, and I assisted her as usual. I suppose it was half-past nine when she finished. All that time the necklace was in the jewel box on her dressing table. It was the only article of jewelry in the box.

"Well, the butler came up about half-past nine o'clock for his final instructions, and Mrs. Dillingham went into the adjoining room to talk to him. It was not more than a minute later when she sent me down to the conservatory for a rose for her hair. She was still talking to him when I returned five minutes later. I put the rose in her hair, and she sent me into her dressing room for her necklace. When I looked into the jewel box, the necklace was gone. I told Mrs. Dillingham. The butler heard me. That's all I know of it, except that Mrs. Dillingham went into hysterics and fainted, and I telephoned for a doctor."

Detective Mallory regarded the girl coldly; Hatch knew perfectly what was coming. "You are quite sure," asked the detective, "that you did not take the necklace with you when you went down to the conservatory, and pass it to a confederate

on the outside.”

The sudden pallor of the girl, her abject, cringing fright, answered the question to Hatch’s satisfaction even before she opened her lips with a denial. Hatch himself was about to ask a question, when a footman entered.

“Mrs. Dillingham will see you in her boudoir,” he announced.

From the lips of Mrs. Dillingham they heard identically the same story the maid had told. Mrs. Dillingham did not suspect anyone of her household.

For half an hour the detective interrogated her; then there came a rap at the door, and a woman entered.

"Why, Dora!" exclaimed Mrs. Dillingham

The young woman went straight to her, put her arms about her shoulders protectingly, then turned to glare defiantly at Detective Mallory and Hutchinson Hatch. The reporter gasped—it was the mysterious woman of the automobile. An exclamation was on his lips; but something in her eyes warned him, and he was silent.

When, on the following day, Hutchinson Hatch related the circumstances of the theft of Mrs. Dillingham's necklace to Professor Augustus S. F. X. Van Dusen—The Thinking Machine—he did not mention the mysterious woman in the automobile. However curious those incidents in which he and she had figured were, they were inconsequential, and there was nothing to connect them in anyway with the problem in hand. The strange woman's meeting with Mrs. Dillingham in the reporter's presence had convinced him that she was an intimate friend.

"Just what time was the theft discovered?" inquired The Thinking Machine.

"Within a few minutes of half-past nine."

"At what time did most of the guests arrive?"

"Between half-past nine and ten."

"Then at half-past nine," continued the scientist, "there could not have been many persons there?"

"Perhaps a dozen," returned the reporter.

"And who were they?"

"Their names, you mean? I don't know."

"Well, find out," directed The Thinking Machine crustily. "If the servants are removed from the case, and there were a dozen other persons in the house, common sense tells us to find out who and what they were. Suppose, Mr. Hatch, you had attended that ball and stolen that necklace; what would have been your natural inclination afterward?"

Hatch stared at him blankly for a minute, then smiled

whimsically. "You mean how would I have tried to get away with it?" he asked.

"Yes. When would you have left the place?"

"That's rather hard to say," Hatch declared thoughtfully.

"But I think I should either have gone before anybody else did, through fear of discovery, or else I should have been one of the last, through excess of caution."

"Then proceed along those lines," instructed The Thinking Machine. "You might almost put that down as a law of criminology. It will enable you in the beginning, therefore, to narrow down the dozen or so guests to the first and last who left."

Deeply pondering this little interjection of psychology into a very material affair, Hatch went his way. In the course of events he saw Mrs. Dillingham, who, out of consideration for her guests, flatly refused to give their names.

Luckily for Hatch, the butler didn't feel that way about it at all. This was due partly to the fact that Detective Mallory had given him a miserable half-hour, and partly, perhaps, to the fact that the reporter oiled his greedy palm with a bill of two figures.

"To begin with," said the reporter, "I want to know the names of the first dozen or so persons who arrived here that evening— I mean those who were here when you went up to speak with Mrs. Dillingham."

"I might find out, sir. Their cards were laid on the salver as they arrived, and that salver, I think, has remained undisturbed. Therefore, the first dozen cards on it would give you the names you want."

"Now, that's something like," commented the reporter enthusiastically. "And do you remember any person who left the house rather early that evening?"

"No, sir," was the reply. Then suddenly there came a flash of remembrance across the stoical face. "But I remember that one gentleman arrived here twice. It was this way. Mr. Hawes Campbell came in about eleven o'clock, and passed by without

handing me a card. Then I remembered that he had been here earlier and that I had his card. But I don't recall that anyone went out, and I was at the door all evening except when I was up stairs talking to Mrs. Dillingham."

On a bare chance, Hatch went to find Campbell. Inquiry at his two clubs failed to find him, and finally Hatch called at his home.

At the end of five minutes, perhaps, Hatch caught the swish of skirts in the hallway, then the portières were thrust aside, and-again he was face to face with the mysterious woman of the automobile.

"My brother isn't here," she said calmly, without the slightest sign of recognition. "Can I do anything for you?"

Her brother! Then she was Miss Campbell, and Mrs. Dillingham had called her Dora— Dora Campbell!

"Well—er—" Hatch faltered a little, "it was a personal matter I wanted to see him about."

"I don't know when he will return," Miss Campbell announced.

Hatch stared at her for a moment; he was making up his mind. At last he took the bit in his teeth. "We understand, Miss Campbell," he said at last slowly and emphatically, "that your brother, Hawes Campbell has some information which might be of value in unraveling the mystery surrounding the theft of Mrs. Dillingham's necklace."

Miss Campbell dropped into a chair, and unconsciously Hatch assumed the defensive. "Mrs. Dillingham is very much annoyed, as you must know," Miss Campbell said, "about the publicity given to this affair; particularly as she is confident that the necklace will be returned within a short time. Her only annoyance, beyond the wide publicity, as I said, is that it has not already been returned."

"Returned?" gasped Hatch.

Miss Campbell shrugged her shoulders. "She knows," she continued, "that the necklace is now in safe hands, that there is

no danger of its being lost to her; but the situation is such that she cannot demand its return."

"Mrs. Dillingham knows where the necklace is, then?" he asked.

"Yes," replied Miss Campbell.

"Perhaps you know?"

"Perhaps I do," she responded readily. "I can assure you that Mrs. Dillingham is going to take the affair out of the hands of the police, because she knows her property is safe— as safe as if it was in your hands, for instance. It is only a question of time when it will be returned."

"Where is the necklace?" Hatch demanded suddenly.

Again Miss Campbell shrugged her shoulders.

"And what does your brother know about the affair?"

"I can't answer that question, of course," was the response.

"Well, why did he go to Mrs. Dillingham's early in the evening, then go away, and return about eleven o'clock?" insisted the reporter bluntly.

For the first time there came a change in Miss Campbell's manner, a subtle, indefinable something which the reporter readily saw but to which he could attach no meaning.

"I can't say more than I have said," she replied after a moment. "Believe me," and there was a note of earnestness in her voice, "it would be far better for you to drop the matter, because otherwise you may be placed in-in a ridiculous position."

And that was all-a threat, delicately veiled it is true, but a threat nevertheless. She arose and led the way to the door.

Hatch didn't realize the significance of that remark then, nor did it occur to him that the mysterious affair in the automobile had not been mentioned between them; for here was material, knotty, incoherent, inexplicable material, for The Thinking Machine, and there he took it. Again he told the story; but this time all of it— every incident from the moment he hailed the automobile in front of his office on the night of the robbery until

Miss Campbell closed the door.

"Why didn't you tell me all of it before?" demanded The Thinking Machine irritably.

"I couldn't see that the affair in the automobile had any connection with the robbery," explained the reporter.

"Couldn't see!" stormed the eminent man of science.

"Couldn't see! Every trivial happening on this whole round earth bears on every other happening, no matter how vast or how disconnected it may seem; the correlation of facts makes a perpetually unbroken chain. In other words, if Mrs. Leary hadn't kept a cow, Chicago would not have been destroyed by fire. Couldn't see!"

For an instant The Thinking Machine glared at him; and the change from petulant annoyance to deep abstraction, as that singular brain turned to the problem in hand, was almost visible. It was uncanny. Then the scientist dropped back into his chair with eyes turned upward, and long slender fingers pressed tip to tip. Ten minutes passed, twenty, thirty, and he turned suddenly to the reporter.

"What was the number of that automobile?" he demanded.

Hatch grinned in sheer triumph. Of all the questions he could have anticipated this was the most unlikely, and yet he had the number set down in his note book where it would ultimately become a voucher in his expense account. He consulted the book.

"Number 869019," he replied.

"Now, find that automobile," directed The Thinking Machine. "It is important that you do so at once."

"You mean that the necklace—" Hatch began breathlessly.

"When you bring the automobile here, I will produce the necklace," declared The Thinking Machine emphatically.

Hatch returned half a dozen hours later with troubled lines in his face.

"Automobile No. 869019 has disappeared, evaporated into air," he declared with some heat. "There was one that night,

because I was in it, and the highway commission's records show a private cab license granted to John Kilrain under the number; but it has disappeared."

"Where is Kilrain?" inquired The Thinking Machine.

"I didn't see him; but I saw his wife," explained the reporter. "She didn't know anything about automobile No. 869019, or said she didn't. She said his auto car was—"

"No. 610698," interrupted The Thinking Machine. It was not a question; it was the statement as of one who knew.

Hatch stared from the scientist to the note book where he had written down the number the woman gave him, and then he looked his utter astonishment.

"Of course, that is the number," continued The Thinking Machine, as if some one had disputed it. "It is past midnight now, and we won't try to find it; but I'll have it here tomorrow at noon. We shall see for ourselves how safely the necklace has been kept."

Detective Mallory entered and glanced about inquiringly. He saw only The Thinking Machine and Hutchinson Hatch.

"I sent for you," explained the scientist, "because in half an hour or so I shall either place the Dillingham necklace in your hands, or turn over to you the man who knows where it is. You may use your own discretion as to whether or not you will prosecute. Under all the circumstances, I believe the case is one for a sanatorium, rather than prison. In other words, the person who took the necklace is not wholly responsible."

"Who is it?" demanded the detective.

"You don't happen to know all the facts in this case," continued The Thinking Machine without heeding the question. "I got them all, only after Mr. Hatch, at my suggestion, had located the thief. Originally I began where you left off. I believed you had eliminated the servants, and presumed there was not a burglary. Ultimately this led to Hawes Campbell in a manner which is of no interest to you. Then I got all the facts.

"When Mr. Hatch left his office to go to Mrs. Dillingham's, he

took an automobile which happened to be passing,” resumed the scientist. “It was a cab, No. 869019. Inside that cab he found, much to his astonishment, a woman— a young woman in evening dress. She made the surprising statement that the chauffeur didn’t know she was there, and that she was not going anywhere— was merely riding around to collect her thoughts. And this was, please remember, about eleven o’clock at night. On its face this incident had no connection with the jewel theft; but by a singular chain of coincidences, subsequently developed, it seemed that Mr. Hatch had arrived at the solution of the mystery before he even knew the circumstances of the theft.”

Detective Mallory nodded doubtfully. “But how does that connect with the--” he began.

“Subsequent developments establish a direct connection,” interrupted The Thinking Machine. “We have the woman in the automobile. We shall presume that she must have had some strong motive for leaving a house at that time of night and doing the apparently purposeless things that she did do. We don’t know this motive from these facts— we only know there was a motive.

“Now when you and Mr. Hatch were talking to Mrs. Dillingham, a woman entered the room. Mr. Hatch recognized her immediately as the woman in the automobile. Everything indicated that she was an intimate friend of Mrs. Dillingham’s. So we pass on to the point where Mr. Hatch found that Hawes Campbell arrived at the ball early, went away again, then returned after eleven o’clock. Mr. Hatch wanted to know why he left, and went to his home to inquire. Campbell’s sister met him there. She was the woman he had met in the automobile. So we have Campbell leaving the ball, immediately after the theft, say, and his sister running away from her home sometime between nine-thirty and eleven, and secreting herself in an automobile.

“Why? I have said, Mr. Mallory, that imagination— the ability to bridge gaps temporarily— is the most essential part of the logical mind. Now, if we imagine that Campbell stole the

necklace, that he went home, that his sister found it out, that there was some sort of scene which terminated in her flight with the necklace, we account for absolutely every incident preceding and following Mr. Hatch's arrival at the Dillingham place.

"I have made inquiries. The Campbells are worth, not thousands, but millions. Therefore, the question. Why should Hawes Campbell steal a necklace? The answer, kleptomania. And again, it was known to the sister, who tried in her own manner to return the stolen property and avoid the scandal. When she was in the automobile, she was trying to collect her thoughts-trying to invent a way to return the necklace. It was the merest chance that Mr. Hatch happened to get into that particular vehicle.

"Now, we come to the most difficult part of the problem," and The Thinking Machine dropped back still further into the cavernous depths of his chair. "What would a frightened, perhaps hysterical, woman do with that necklace? From the fact that it has not been returned, we know that she didn't venture into the house with it, and leave it casually in any one of a hundred places where it might have been discovered without danger to herself. Yet everything indicates that she had it while in the cab. The obvious thing which suggests itself is that she hid it in the cab, intending to regain possession of it later and return it. Now, that cab number was 869019. Strangely enough, after Mr. Hatch left the cab it seems to have disappeared. The chauffeur, John Kilrain, has another cab number now, 610698—that is, auto cab No. 869019 was made to disappear by the simple act of turning the number board upside down, giving us 610698."

"Well, by George!" exclaimed Detective Mallory. No mere words would convey the reporter's astonishment; he gasped.

"Now," continued The Thinking Machine after a moment, "there are two reasons, both good, why auto cab number 869019 should have disappeared. The vital one, it seems to me, is that Kilrain discovered the necklace inside and kept it; the

other is that he was threatened with arrest by the policeman who took his number for speeding, and to avoid a fine disguised the identity of his cab. There are one or two other possibilities; but if the necklace isn't found in the automobile, I should advise, not arrest, but a close watch on Kilrain, both at his home and in his intercourse with other chauffeurs at the various cab stands."

There was a rap at the door, and Martha appeared. "Did you want an automobile, sir?"

"We'll be right out," returned the scientist.

AND so it came about that The Thinking Machine, Detective Mallory, and Hutchinson Hatch searched the very vitals of auto cab No. 869019, temporarily masquerading as No. 610698, while Kilrain stood by in perturbed amazement. At the end he was allowed to go.

"Remember, please, what I advised you to do," The Thinking Machine reminded Detective Mallory.

With eyes that were heavy with sleep Hutchinson Hatch crawled out of bed and answered the insistent ringing of his telephone. The crabbed voice of The Thinking Machine came over the wire, in a question.

"If Miss Campbell was so anxious to return the necklace that night, she couldn't have done better, could she, than to have handed it to a reporter who was going to the house to investigate the robbery?"

"I don't think so," Hatch replied wonderingly.

"Did you have on your overcoat that night?"

"I had it with me."

"Suppose you go look in the pockets, and—"

Hatch dropped the receiver, already inspired by the suggestion, and dragged his overcoat out of the closet. In the left hand lower pocket was a small package. He opened it with trembling fingers. There before his eyes lay the iridescent, gleaming bauble. It had been in his possession from an hour after it was stolen until this very instant. He rushed back to the

telephone.

"I've got it!" he shouted.

"Silly of me not to have thought of it in the first place," came the querulous voice of The Thinking Machine. "Good night."

46: The Problem of the Knotted Cord

WITH THE brilliant glare of the noonday sun shining full into his upturned eyes, a venerable man sat beside an open window. The gray-crowned head was a noble one, but strength and rugged manhood was gone; there was only the weakness of years and disaster, illumined and softened by a smile— the appealing, pathetic smile of helplessness. The window framed a vista of green landscape, broken by a dimpled splotch of blue where the sea ran in and lapped the shore, and, far away, a village sprinkled on the hills. But he looked upon it all with sightless eyes— eyes which turned instinctively toward the light as the blind ever seek a ray through their enshrouding gloom. A grateful tang of salt air drifted in, and he breathed deeply of its fragrance.

For a long time he sat thus, silently, then from a distant room came the trill of a song. His smile grew into an expression of infinite tenderness as he listened, and then the closing of a door broke the melody. He sat expectantly for a minute or so, and gradually his mind wandered back into the dreamy thoughtfulness which the voice had interrupted. After awhile he heard a light step in the hall, and then some other sound which he could not interpret. The steps approached the door of the room where he sat, and paused.

"Is that you, deary?" he asked gently.

There was no response, and he turned his sightless eyes expectantly toward the entrance.

"What is it, Mildred?" he inquired.

Again he heard the peculiar sound to which he had been

unable to attach a meaning, but still there was no answer.

"Mildred!" he called sharply. He turned quickly in his chair, with a vague uneasiness in his manner, and gripped the arms as if to rise. "Mildred!" he repeated. "Why don't you answer me?"

Suddenly there came an answer— a heart-racking, terrifying answer— shriek after shriek of agony, terror, helplessness. It was here, in this very room in which he stood, but the impenetrable pall of blindness veiled it all. There was a shuffling as of feet for an instant, a gurgling, despairing cry, then the old man tottered forward toward the door.

"Mildred, Mildred, Mildred!" he called despairingly. "What is it, child!"

There was a sound as of a soft body falling, then came utter silence. With straining heart and groping hands the old man kept on blindly seeking. Again he caught the meaningless sound, which he had heard before. One outstretched hand brushed against something which was instantly removed beyond reach. Intuitively he knew that something— somebody— menaced him, that Mildred his granddaughter was now or had been in peril— perhaps it was worse. There was some quick movement to his right, and the old man stretched out his quivering hands straight before him with a pitiful, helpless gesture.

"I am blind!" he said simply.

For a moment he stood there, with hands still outstretched, waiting. For what? He didn't know. At last from the hall outside came a sliding, whispering sound, and the front door closed noiselessly. Instantly he started in that direction. Despite his blindness, he knew his way here in the little house where he had lived for years alone with his granddaughter.

In the hall another thought came to him. Whoever— whatever— it was, had come and gone. And Mildred? He turned and started back toward the room he had just left. One aged hand slipped along the wall to the door frame, and he turned in. For an instant he listened. He heard nothing.

"Mildred?" he called. "My God, child! where are you? What

has happened?"

Still silence. He entered and began groping around pitifully. Mildred must be there, somewhere. And finally, as he groped on, he came upon her. One foot struck some yielding obstacle, and he dropped on his knees beside it. A touch of his fingers on the face told him it was Mildred. She was breathing faintly— a gurgle, which as he listened grew fainter.

His brain was instantly awakened to the full possibilities. She had been stabbed, or struck down, perhaps. There had been no shot, and yet, as his hands moved rapidly over the slender form, he found no wound on head, face, or body. The faint gasping breath grew fainter as he listened — she was dying under his hands, and he was helpless, unable to see even what was the matter.

"Mildred, Mildred, Mildred!" he repeated, and he shook the inert body in a frenzy of fear and anxiety.

And then came the end. There was a last faint gurgle, a spasmodic twitching of the body, and it lay rigid. And there crouching on the floor beside his dead, the aged grandfather was found a few minutes later. His sightless eyes were dry and staring, and his lip moved silently in prayer.

One of the first things to come under the observation of the police when they began their investigation of the strange murder of pretty little Mildred Barrett— she was hardly fourteen years old— was the fact that if her grandfather, Wendell Curtis Barrett, had not been blind, he could have saved her life. The girl had been strangled, garroted, with manila twine— a plain cord which is in every day use for the tying of heavy bundles. This twine had been drawn so tight about the child's throat that it sank deep into the white soft flesh and slowly strangled her to death. Had her grandfather been able to see, had he not overlooked the possibility of such a thing, he could probably have saved her by cutting the twine. This, at least, was what the medical examiner said.

Outside attention had been attracted to the tragedy by two

men who were driving past the little house overlooking the sea. They heard the child's screams and stopped to investigate, entering by that front door through which, not more than a few seconds before, the slayer of the child had passed. But they had seen no one, nor had they heard anything except the child's screams. They immediately notified the police. The strangler's cord was not found until Detective Mallory arrived with a couple of his men and Hutchinson Hatch, a newspaper reporter.

The detective examined the garroter's twine closely. There was one knot in it just where it pressed down upon the windpipe; and another at the back of the neck where powerful fingers had drawn it tight and fastened it with a knot similar to the running of a lasso.

"It's a good job, all right," commented Detective Mallory heartlessly enough as he scrutinized the two knots. "It was prepared for just such a purpose, and well prepared at that."

"It isn't unlike the garroting cord that the thugs of India use," remarked Hatch.

"Is that so?" inquired the detective, as he turned quickly on the newspaper man. They had met before many times, and there was a professional friendship between them which amounted almost to enmity. "That may be useful to know."

The reporter remained at the house and in the neighborhood for several hours while the detectives continued their investigations, and then summarized the entire affair, with every established fact, for the benefit of Professor Augustus S. F. X. Van Dusen — The Thinking Machine. They were well acquainted, these two, an acquaintance which had begun with the chess game incident which had given to the noted scientist the soubriquet by which he had since become known beyond the narrow pale of science. On a dozen or more occasions The Thinking Machine had interested himself in every day problems at the request of the newspaper man, and had invariably woven a woof from tangled, disconnected threads which the reporter brought to him.

"It's absolutely astounding," the reporter told the scientist now, "not only the method of the murder— right within reach, almost, of a man who was totally blind— but there is nothing to indicate any motive, so—"

"Begin at the beginning, Mr. Hatch," interrupted The Thinking Machine crustily. "When you do a sum in arithmetic you put down all the figures, don't you? Well, give me all the figures."

"Well, here is every known fact in the case," explained the reporter. "Mr. Barrett is about seventy-two years old; his granddaughter Mildred was a little less than fourteen. She was the only relative he had in the world, and had lived with him in the little house, which he owns, since the death of her father, who was killed in the Spanish-American War. They kept no servant, as the child, with a little assistance from the old man, was able to do practically all the simple housework. Occasionally they called in a woman who lived half a mile away to assist in house cleaning and the heavier work. It seems that Barrett has an income of about a thousand a year, and they were able to live comfortably on this.

"Very few persons ever called at the house, and preceding the tragedy there was no caller, at least that Barrett knows of. The child was somewhere in the rear of the house, and he was sitting in his own room. He heard no voices, no sound, nothing except the child singing, until she came along the hall, evidently to his room. The grim horror of the whole thing from that time on has unnerved the old man so that he is almost in a state of collapse.

"To me the mystery of the thing is intensified by the fact that the murdered girl is a mere child. Her extreme youth would indicate at least that there could have been no love affair, certainly from all I have been able to learn there was not. And her youth, too, would make it seem improbable that she could have had an enemy who would have gone to such an extreme. Besides, she seems to have been a sweet-tempered, sunny little

girl, intelligent, bright, and lovable. Nothing whatever was stolen. There is positively no clue in the world, not even a vagrant footprint, or any small thing that might have been left to indicate who was there— that is, of course, except the cord with which she was strangled.”

“Would the old man have benefited by the child’s death?” inquired The Thinking Machine.

“In no way at all,” Hatch replied positively, “nor would anyone else. There is no property tied up, as far as anyone can find out, and the miserable little sum which it cost him to keep the child is not so much as he would have had to pay to employ a servant in her absence.”

The Thinking Machine sat for a long time with the squint blue eyes turned upward, and his white slender fingers pressed tip to tip. Minute wrinkles in his enormous brow grew momentarily deeper. “It’s a remarkable crime, Mr. Hatch,” he said at last, “perhaps the most remarkable that I have ever met. As you say, the youth of the child removes all the ordinary motives.” He was silent for a moment. “Our greatest criminals are never caught, and rarely ever heard of, Mr. Hatch,” he went on musingly. “The greatest crimes are never discovered, as a matter of fact. One might readily conceive of a brain so keen, so accurate, that in, say, a murder, there would be nothing to indicate one. I think perhaps in this case we have a difficult one. It would be best for me to see and talk with Mr. Barrett in person.”

They found the aged blind man, and he repeated for them in the minutest detail every fact as he remembered it. The Thinking Machine listened throughout with keen attention, and at the end asked some questions.

“You say, Mr. Barrett, that in addition to your granddaughter’s footsteps and voice you heard some other slight sound. Could you describe it?”

“I hardly think so,” was the reply. “It was strange— peculiar.”

“Was it the sound of a human voice, or of something being

moved?" insisted the scientist.

"It could have been made by the human voice, I suppose; but it also could have been made by twanging a rubber band. It sounded guttural, unreal, uncanny."

"And the thing you touched when you started toward your granddaughter, after she screamed?" asked the scientist. "What did that seem to be? Clothing, flesh, wood, some one's hair, or what?"

"I— I— don't know," said Barrett helplessly. "It was a sense of having touched something, rather than actual contact with it. It might have been hair, but I don't know what it was."

The Thinking Machine stared at him curiously for a moment. "How long have you been blind, Mr. Barrett?"

"Only about two years."

The Thinking Machine nodded as if he understood, and then for an hour he sat questioning the old man. Never for a moment did the wrinkles leave his brow, and never for a moment was his tense attention relaxed. At the end he arose, and Hatch looked at him inquiringly. He shook his head.

He spent another hour in an examination of the strangler's cord, the knots, the body, and of the premises. Every nook and corner of the little house was searched with the utmost care, and every foot of the little plot of ground surrounding it was carefully gone over. Gradually his radius of observation widened until he had covered the ground a hundred feet every way from the house in every direction. Then he went inside again. One of the detectives, Cunningham, met him in the hall.

"There is no question whatever of the innocence of the two men who say they heard the girl scream and came in?" he asked.

"There doesn't seem to be," replied Cunningham. "We have taken pains to confirm their stories, and to be certain of their identity. They seem to be all right."

"I imagined so," remarked the scientist. "What about the woman who came here occasionally to assist in the housework?"

"We also looked into that. She had been spending the day with a friend in a village a dozen miles away. We have proof of that."

The Thinking Machine turned and walked into the room where Barrett sat. "Would you be prepared to say," he asked, "that the sounds you heard were made by an animal of any sort? That is, I mean an ape, say, or a baboon?"

"I couldn't say," replied Barrett.

"Or that the hair you touched was bristly like the hair of an animal?"

"I couldn't say," replied Barrett. "I don't even know that it was hair. Whatever it was, it was instantly withdrawn beyond my reach and I had a singular intuitive feeling of being in great peril myself."

For the second time The Thinking Machine picked up and examined the strangler's cord. Again he shook his head.

"What do you make of it?" Hatch ventured at last.

The Thinking Machine squinted at him dully. "I don't make anything of it," he replied frankly. "There is no starting point. I have all unknown quantities. When every conceivable motive is eliminated as seems to be the case here, we must naturally turn to that thing which does things without motive— a brute— say, an ape." He held up the knotted cord. "But those knots were never tied by any but human hands; a directing intelligence fashioned the noose, and human hands applied it. That is indisputable, so we haven't even the ape to start with. This is perhaps the first case I have ever been interested in where all possibilities seem to be removed."

Hatch stared at the scientist a little blankly for a moment. He had never before heard just such an admission from him. "Well," asked the reporter helplessly, "where are we going with it?"

The Thinking Machine didn't say. Instead, he planted his No. 8 hat more firmly on his enormous straw yellow head, and returned to his apartments.

It was ten minutes of one o'clock that night, and Hatch had

just finished writing the story of the tragedy for his newspaper, when there came a call for him on the telephone. It was The Thinking Machine.

"Do you know of any crime similar to this any time recently?" asked the scientist. "I mean a crime where the circumstances resembled these in any manner?"

The reporter was thoughtful for a moment. "No," he replied.

"Well, I'm very much afraid that there will be another just like it," volunteered The Thinking Machine enigmatically.

"Why, who— what?" asked Hatch in amazement.

"Of course I don't know who," retorted the scientist crabbedly. "If I did I would prevent it. I may say I know what, but it doesn't do us any good. Good night."

Three days later came another tragedy. Bartow Gillespie and his brother James were found dead in a room together ten miles from the scene of the Barrett affair. Bartow, the eldest, had been strangled to death precisely as Mildred Barrett had been. James Gillespie lay five feet away, with a bullet in his brain. The murderer's revolver had fallen between them. One shot had been fired— the shot which entered James's head at the base of his brain.

The Thinking Machine and Hatch were on the scene of this second crime within a few hours. Again there was a detailed examination to be made, and the scientist made it conscientiously, from the strangler's cord, identical in every way with the one that had slain Mildred Barrett, to the revolver with its one empty chamber. The Thinking Machine weighed the weapon in his hand thoughtfully, and then turned to Detective Mallory.

"Whose is this?" he asked.

"If I knew that we could not only solve this mystery, but also the Barrett affair," retorted the detective grimly.

Then The Thinking Machine did a singular thing. He bent down to within a few inches of the upturned face of James Gillespie, and squinted steadily for a minute or more into the

dead, glassy eyes. This done, he ran his slender white fingers through the dead man's hair several times.

"I know whose revolver it is now," he said as he arose. "It belonged to the other dead man there— Bartow Gillespie."

Detective Mallory regarded him in amazement for an instant, and then a slight smile about his lips showed what he thought of it.

"I suppose, professor," he said, "you are going to tell us that Bartow Gillespie killed his brother, and then strangled himself with this cord?"

"No," replied the scientist almost pleasantly.

"Well, then," Mallory ventured, "it's going to be that Bartow Gillespie shot his brother, and then his brother strangled him to death with the cord?"

"No," said the scientist again. "I was going to tell you that James Gillespie attacked his brother Bartow, and attempted to strangle him— did strangle him; that there was a struggle— these two overturned chairs show that; and that Bartow Gillespie, with the strangler's cord about his throat, killed his brother with the revolver. Remember, please, that when James Gillespie murdered Mildred Barrett, he was dealing with a child, but here he was dealing with a man, and a powerful man, who fought fiercely after the knot was fastened.

"We may assume that the revolver was Bartow Gillespie's, and that it was in his possession at the time he was attacked. Why? Because if it had been in James Gillespie's possession he would probably have finished his work by shooting his brother, when his brother began his struggle. Certainly James Gillespie did not kill himself, because the wound is in the back of his head. I am stating these things not as facts but as probabilities. When we know positively that the weapon was Bartow Gillespie's, then the probabilities become facts."

There was still a light, skeptical expression about Detective Mallory's mouth. "And on the other hand," he said, "we have the probability that the strangler came here and killed Bartow

Gillespie, that the sound of the struggle attracted James Gillespie's attention, that he came in to investigate, that he was threatened and started to go out, and that the strangler fired the shot which struck him in the back of the head."

"Disproved flatly by two points," said The Thinking Machine curtly. "First, the fact that the strangler deliberately left his revolver, if we accept your hypothesis and second, by the fact that—" He paused and turning stared curiously down into the face of James Gillespie.

Detective Mallory waited impatiently for a moment; then, "And the second is what?" he asked.

"Do you know the motive for the murder of the Barrett child?" asked the scientist irrelevantly.

"No," said Detective Mallory in some surprise.

"And do you know the motive for this double crime, under your hypothesis?"

"No."

"Well, the motive is written here," and the scientist turned and thrust a long finger into the pallid face of James Gillespie. "It is in the eyes, in the mouth, and still again it's written here." He pulled aside the tumbled hair, and disclosed a bare spot. "Here is a scar, left months, perhaps years, ago by some serious injury."

"Why, I don't see—" began the detective protestingly.

"Of course, you don't see!" snapped The Thinking Machine. "What was found in James Gillespie's pockets?"

"I don't know that there has been an examination," said Mallory. "We always leave those things to the medical examiner, where there is no doubt of a man's identity."

With deft fingers the scientist ransacked the slain man's clothes. From a hip pocket he drew a little bundle and threw it on the table before Mallory. "And there is your final proof," he said. "It isn't even necessary now to prove that the revolver was Bartow Gillespie's— we know it— know it as inevitably as that two and two make four, Mr. Mallory, not sometimes but all the

time.”

The little bundle that he had thrown on the table was a roll of plain manila twine— just a couple of yards. At last the detective was beginning to see.

“But what possible motive?” he asked.

“I told Mr. Hatch when I investigated the Barrett affair that when all conceivable human motives were eliminated, as seemed to be the fact in this case, there remained only the thing — the creature, which will act without motive— an ape, for instance,” interrupted The Thinking Machine. “I told him afterward that there would probably be a second crime under the same circumstances, and also that we were powerless to prevent it. This is the crime. There is no motive for either.

“The old scar on this man’s head, the expression of his face, and his eyes particularly, show conclusively that he was a maniac — just a shade the intellectual superior of an ape, with all the cunning of humanity distorted and diseased into a homicidal mania. An examination of his brain at the autopsy will prove all this even to you, Mr. Mallory. How long he has been a maniac I don’t know; your investigations will develop that. That is all, I think. Good day.”

The Thinking Machine and Hutchinson Hatch walked down the street together.

“How is it,” inquired the reporter, “that James Gillespie didn’t kill Barrett at the same time he killed the little girl?”

“I don’t know,” was the reply. “It is difficult enough, Mr. Hatch, to follow the mental workings of a sane man; when we have a maniac, no one can say what he will do next. We don’t look into the matter, but I dare say that Gillespie never knew that child he killed, and could have had no motive.”

And subsequently this proved to be true.

47: The Phantom Motor Car

TWO DAZZLING white eyes bulged through the night as an automobile swept suddenly around a curve in the wide road and laid a smooth, glaring pathway ahead. Even at the distance the rhythmical crackling-chug informed Special Constable Baker that it was a gasoline car, and the headlong swoop of the unblinking lights toward him made him instantly aware of the fact that the speed ordinance of Yarborough County was being a little more than broken— it was being obliterated.

Now the County of Yarborough was a wide expanse of summer estates and superbly kept roads, level as a floor and offered distracting temptations to the dangerous pastime of speeding. But against this was the fact that the county was particular about its speed laws, so particular in fact that had stationed half a hundred men upon its highways to abate the nuisance. Incidentally it had found that keeping record of the infractions of the law was an excellent source of income.

'Forty miles an hour if an inch,' remarked Baker to himself.

He arose from a camp-stool where he was wont to make himself comfortable from six o'clock until midnight on watch, picked up his lantern, turned up the light and stepped down to the edge of the road. He always remained on watch at the same place— at one end of a long stretch which autoists had unanimously dubbed The Trap. The Trap was singularly tempting— perfectly macadamized road bed lying between two tall stone walls with only enough of a sinuous twist in it to make each end invisible from the other. Another man, Special Constable Bowman, was stationed at the other end of The Trap and there was telephonic communication between the points, enabling the men to check each other and incidentally, if one failed to stop a car or get its number, the other would. That at least was the theory.

So now, with the utmost confidence, Baker waited beside the road. The approaching lights were only a couple of hundred yards away. At the proper instant he would raise his lantern, the car would stop, its occupants would protest and then the county

would add a mite to its general fund for making the roads even better and tempting autoists still more. Or sometimes the cars didn't stop. In that event it was part of the Special Constables' duties to get the number as it flew past, and reference to the monthly automobile register would give the name of the owner. An extra fine was always imposed in such cases.

Without the slightest diminution of speed the car came hurtling on toward him and swung wide so as to take the straight path of The Trap at full speed. At the psychological instant Baker stepped out into the road and waved his lantern.

'Stop!' he commanded.

The crackling-chug came on, heedless of the cry. The auto was almost upon him before he leaped out of the road— a feat at which he was particularly expert— then it flashed by and plunged into The Trap. Baker was, at the instant, so busily engaged in getting out of the way that he couldn't read the number, but he was not disconcerted because he knew there was no escape from The Trap. On the one side a solid stone wall eight feet high marked the eastern boundary of the John Phelps Stocker country estate, and on the other side a stone fence nine feet high marked the western boundary of the Thomas Q. Rogers country estate. There was no turnout, no place, no possible way for an auto to get out of The Trap except at one of the two ends guarded by the special constables. So Baker, perfectly confident of results, seized the phone.

'Car coming through sixty miles an hour,' he bawled. 'It won't stop. I missed the number. Look out.'

'All right,' answered Special Constable Bowman.

For ten, fifteen, twenty minutes Baker waited expecting a call from Bowman at the other end. It didn't come and finally he picked up the phone again. No answer. He rang several times, battered the box and did some tricks with the receiver. Still no answer. Finally he began to feel worried. He remembered that at that same post one Special Constable had been badly hurt by a reckless chauffeur who refused to stop or turn his car when the

officer stepped out into the road. In his mind's eye he saw Bowman now lying helpless, perhaps badly injured. If the car held the pace— at which it passed him it would be certain death to whoever might be unlucky enough to get in its path.

With these thoughts running through his head and with genuine solicitude for Bowman, Baker at last walked on along the road of The Trap toward the other end. The feeble rays of the lantern showed the unbroken line of the cold, stone walls on each side. There was no shrubbery of any sort, only a narrow strip of grass close to the wall. The more Baker considered the matter the more anxious he became and he increased his pace a little. As he turned a gentle curve he saw a lantern in the distance coming slowly toward him. It was evidently being carried by someone who was looking carefully along each side of the road.

'Hello!' called Baker, when the lantern came within distance. 'That you, Bowman?'

'Yes,' came the hallooed response.

The lanterns moved on and met. Baker's solicitude for the other constable was quickly changed to curiosity.

'What're you looking for?' he asked.

'That auto,' replied Bowman. 'It didn't come through my end and I thought perhaps there had been an accident so I walked along looking for it. Haven't seen anything.'

'Didn't come through your end?' repeated Baker in amazement. 'Why it must have. It didn't come back my way and I haven't passed it so it must have gone through.'

'Well, it didn't,' declared Bowman conclusively. 'I was on the lookout for it, too, standing beside the road. There hasn't been a car through my end in an hour.'

Special Constable Baker raised his lantern until the rays fell full upon the face of Special Constable Bowman and for an instant they stared each at the other. Suspicion glowed from the keen, avaricious eyes of Baker.

'How much did they give you to let em' by?' he asked.

'Give me?' exclaimed Bowman, in righteous indignation.
'Give me nothing. I haven't seen a car.'

A slight sneer curled the lips of Special Constable Baker.

'Of course that's all right to report at headquarters,' he said, 'but I happen to know that the auto came in here, that it didn't go back my way, that it couldn't get out except at the ends, therefore it went your way.' He was silent for a moment. 'And whatever you got, Jim, seems to me I ought to get half.'

Then the worm— i.e., Bowman— turned. A polite curl appeared about his lips and was permitted to show through the grizzled mustache.

I guess,' he said deliberately, 'you think because you do that, everybody else does. I haven't seen any autos.'

'Don't I always give you half, Jim?' Baker demanded, almost pleadingly.

'Well I haven't seen any car and that's all there is to it. If it didn't go back your way there wasn't any car.' There was a pause; Bowman was framing up something particularly unpleasant. 'You're seeing things, that's what's the matter.'

So was sown discord between two officers of the County of Yarborough. After awhile they separated with mutual sneers and open derision and went back to their respective posts. Each was thoughtful in his own way. At five minutes of midnight when they went offduty Baker called Bowman on the phone again.

'I've been thinking this thing over, Jim, and I guess it would be just as well if we didn't report it or say anything about it when we go in,' said Baker slowly. 'It seems foolish and if we did say anything about it it would give the boys the laugh on us.'

'Just as you say,' responded Bowman.

Relations between Special Constable Baker and Special Constable Bowman were strained on the morrow. But they walked along side by side to their respective posts. Baker stopped at his end of The Trap; Bowman didn't even look around.

'You'd better keep your eyes open tonight, Jim,' Baker called

as a last word.

'I had 'em open last night,' was the disgusted retort.

Seven, eight, nine o'clock passed. Two or three cars had gone through The Trap at moderate speed and one had been warned by Baker. At a few minutes past nine he was staring down the road which led into The Trap when he saw something that brought him quickly to his feet. It was a pair of dazzling white eyes, far away. He recognized them— the mysterious car of the night before.

'I'll get it this time,' he muttered grimly, between closed teeth.

Then when the onrushing car was a full two hundred yards away Baker planted himself in the middle of the road and began to swing the lantern. The auto seemed, if anything, to be traveling even faster than on the previous night. At a hundred yards Baker began to shout. Still the car didn't lessen speed, merely rushed on. Again at the psychological instant Baker jumped. The auto whisked by as the chauffeur gave it a dextrous twist to prevent running down the Special Constable.

Safely out of its way Baker turned and stared after it, trying to read the number. He could see there was a number because a white board swung from the tail axle, but he could not make out the figures. Dust and a swaying car conspired to defeat him. But he did see that there were four persons in the car dimly silhouetted against the light reflected from the road. It was useless, of course, to conjecture as to sex for even as he looked, the fast receding car swerved around the turn and was lost to sight.

Again he rushed to the telephone; Bowman responded promptly.

'That car's gone in again,' Baker called. 'Ninety miles an hour. Look out!'

'I'm looking,' responded Bowman.

'Let me know what happens,' Baker shouted.

With the receiver to his ear he stood for ten or fifteen

minutes, then Bowman hallooed from the other end.

'Well?' Baker responded. 'Get 'em?'

'No car passed through and there's none in sight,' said Bowman.

'But it went in,' insisted Baker.

'Well it didn't come out here,' declared Bowman. 'Walk along the road till I meet you and look out for it.'

Then was repeated the search of the night before. When the two men met in the middle of The Trap their faces were blank—blank as the high stone walls which stared at them from each side.

'Nothing!' said Bowman.

'Nothing!' echoed Baker.

Special Constable Bowman perched his head on one side and scratched his grizzly chin.

'You're not trying to put up a job on me?' he inquired coldly. 'You did see a car?'

'I certainly did,' declared Baker, and a belligerent tone underlay his manner. 'I certainly saw it, Jim, and if it didn't come out your end, why— why—'

He paused and glanced quickly behind him. The action inspired a sudden similar caution on Bowman's part.

'Maybe— maybe—' said Bowman after a minute, 'maybe it's a— a spook auto?'

'Well it must be,' mused Baker. 'You know as well as I do that no car can get out of this trap except at the ends. That car came in here, it isn't here now and it didn't go out your end. Now where is it?'

Bowman stared at him a minute, picked up his lantern, shook his head solemnly and wandered along the road back to his post. On his way he glanced around quickly, apprehensively, three times - Baker did the same thing four times.

On the third night the phantom car appeared and disappeared precisely as it had done previously. Again Baker and Bowman met half way between posts and talked it over.

'I'll tell you what, Baker,' said Bowman in conclusion, 'maybe you're just imagining that you see a car. Maybe if I was at your end I couldn't see it.'

Special Constable Baker was distinctly hurt at the insinuation.

'All right, Jim,' he said at last, 'if you think that way about it we'll swap posts tomorrow night. We won't have to say anything about it when we report.'

'Now that's the talk,' exclaimed Bowman with an air approaching enthusiasm. 'I'll bet I don't see it.'

On the following night Special Constable Bowman made himself comfortable on Special Constable Baker's camp-stool. And he saw the phantom auto. It came upon him with a rush and a crackling chug of engine and then sped on leaving him nerveless. He called Baker over the wire and Baker watched half an hour for the phantom. It didn't appear.

Ultimately all things reach the newspapers. So with the story of the phantom auto. Hutchinson Hatch, reporter, smiled incredulously when his City Editor laid aside an inevitable cigar and tersely stated the known facts. The known facts in this instance were meager almost to the disappearing point. They consisted merely of a corroborated statement that an automobile, solid and tangible enough to all appearances, rushed into The Trap each night and totally disappeared.

But there was enough of the bizarre about it to pique the curiosity, to make one wonder, so Hatch journeyed down to Yarborough County, an hour's ride from the city, met and talked to Baker and Bowman and then, in broad daylight strolled along The Trap twice. It was a leisurely, thorough investigation with the end in view of finding out how an automobile once inside might get out again without going out either end.

On the first trip through Hatch paid particular attention to the Thomas Q. Rogers side of the road. The wall, nine feet high, was an unbroken line of stone with not the slightest indication of a secret wagon-way through it anywhere. Secret wagon-way!

Hatch smiled at the phrase. But when he reached the other end— Bowman's end— of The Trap he was perfectly convinced of one thing— that no automobile had left the hard, macadamized road to go over, under or through the Thomas Q. Rogers wall. Returning, still leisurely, he paid strict attention to the John Phelps Stocker side, and when he reached the other end— Baker's end— he was convinced of another thing— that no automobile had left the road to go over, under or through the John Phelps Stocker wall. The only opening of any sort was a narrow footpath, not more than 16 inches wide.

Hatch saw no shrubbery along the road, nothing but a strip of scrupulously cared for grass, therefore the phantom auto could not be hidden any time, night or day. Hatch failed, too, to find any holes in the road so the automobile didn't go down through the earth. At this point he involuntarily glanced up at the blue sky above. Perhaps, he thought whimsically, the automobile was a strange sort of bird, or— or— and he stopped suddenly.

'By George!' he exclaimed. 'I wonder if—'

And the remainder of the afternoon he spent systematically making inquiries. He went from house to house, the Stocker house, the Rogers house, both of which were at the time unoccupied, then to cottage, cabin and hut in turn. But he didn't seem overlaid with information when he joined Special Constable Baker at his end of The Trap that evening about seven o'clock.

Together they rehearsed the strange points of the mystery as the shadows grew about them until finally the darkness was so dense that Baker's lantern was the only bright spot in sight. As the chill of the evening closed in a certain awed tone crept into their voices. Occasionally an auto bowled along and each time as it hove in sight Hatch glanced at Baker questioningly. And each time Baker shook his head. And each time, too, he called Bowman, in this manner accounting for every car that went into The Trap.

'It'll come all right,' said Baker after a long silence, 'and I'll know it the minute it rounds the curve coming toward us. I'd know its two lights in a thousand.'

They sat still and smoked. After awhile two dazzling white lights burst into view far down the road and Baker, in excitement, dropped his pipe.

That's her,' he declared. 'Look at her coming!'

And Hatch did look at her coming. The speed of the mysterious car was such as to make one look. Like the eyes of a giant the two lights came on toward them, and Baker perfunctorily went through the motions of attempting to stop it. The car fairly whizzed past them and the rush of air which tugged at their coats was convincing enough proof of its solidity. Hatch strained his eyes to read the number as the auto flashed past. But it was hopeless. The tail of the car was lost in an eddying whirl of dust.

'She certainly does travel,' commented Baker, softly.

'She does,' Hatch assented.

Then, for the benefit of the newspaper man, Baker called Bowman on the wire.

'Car's coming again,' he shouted. 'Look out and let me know!'

Bowman, at his end, waited twenty minutes, then made the usual report - the car had not passed. Hutchinson Hatch was a calm, cold, dispassionate young man but now a queer, creepy sensation stole along his spinal column. He lighted a cigarette and pulled himself together with a jerk.

'There's one way to find out where it goes,' he declared at last, emphatically, 'and that's to place a man in the middle just beyond the bend of The Trap and let him wait and see. If the car goes up, down, or evaporates he'll see and can tell us.'

Baker looked at him curiously.

'I'd hate to be the man in the middle,' he declared. There was something of uneasiness in his manner.

'I rather think I would, too,' responded Hatch.

On the following evening, consequent upon the appearance

of the story of the phantom auto in Hatch's paper, there were twelve other reporters on hand. Most of them were openly, flagrantly sceptical; they even insinuated that no one had seen an auto. Hatch smiled wisely.

'Wait!' he advised with deep conviction.

So when the darkness fell that evening the newspaper men of a great city had entered into a conspiracy to capture the phantom auto. Thirteen of them, making a total of fifteen men with Baker and Bowman, were on hand and they agreed to a suggestion for all to take positions along the road of The Trap from Baker's post to Bowman's, watch for the auto, see what happened to it and compare notes afterwards. So they scattered themselves along a few hundred feet apart and waited. That night the phantom auto didn't appear at all and twelve reporters jeered at Hutchinson Hatch and told him to light his pipe with the story. And next night when Hatch and Baker and Bowman alone were watching the phantom auto reappeared.

LIKE A CHILD with a troublesome problem, Hatch took the entire matter and laid it before Professor Augustus S. F. X. Van Dusen, the master brain. The Thinking Machine, with squint eyes turned steadily upward and long, slender fingers pressed tip to tip, listened to the end.

'Now I know of course that automobiles don't fly,' Hatch burst out savagely in conclusion, 'and if this one doesn't fly, there is no earthly way for it to get out of The Trap, as they call it. I went over the thing carefully— I even went so far as to examine the ground and the tops of the walls to see if a runway had been let down for the auto to go over.'

The Thinking Machine squinted at him inquiringly.

'Are you sure you saw an automobile?' he demanded irritably.

'Certainly I saw it,' blurted the reporter. 'I not only saw it— I smelled it. Just to convince myself that it was real I tossed my cane in front of the thing and it smashed it to toothpicks.'

'Perhaps, then, if everything is as you say, the auto actually does fly,' remarked the scientist.

The reporter stared into the calm, inscrutable face of The Thinking Machine, fearing first that he had not heard aright. Then he concluded that he had.

'You mean,' he inquired eagerly, 'that the phantom may be an auto- aeroplane affair, and that it actually does fly?'

It's not at all impossible,' commented the scientist.

'I had an idea something like that myself,' Hatch explained, 'and questioned every soul within a mile or so but I didn't get anything.'

The perfect stretch of road there might be the very place for some daring experimenter to get up sufficient speed to soar a short distance in a light machine,' continued the scientist.

'Light machine?' Hatch repeated. 'Did I tell you that this car had four people in it?'

'Four people!' exclaimed the scientist. 'Dear me! Dear me! That makes it very different. Of course four people would be too great a lift for an—'

'For ten minutes he sat silent, and tiny, cobwebby lines appeared in his dome-like brow. Then he arose and passed into the adjoining room. After a moment Hatch heard the telephone bell jingle. Five minutes later The Thinking Machine appeared, and scowled upon him unpleasantly.

'I suppose what you really want to learn is if the car is a— a material one and to whom it belongs?' he queried.

'That's it,' agreed the reporter, 'and of course, why it does what it does, and how it gets out of The Trap.'

'Do you happen to know a fast, long-distance bicycle rider?' demanded the scientist abruptly.

'A dozen of them,' replied the reporter promptly. 'I think I see the idea, but—'

'You haven't the faintest inkling of the idea,' declared The Thinking Machine positively. 'If you can arrange with a fast rider who can go a distance— it might be thirty, forty, fifty miles— we

may end this little affair without difficulty.'

Under these circumstances Professor Augustus S. F. X. Van Dusen, Ph.D., LL.D., F.R.S., M.D., etc., etc., scientist and logician, met the famous Jimmie Thalhauer, the world's champion long distance bicyclist. He held every record from five miles up to and including six hours, had twice won the six-day race and was, altogether, a master in his field. He came in chewing a toothpick. There were introductions.

'You ride the bicycle?' inquired the crusty little scientist.

'Well, some,' confessed the champion modestly with a wink at Hatch.

'Can you keep up with an automobile for a distance of, say, thirty or forty miles?'

'I can keep up with anything that ain't got wings,' was the response.

'Well, to tell you the truth,' volunteered The Thinking Machine, 'there is a growing belief that this particular automobile has wings. However, if you can keep up with it-'

'Ah, quit your kiddin',' said the champion, easily. 'I can ride rings around anything on wheels. I'll start behind it and beat it where it's going.'

The Thinking Machine examined the champion, Jimmie Thalhauer, as a curiosity. In the seclusion of his laboratory he had never had an opportunity of meeting just such another worldly young person.

'How fast can you ride, Mr Thalhauer?' he asked at last.

'I'm ashamed to tell you,' confided the champion in a hushed voice. 'I can ride so fast that I scare myself.' He paused a moment. 'But it seems to me,' he said, 'if there's thirty or forty miles to do I ought to do it on a motorcycle.'

'Now that's just the point,' explained The Thinking Machine. 'A motorcycle makes noise and if it could have been used we would have hired a fast automobile. This proposition briefly is: I want you to ride without lights behind an automobile which may also run without lights and find out where it goes. No occupant

of the car must suspect that it is followed.'

'Without lights?' repeated the champion. 'Gee! Rubber shoe, eh?'

The Thinking Machine looked his bewilderment.

'Yes, that's it,' Hatch answered for him.

'I guess it's good for a four column head? Hunh?' inquired the champion. 'Special pictures posed by the champion? Hunh?'

'Yes,' Hatch replied.

'"Tracked on a Bicycle" sounds good to me. Hunh?'

Hatch nodded.

So arrangements were concluded and then and there The Thinking Machine gave definite and conclusive instructions to the champion. While these apparently bore broadly on the problem in hand they conveyed absolutely no inkling of his plan to the reporter. At the end the champion arose to go.

'You're a most extraordinary young man, Mr Thalauer,' commented The Thinking Machine, not without admiration for the sturdy, powerful figure.

And as Hatch accompanied the champion out the door and down the steps Jimmie smiled with easy grace.

'Nutty old guy, ain't he? Hunh?'

Night! Utter blackness, relieved only by a white, ribbon-like road which winds away mistily under a starless sky. Shadowy hedges line either side and occasionally a tree thrusts itself upward out of the sombreneess. The murmur of human voices in the shadows, then the crackling-chug of an engine and an automobile moves slowly, without lights, into the road. There is the sudden clatter of an engine at high speed and the car rushes away.

From the hedge comes the faint rustle of leaves as of wind stirring, then a figure moves impalpably. A moment and it becomes a separate entity; a quick movement and the creak of a leather bicycle saddle. Silently the single figure, bent low over the handlebars, moves after the car with ever increasing momentum.

Then a long, desperate race. For mile after mile, mile after mile the auto goes on. The silent cyclist has crept up almost to the rear axle and hangs there doggedly as a racer to his pace. On and on they rush together through the darkness, the chauffeur moving with a perfect knowledge of his road, the single rider behind clinging on grimly with set teeth. The powerful, piston-like legs move up and down to the beat of the engine.

At last, with dust-dry throat and stinging, aching eyes the cyclist feels the pace slacken and instantly he drops back out of sight. It is only by sound that he follows now. The car stops; the cyclist is lost in the shadows.

For two or three hours the auto stands deserted and silent. At last the voices are heard again, the car stirs, moves away and the cyclist drops in behind. Another race which leads off in another direction. Finally, from a knoll, the lights of a city are seen. Ten minutes elapse, the auto stops, the headlights flare up and more leisurely it proceeds on its way.

On the following evening The Thinking Machine and Hutchinson Hatch called upon Fielding Stanwood, President of the Fordyce National Bank. Mr Stanwood looked at them with interrogative eyes.

'We called to inform you, Mr Stanwood,' explained The Thinking Machine, 'that a box of securities, probably United States bonds, is missing from your bank.'

'What?' exclaimed Mr Stanwood, and his face paled. 'Robbery?'

'I only know the bonds were taken out of the vault tonight by Joseph

Marsh, your assistant cashier,' said the scientist, 'and that he, together with three other men, left the bank with the box and are now at a place I can name.'

Mr Stanwood was staring at him in amazement.

'You know where they are?' he demanded.

'I said I did,' replied the scientist, shortly.

'Then we must inform the police at once, and-'

'I don't know that there has been an actual crime,' interrupted the scientist. 'I do know that every night for a week these bonds have been taken out through the connivance of your watchman and in each instance have been returned, intact, before morning. They will be returned tonight. Therefore I would advise, if you act, not to do so until the four men return with the bonds.'

It was a singular party which met in the private office of President Stanwood at the bank just after midnight. Marsh and three companions, formally under arrest, were present as were President Stanwood, The Thinking Machine and Hatch, besides detectives. Marsh had the bonds under his arms when he was taken. He talked freely when questioned.

'I will admit,' he said without hesitating, 'that I have acted beyond my rights in removing the bonds from the vault here, but there is no ground for prosecution. I am a responsible officer of this bank and have violated no trust. Nothing is missing, nothing is stolen. Every bond that went out of the bank is here.'

'But why— why did you take the bonds?' demanded Mr Stanwood.

Marsh shrugged his shoulders.

'It's what has been called a get-rich-quick scheme,' said The Thinking Machine. 'Mr Hatch and I made some investigations today. Mr Marsh and these other three are interested in a business venture which is ethically dishonest but which is within the law. They have sought backing for the scheme amounting to about a million dollars. Those four or five men of means with whom they have discussed the matter have called each night for a week at Marsh's country place. It was necessary to make them believe that there was already a million or so in the scheme, so these bonds were borrowed and represented to be owned by themselves. They were taken to and fro between the bank and his home in a kind of an automobile. This is really what happened, based on knowledge which Mr Hatch has gathered and what I myself developed by the use of a little logic.'

And his statement of the affair proved to be correct. Marsh and the others admitted the statement to be true. It was while The Thinking Machine was homeward bound that he explained the phantom auto affair to Hatch.

'The phantom auto, as you call it,' he said, 'is the vehicle in which the bonds were moved about. The phantom idea came merely by chance. On the night the vehicle was first noticed it was rushing along— we'll say to reach Marsh's house in time for an appointment. A road map will show you that the most direct line from the bank to Marsh's was through The Trap. If an automobile should go half way through there, then out across the Stocker estate to the other road, distance would be lessened by a good five miles. This saving at first was of course valuable, so the car in which they rushed into The Trap was merely taken across the Stocker estate to the road in front.'

'But how?' demanded Hatch. 'There's no road there.'

'I learned by phone from Mr Stocker that there is a narrow walk from a very narrow foot-gate in Stocker's wall on The Trap leading through the grounds to the other road. The phantom auto wasn't really an auto at all— it was merely two motor cycles arranged with seats and a steering apparatus. The French Army has been experimenting with them. The motor cycles are, of course, separate machines and as such it was easy to trundle them through a narrow gate and across to the other road. The seats are light; they can be carried under the arm.'

'Oh!' exclaimed Hatch suddenly, then after a minute: 'But what did Jimmie Thalauer do for you?'

He waited in the road at the other end of the foot-path from The Trap,' the scientist explained. 'When the auto was brought through and put together he followed it to Marsh's home and from there to the bank. The rest of it you and I worked out today. It's merely logic, Mr Hatch, logic.'

There was a pause.

'That Mr Thalauer is really a marvelous young man, Mr Hatch, don't you think?'

48: Problem of the Missing Necklace

MR. BRADLEE Cunnyngnam Leighton was clever. His most ardent enemies admitted that. Scotland Yard, for instance, not only admitted it but insisted on it. It wasn't any half hearted insistence, either, for in the words of Herbert Conway, one of the Yard's chief operators, he was smooth— "so smooth that he made ice feel like sandpaper." Whether or not Mr. Leighton was aware of this delicate compliment does not appear. It was perfectly possible that he was, although he had never mentioned it. He was a well bred gentleman and was aware of many things that he never mentioned.

In his person Mr. Leighton had the distinguished honour of closely resembling the immaculate villain of melodrama. In his mental attainments, however, Scotland Yard gave him credit for being a genius— far beyond the cigarette smoking mummer of crime who is always transparent and is inevitably caught. Mr. Leighton had never been caught. Perhaps that was why Scotland Yard insisted on his cleverness and was prepared to argue the point.

Mr. Leighton went everywhere. At those functions where the highest in the social world met, there was Mr. Leighton. He was on every matron's selected list of guests, a charming addition to any gathering. Scotland Yard knew this. Of course it may have been only the merest chance that he was always present at those functions where valuable jewels had been "lost" or "misaid." Yet Scotland Yard did not regard it as chance. That it did not was another compliment to Mr. Leighton.

From deep down in its innermost conscience Scotland Yard looked up to Mr. Leighton as the master mind, if not the actual vital instrument, in a long series of baffling jewel robberies. There was a finesse and delicacy— not to mention regularity— about these robberies that annoyed Scotland Yard. Yet believing

all this Scotland Yard had never been so indiscreet as to mention the matter to Mr. Leighton. As a matter of fact Scotland Yard had never seen its way clear to mentioning it to anyone.

Conway had some ideas of his own about Mr. Leighton whom he exalted to a position that would have surprised if not flattered him. Conway perhaps, more nearly expressed the opinion of Scotland Yard in a few brief remarks than I could at greater length.

"He's a crook and the cleverest in the world," he said of Mr. Leighton, almost enthusiastically. "He got the Hemingway jewels, the Cheltenham bracelet and the Quez shiners all right. I *know* he got them. But that doesn't do any good— merely knowing it. I can't put a finger on him because he's too blooming smooth. I think I've got him and then— I haven't."

This was before the Varron necklace affair. When that remarkable episode came to be known to Scotland Yard Conway's admiration for Mr. Leighton increased immeasurably. He *knew* that Leighton was the responsible one— he knew it in his own head and heart— but that was all. He gnawed his scrubby moustache fiercely and set to work to prove it, feeling beforehand that it was a vain task.

The absolute simplicity of the thing—and in this it was like the others—was its most puzzling feature. Lady Varron had tendered a reception to the United States Ambassador at her London house. She had gathered about her a most distinguished company. There were representatives of England, France and Russia; there were some of the most beautiful women of the continent; there were two American Duchesses; there were a chosen few of the American colony— and Mr. Leighton. It may be well to repeat that he went everywhere.

Lady Varron on this occasion wore the famous Varron necklace. Its intrinsic value was said to be £40,000; associations made it priceless. She was dancing with the American Ambassador when she slipped on the smooth floor and fell, dragging him down with her. It was an undignified, unromantic

thing, but it happened. Mr. Leighton chanced to be one of those nearest and rushed to her assistance. In an instant Lady Varron and the Ambassador were the centre of a little group. It was Mr. Leighton who lifted Lady Varron to her feet.

"It's nothing," she assured him, smiling uncertainly. "I was a little awkward, that's all."

Mr. Leighton turned to assist the Ambassador but found him standing again and puffing inordinately, then turned back to Lady Varron.

"You dropped your necklace," he remarked blandly.

"My necklace?"

Lady Varron's white hand flew to her bare throat, and she paled a little as Mr. Leighton and others of the group stood back to look for the jewel. It was not to be seen. Lady Varron controlled herself admirably.

"It must have fallen somewhere," she said finally.

"Are you sure you had it on?" asked another guest solicitously.

"Oh, yes," she replied positively, "but I may have dropped it somewhere else."

"I noticed it just before you— we— fell," said the Ambassador. "It must be here."

But it wasn't. In that respect— that is visible non-existence— it resembled the Cheltenham bracelet. Mr. Leighton had, on that occasion, strolled out on the lawn at night with the Honourable Miss Cheltenham and she had dropped the bracelet. That was all. It was never found.

In this Varron affair it would be useless to go into details of what immediately followed the loss of the necklace. It is sufficient to say that it was not found; that men and women stared at each other in bewildered embarrassment and mutual suspicion, and that finally Mr. Leighton, who still stood beside Lady Varron, intimated courteously, tactfully, that a personal search of her guests would not be amiss. He did not say it in so many words but the others understood.

Mr. Leighton was seconded heartily by the American Ambassador, a Democratic individual with honest ideas which were foremost when a question of personal integrity was involved. But the search was not made and the reception proceeded. Lady Varron bore her loss marvellously well.

"She's a brick," was the audible compliment of one of the American Duchesses whose father owned \$20,000,000 worth of soap somewhere in vague America. "I'd have had a fit if I'd lost a necklace like that."

It was not until next day that Scotland Yard was notified of Lady Varron's loss.

"Leighton there?" was Conway's question.

"Yes."

"Then he got it," Conway asserted positively. "I'll get him this time or know why."

Yet at the end of a month he neither had him, nor did he know why. He had intercepted messengers, he had opened letters, telegrams, cable dispatches; he had questioned servants; he had taken advantage of the absence of both Mr. Leighton and his valet to search his exquisite apartments. He had done all these things and more— all that a severely conscientious man of his profession could do, and had gnawed his scrubby moustache down to a disreputable ragged line. But of the necklace there was no clue, no trace, nothing.

Then Conway heard that Mr. Leighton was going to the United States for a few months.

"To take the necklace and dispose of it," he declared out of the vexation of his own heart. "If he ever gets aboard ship with I've got him— either I've got him or the United States customs officials will have him."

Conway could not bring himself to believe that Mr. Leighton, with all his cleverness, would dare try to dispose of the pearls in England and he flattered himself that Leighton could not have sent them elsewhere—too close a watch had been kept.

It transpired naturally that when the Boston bound liner

Romanic sailed from Liverpool four days later not only was Mr. Leighton aboard but Conway was there. He knew Leighton, but was secure in the thought that Leighton did not know him.

On the second day out he was disabused on this point. He was beginning to think that it might not be a bad idea to know Leighton casually so when he noticed that immaculate gentleman alone, leaning on the rail, smoking, he sauntered up and joined him in contemplation of the infinite ocean.

"Beautiful weather," Conway remarked after a long time.

"Yes," replied Leighton as he glanced around and smiled. "I should think you Scotland Yard men would enjoy a junket like this?"

Conway didn't do any such foolish thing as start or show astonishment, whatever he might have felt. Instead he smiled pleasantly.

"I've been working pretty hard on that Varron affair," he said frankly. "And now I'm taking a little vacation."

"Oh, that thing at Lady Varron's?" inquired Leighton lazily. "Indeed? I happened to be the one to notice that the necklace was gone."

"Yes, I know it," responded Conway, grimly.

The conversation drifted to other things. Conway found Leighton an agreeable companion, and a democratic one. They smoked together, walked together and played shuffle-board together. That evening Leighton took a hand at "bridge" in the smoking room. For hours Conway stared at the phosphorescent points in the sinister green waters, and smoked.

"If he did it," he remarked at last, "he's the cleverest scoundrel on earth, and if he did not I'm the biggest fool."

Six bells— eleven o'clock struck. The deck was deserted. Conway stumbled along through the dark toward the smoking room. Inside he saw Leighton still at play. As he paused at the open door he heard Leighton's voice.

"I'll play until two o'clock, not later," it said.

Conway made up his mind instantly. He turned, retraced his

steps along the deck to Leighton's room where he stopped. He knew Leighton had not burdened himself with a valet and thought he knew why, so without hesitation he drew out several keys and fumbled at the lock. It yielded at last and he stepped inside the state room, closing the door. His purpose was instantly apparent. It was to search.

Now Conway had his own ideas of just how a search should be conducted. First he took Leighton's wearing apparel and patted and pinched it inch by inch; he squeezed up neckties, unrolled handkerchiefs, examined shirts and crumpled up silken hosiery. Then he took the shoes— half a dozen pairs. He had been suspicious of shoes since he once found a dozen diamonds concealed in false heels. But these heels weren't false.

Next, still without haste or apparent disappointment, he turned his attention to the handbag, the suit case and the steamer trunk all of which he had emptied. Such things had been known to have false bottoms and secret compartments. These had none. He satisfied himself absolutely on this point by every method known to his art.

In due time his examination came down to the room itself. He unmade the bed and closely felt of and scrutinized the mattress, sheets, blankets, pillows, and coverlid. He took the three drawers from the dressing cabinet and looked behind them. He turned over several English newspapers and shook them one by one. He peered into the water pitcher and fumbled around the plumbing in the tiny bath room adjoining. He examined the carpet to see if anything had been hidden beneath it. Finally he climbed on a chair and from this elevated position looked for a crack or crevice where a necklace or unset pearls could be hidden.

"There are still three possibilities," he told himself at the end as he carefully restored the room to its previous condition. "He might have left them in a package in the ship's safe but that's improbable— too risky; he might have left them in a trunk in the hold, which is still more improbable; or he might have them on

his person. That is more than likely."

So Conway went out, extinguishing the light and locking the door behind him. He stepped into his own state room a moment and took a mouthful of whiskey which he spat out again. But it must have had some deep, potent effect for a few minutes later when he appeared in the smoking room he was in a lamentable state of intoxication and exhaled whiskey noticeably. His was a maudlin, thick-tongued condition. Leighton glanced up at him with well bred reproach.

It may have been only accident that Conway stumbled over Leighton's feet and noted that he wore flat-soled, loose slippers *without heels*, and also accident that he embraced him with exaggerated affection as he struggled to recover his equilibrium.

Be those things as they may Leighton excused himself good-naturedly from the bridge party and urged Conway to bed. Conway would only agree on condition that Leighton would assist him. Leighton consented cheerfully and they left the smoking room together, Conway clinging to him as the vine to the oak.

Half way down the deck Conway stumbled and fell despite the friendly supporting arm, and in his effort to save himself his hands slid all the way down Leighton's shapely legs. Then he was deposited in his state room and Leighton returned to his cards smiling.

"And he hasn't got them on him," declared Conway enigmatically to the bare walls. He was not intoxicated now.

It was an easy matter next day for him to learn that Leighton had left nothing in the ship's safe and that his four trunks in the hold were inaccessible, being buried under hundreds of others. Whereupon Conway sat down to wait and learn what new and original ideas of searching Uncle Sam's Customs officers had invented.

At last came a morning when the wireless telegraph operator aboard picked up a signal from shore and announced that the Romanic was less than a hundred miles from Boston

light. Later Conway found Leighton leaning on the rail, smoking and gazing shoreward.

It was three hours or so after that that several passengers noticed a motor boat coming toward them. Leighton watched it with idle interest. Finally it circled widely and it became apparent that it was coming along-side the now slow moving liner. When it was only a hundred feet off and the liner was barely creeping along, Leighton grew suddenly interested.

"By Jove," he exclaimed, then shouted: "Hello, Harry!"

"Hello, Leighton," came an answering shout. "Heard you were aboard and came out to meet you."

There was a rapid fire of uninteresting pleasantries as the motor boat slid in under the Romanic's lee and bobbed up and down in her wash. The man aboard stood up with a package of newspapers in his hand.

"Here are some American papers for you," he called.

He flung the bundle and Leighton caught it, left the rail and passed into his state room. He returned after a moment with a bundle of European papers—those Conway had previously seen.

"Catch," he called. "There's something in these that will interest you."

The man in the small boat caught the package and dropped it carelessly on a seat.

Then, suddenly, Conway awoke.

"There goes the necklace," he told himself with a start. A quick grasping movement of his hands attracted Leighton's attention and he smiled inscrutably, daringly into the blazing eyes of the Scotland Yard man. The motor boat with a parting shot of "I'll meet you on the wharf" sped away.

Thoughts began to flow rapidly through Conway's fertile brain. Five minutes later he burst in on the wireless operator and sent a long dispatch to officials ashore. Then from the bow rail he watched the motor boat speeding away in the direction of Boston. It drew off about two miles and remained relatively in that position for nearly all the forty miles into Boston Harbour. It

spoke no other craft, passed near none in fact while in Conway's sight, which was until it disappeared in Boston Harbour.

An hour later the Romanic was warped in and tied up. Conway was the first man off. He went straight to a man who seemed to be waiting for him.

"Did you search the motor boat?" he demanded.

"Yes," was the reply. "We nearly tore it to pieces, even took it out of the water. We also searched the man on her, Harry Cheshire. You must have been mistaken."

"Are you sure she spoke no one or got rid of the jewels to another vessel?"

"She didn't go near another vessel," was the reply. "I met her at the Harbour mouth and came in with her."

For an instant Conway's face showed disappointment, then came animation again. He was just beginning to get really interested in the affair.

"Do you know the Customs officer in charge?" he asked.

"Yes."

"Introduce me."

There was an introduction and the three men spoke aside for several minutes. The result of it was that when Leighton sauntered down the gang plank he was invited into a private office. He went smilingly and submitted to a search of his person without anger or the slightest trace of uneasiness. As he came out Conway was standing at the door.

"Are you satisfied?" Leighton asked.

"No," blazed Conway, savagely.

"What? Not after searching me twice and my state room once?"

Conway didn't answer. He didn't dare to at the moment, but he stood by when Leighton's four trunks were taken from the hold, and he saw that they were searched with the same minute care that he had given to the state room. At the fruitless end of it he sat down on one of the trunks and stared at Leighton in a sort of admiration.

Leighton stared back for a moment, smiled, nodded pleasantly and strolled up the dock chatting carelessly with Harry Cheshire. Conway made no attempt to follow them. It wasn't worth while— nothing was worth while any more.

"But he *did* get them and he's got them now," he told himself savagely, "or he has disposed of them in some way that I can't find."

THE THINKING Machine did not seem to regard the problem as at all difficult when it came to his attention a couple of days later. Hutchinson Hatch, reporter, brought it to him. Hatch had some good friends in the Customs Office where Conway had told his story. He learned from them that that office had refused to have anything to do with the case insisting that the Scotland Yard man must be mistaken.

Crushed in spirit, mangled in reputation and taunted by Leighton's final words Conway took a desolate view of life. Momentarily he lost even that bull-dog tenacity which had never before faltered—lost it all except in so far as he still believed that Leighton was *the* man. It was about this time Hatch met him. Would he talk? He was burning to talk; caution was a senseless thing anyway. Then Hatch took him gently by the hand and led him to The Thinking Machine.

Conway unburdened himself at length and with vitriolic emphasis. For an hour he went on while the scientist leaned back in his chair with his great yellow head pillowed on a cushion and squinted aggressively at the ceiling. At the end of the hour The Thinking Machine knew as much of the Varron problem as Conway knew and knew as much of Leighton as any man knew, except Leighton.

"How many stones were in the necklace," the scientist asked.

"One hundred and seventy-two," replied Conway.

"Was the man in the motor boat— Harry Cheshire you call him— an Englishman?"

“Yes, in speech, manner and appearance.”

For a long time The Thinking Machine twiddled his fingers while Conway and the reporter sat staring at him impatiently. Hatch knew, from the past, that something tangible, something that led somewhere, would come from that wonderful analytical brain; Conway not knowing, was only hopefully curious. But like most men of his profession he wanted action; sitting down and thinking didn't seem to get anywhere.

“You see, Mr. Conway,” said the scientist at last, “you haven't proven anything. Your investigations, as a matter of fact, indicate that Leighton did *not* take the pearls, therefore did not bring them with him. There is only one thing that indicates that he might have. That is the throwing of the newspapers into the motor boat. That one act seems to have been a senseless one, unless——”

“Unless the pearls were concealed in the bundle,” interrupted the Scotland Yard man.

“Or unless he was amusing himself at your expense and is perfectly innocent,” added The Thinking Machine. “It is perfectly possible that if he were an innocent man and discovered that you were on his track that he has merely made a fool of you. If we take any other view of it we must base it on an assumption which has no established fact to support it. We will have to dispose of every other person who *might* have stolen the necklace and pin it down to Leighton. Further, we will have to assume out of hand that he brought the jewels to this country.”

The Scotland Yard man was getting interested.

“That is not good logic, yet when we assume all this for our present purposes the problem is a simple one. And by assuming it we prove that your search of the state room was not thorough. Did you, for instance, happen to look on the *under* side of the slats in the berth? Do you *know* that the necklace, or its unset pearls, did not hang down in the drain pipe from the water bowl?”

Conway snapped his fingers in annoyance. These were two

things he had not done.

"There are other possibilities of course," resumed The Thinking Machine, "therefore the search for the necklace was useless. Now we must take for granted that, if they came to this country at all, they came in one of those places and you overlooked them. Obviously Mr. Leighton would not have left them in the trunks in the hold. Therefore we assume further that he hid them in his state room and threw them into the motor boat.

"In that event they were in the motor boat when it left the Romanic and we must believe they were not in it when it docked. Yet the motor boat neither spoke nor approached any other vessel. The jewels were *not* thrown into the water. The man Cheshire could not have swallowed one hundred and seventy-two pearls— or any great part of them— therefore, what have we?"

"Nothing," responded Conway promptly. "That's what's the matter. I've had to give it all up."

"Instead of nothing we have the answer," replied The Thinking Machine tartly. "Let's see. Perhaps I can give you the name and address of the man who has the jewels now, assuming of course that Leighton brought them."

He arose suddenly and passed into the adjoining room. Conway turned and stared at Hatch inquiringly with a queer expression on his face.

"Is he anything of a joker?" he asked.

"No, but he's a good deal of a wonder," replied Hatch.

"Do you mean to say that I have been working on this thing for months and months without learning anything about it and all he's got to do is to go in there and get the name and address of the man who has the necklace?" demanded Conway in bewilderment.

"If he went into that room and said he'd bring back the Pacific Ocean in a tea cup I'd believe him," said the reporter. "I *know* him."

They were interrupted by the tinkling of the telephone bell in the next room, then for a long time the subdued hum of the scientist's irritable voice as he talked over the 'phone. It was twenty-five or thirty minutes before he appeared in the door again. He paused there and scribbled something on a card which he handed to Hatch. The reporter read this: "Henry C. H. Manderling, Scituate, Mass."

"There is the name and address of the man who probably has the jewels now," said The Thinking Machine quite as a matter of fact. "Mr. Hatch, you accompany Mr. Conway, let him see the surroundings and act as his judgment dictates. You must search this man's house. I don't think you'll have much trouble finding them because they cannot foresee their danger. The pearls will be unset and you will find them possibly in small oil-silk bags, no larger than your little finger. When you find them take steps to apprehend both this man and Leighton. Call Detective Mallory when you get them and bring them here."

"But— but—" stammered Conway.

"Come on," commanded Hatch.

And Conway went.

THE SLEEPY little old town of Scituate sprawls along two or three miles of Massachusetts coast, facing the sea boldly in a series of cliffs which rise up and sink away with the utmost suddenness. The town was settled two or three hundred years ago and nothing has ever happened there since. It was here, atop one of the cliffs, that Henry C. H. Manderling had lived alone for two or three months. He had gone there in the Spring with other city folks who dreamed their Summers away, and occupied a queer little shack through which the salt breezes wandered at will. A tiny barn was attached to the house.

Hutchinson Hatch and the Scotland Yard man found the house without difficulty and entered it without hesitation. There was no one at hand to stop them, or to interfere with the search they made. The simple lock on the door was no obstacle. In less

than half an hour the skilful hands of the Scotland Yard man had turned out a score or more small oil-silk bags, no larger than his little finger. He ripped one open and six pearls dropped into his hand.

"They're the Varron pearls all right," he exclaimed triumphantly after an examination. He dropped them all into his pocket.

"Sh-h-h-h!" warned Hatch suddenly.

He had heard a step at the door, then two voices as some one inserted a key in the lock. After a moment the door opened and crouching back in the shadow they heard two men enter. It was just at that psychological moment that Conway stepped out and faced them.

"I want you, Leighton," he said calmly.

Hatch could not see beyond the Scotland Yard man but he heard a shot and a bullet whistled uncomfortably close to his head. Conway leaped forward; Hatch saw his arm swing and one of the men fell. Then came another shot. Conway staggered a little, took another step forward and again swung his great right arm. There was a scurrying of feet, the clatter of a revolver on the floor and the front door slammed.

"Tie up that chap there," commanded Conway.

He opened the door and Hatch heard him run along the veranda and leap off. He turned his attention to the senseless man on the floor. It was Harry Cheshire. Hatch bound him hand and foot where he lay and ran out.

Conway was racing down the cliff to where a motor boat lay. Hatch saw a man climb into the boat and an instant later it shot out into the water. Conway ran on to where it had been; it was now fifty yards out.

"Not *this* time, Mr. Conway," came Leighton's voice as the boat sped on.

The Scotland Yard man stared after it a minute or more then returned to Hatch. The reporter saw that he was pale, very pale.

"Did you bind him?" Conway asked.

"Yes," Hatch responded. "Are you wounded?"

"Sure," replied the Scotland Yard man. "He got me in the left arm. I never knew him to carry a revolver before. It's lucky those two shots were all he had."

THE THINKING Machine put the finishing touches on the binding of Conway's wound— it was trivial— then turned to his other visitors. These were Harry Cheshire, or Manderling, and Detective Mallory to whom he had been delivered a prisoner on the arrival of Hatch and Conway in Boston. A general alarm had been sent out for Leighton.

Conway apparently didn't care anything about the wound but he had a frank curiosity as to just what The Thinking Machine had done and how those things which had happened had been brought to pass.

"It was all ridiculously simple," began the scientist at last in explanation. "It came down to this: How could one hundred and seventy-two pearls be transferred from a boat forty miles at sea to a safe place ashore? The motor boat did not speak or approach any other vessel; obviously one could not *throw* them ashore and I have never heard of such a thing as a trained fish which might have brought them in. Now what are the only other ways they *could* have reached shore with comparative safety?"

He looked from one to another inquiringly. Each in turn shook his head. Manderling, or Cheshire, was silent.

"There are only two possible answers," said the scientist at last. "One, a submarine boat, which is improbable, and the other birds— homing pigeons."

"By Jove!" exclaimed Conway as he stared at Manderling. "And I did notice dozens of pigeons about the place at Scituate."

"The jewels *were* on the ship as you suspected," resumed the scientist, "unset and probably suspended in a long oil-silk bag in the drain pipe I mentioned. They *were* thrown into the motor boat, wrapped in the newspapers. Two miles away from the *Romanic* they were fastened to homing pigeons and one by

one the pigeons were released. You, Mr. Conway, could see the boat clearly at that distance but you could not possibly see a bird rise from it. The birds went to their home, Mr. Manderling's place at Scituate. Homing pigeons are generally kept in automatically closing compartments and each pigeon was locked in as it arrived. Mr. Manderling here and Mr. Leighton removed the pearls at their leisure.

"Of course with homing pigeons as a clue we could get somewhere," The Thinking Machine went on after a moment. "There are numerous homing pigeon associations and fanciers and it was possible that one of these would know an Englishman who had, say, twenty-five or fifty birds, and presumably lived somewhere near Boston. One *did* know. He gave me the name of Henry C. H. Manderling. Harry is a corruption of Henry; and Henry C? Henry Cheshire, or Harry Cheshire—the name Mr. Manderling gave when he was searched at the wharf."

"Can you explain how Leighton was able to get the necklace in the first place?" asked Conway curiously.

"Just as he got the other things," replied The Thinking Machine, "by boldness and cleverness. Suppose, when Lady Varron fell, Leighton had had a stout elastic fastened high up at the shoulder, say, inside his coat sleeve and the end of this elastic had a clamp of some sort, and was drawn down until the elastic was taut, and fastened to his cuff? Remember that this man was always waiting for an opportunity, and was always prepared to take advantage of it. Of course he did not plan the thing as it happened.

"Say that the necklace dropped off as he leaned over to help Lady Varron. In the momentary excitement he could, under their very noses, have fastened the clamp to the necklace. Instantly the jewels would have disappeared up his sleeve and he could have submitted to any sort of perfunctory search of his pockets as he suggested."

"That's a trick professional gamblers have to get rid of cards," remarked Detective Mallory.

“Oh, it isn’t new then?” asked The Thinking Machine. “Immediately he left the ball-room he hid this necklace as he had hidden other jewels, and before you knew of the theft, wrote and mailed full directions to Mr. Manderling here what to do. You did not intercept any letters, of course, until after you knew of this theft. Leighton had perhaps had other dealings with Mr. Manderling in other parts of the world, when he was not so closely watched as in this particular instance. I daresay, however, he had them all planned carefully for fear the very thing that did happen in this case would happen.”

Half an hour later Conway shook hands with The Thinking Machine, thanked him heartily and the little party dispersed.

“I had given it up,” Conway confessed as he was going out.

“You see,” remarked The Thinking Machine, “gentlemen of your profession use too little common sense. Remember that two and two always make four—not *some* times but *all* the time.”

Leighton has not yet been caught. Manderling made a model prisoner.

49: Problem of the Stolen Bank Notes

THERE WAS no mystery whatever about the identity of the man who, alone and unaided, robbed the Thirteenth National Bank of \$109,437 in cash and \$1.29 in postage stamps. It was “Mort” Dolan, an expert safe-cracker albeit a young one, and he had made a clean sweep. Nor yet was there any mystery as to his whereabouts. He was safely in a cell at Police Headquarters, having been captured within less than twelve hours after the robbery was discovered.

Dolan had offered no resistance to the officers when he was cornered, and had attempted no denial when questioned by Detective Mallory. He knew he had been caught fairly and squarely and no argument was possible, so he confessed, with a

glow of pride at a job well done. It was four or five days after his arrest that the matter came to the attention of The Thinking Machine. Then the problem was—

But perhaps it were better to begin at the beginning.

DESPITE the fact that he was considerably less than thirty years old, “Mort” Dolan was a man for whom the police had a wholesome respect. He had a record, for he had started early. This robbery of the Thirteenth National was his “big” job and was to have been his last. With the proceeds he had intended to take his wife and quietly disappear beneath a full beard and an alias in some place far removed from former haunts. But the mutability of human events is a matter of proverb. While the robbery as a robbery was a thoroughly artistic piece of work and in full accordance with plans which had been worked out to the minutest details months before, he had made one mistake. This was leaving behind him in the bank the can in which the nitro-glycerine had been bought. Through this carelessness he had been traced.

Dolan and his wife occupied three poor rooms in a poor tenement house. From the moment the police got a description of the person who bought the explosive they were confident for they knew their man. Therefore four clever men were on watch about the poor tenement. Neither Dolan nor his wife was there then, but from the condition of things in the rooms the police believed that they intended to return so took up positions to watch.

Unsuspecting enough, for his one mistake in the robbery had not recurred to him, Dolan came along just about dusk and started up the five steps to the front door of the tenement. It just happened that he glanced back and saw a head drawn suddenly behind a projecting stoop. But the electric light glared strongly there and Dolan recognized Detective Downey, one of many men who revolved around Detective Mallory within a limited orbit. Dolan paused on the stoop a moment and rolled a

cigarette while he thought it over. Perhaps instead of entering it would be best to stroll on down the street, turn a corner and make a dash for it. But just at that moment he spied another head in the direction of contemplated flight. That was Detective Blanton.

Deeply thoughtful Dolan smoked half the cigarette and stared blankly in front of him. He knew of a back door opening on an alley. Perhaps the detectives had not thought to guard that! He tossed his cigarette away, entered the house with affected unconcern and closed the door. Running lightly through the long, unclean hall which extended the full length of the building he flung open the back door. He turned back instantly—just outside he had seen and recognized Detective Cunningham.

Then he had an inspiration! The roof! The building was four stories. He ran up the four flights lightly but rapidly and was half way up the short flight which led to the opening in the roof when he stopped. From above he caught the whiff of a bad cigar, then the measured tread of heavy boots. Another detective! With a sickening depression at his heart Dolan came softly down the stairs again, opened the door of his flat with a latch-key and entered.

Then and there he sat down to figure it all out. There seemed no escape for him. Every way out was blocked, and it was only a question of time before they would close in on him. He imagined now they were only waiting for his wife's return. He could fight for his freedom of course— even kill one, perhaps two, of the detectives who were waiting for him. But that would only mean his own death. If he tried to run for it past either of the detectives he would get a shot in the back. And besides, murder was repugnant to Dolan's artistic soul. It didn't do any good. But could he warn Isabel, his wife? He feared she would walk into the trap as he had done, and she had had no connection of any sort with the affair.

Then, from a fear that his wife would return, there swiftly came a fear that she would not. He suddenly remembered that

it was necessary for him to see her. The police could not connect her with the robbery in any way; they could only hold her for a time and then would be compelled to free her for her innocence of this particular crime was beyond question. And if he were taken before she returned she would be left penniless; and that was a thing which Dolan dreaded to contemplate. There was a spark of human tenderness in his heart and in prison it would be comforting to know that she was well cared for. If she would only come now he would tell her where the money—!

For ten minutes Dolan considered the question in all possible lights. A letter telling her where the money was? No. It would inevitably fall into the hands of the police. A cipher? She would never get it. How? How? How? Every moment he expected a clamour at the door which would mean that the police had come for him. They knew he was cornered. Whatever he did must be done quickly. Dolan took a long breath and started to roll another cigarette. With the thin white paper held in his left hand and tobacco bag raised in the other he had an inspiration.

For a little more than an hour after that he was left alone. Finally his quick ear caught the shuffle of stealthy feet in the hall, then came an imperative rap on the door. The police had evidently feared to wait longer. Dolan was leaning over a sewing machine when the summons came. Instinctively his hand closed on his revolver, then he tossed it aside and walked to the door.

“Well?” he demanded.

“Let us in, Dolan,” came the reply.

“That you, Downey?” Dolan inquired.

“Yes. Now don’t make any mistakes, Mort. There are three of us here and Cunningham is in the alley watching your windows. There’s no way out.”

For one instant— only an instant— Dolan hesitated. It was not that he was repentant; it was not that he feared prison— it was regret at being caught. He had planned it all so differently, and the little woman would be heart-broken. Finally, with a quick backward glance at the sewing machine, he opened the

door. Three revolvers were thrust into his face with a unanimity that spoke well for the police opinion of the man. Dolan promptly raised his hands over his head.

"Oh, put down your guns," he expostulated. "I'm not crazy. My gun is over on the couch there."

Detective Downey, by a personal search, corroborated this statement then the revolvers were lowered.

"The chief wants you," he said. "It's about that Thirteenth National Bank robbery."

"All right," said Dolan, calmly and he held out his hands for the steel nippers.

"Now, Mort," said Downey, ingratiatingly, "you can save us a lot of trouble by telling us where the money is."

"Doubtless I could," was the ambiguous response.

Detective Downey looked at him and understood. Cunningham was called in from the alley. He and Downey remained in the apartment and the other two men led Dolan away. In the natural course of events the prisoner appeared before Detective Mallory at Police Headquarters. They were well acquainted, professionally.

Dolan told everything frankly from the inception of the plan to the actual completion of the crime. The detective sat with his feet on his desk listening. At the end he leaned forward toward the prisoner.

"And where is the money?" he asked.

Dolan paused long enough to roll a cigarette.

"That's my business," he responded, pleasantly.

"You might just as well tell us," insisted Detective Mallory. "We will find it, of course, and it will save us trouble."

"I'll just bet you a hat you don't find it," replied Dolan, and there was a glitter of triumph in his eyes. "On the level, between man and man now I will bet you a hat that you never find that money."

"You're on," replied Detective Mallory. He looked keenly at his prisoner and his prisoner stared back without a quiver. "Did

your wife get away with it?"

From the question Dolan surmised that she had not been arrested.

"No," he answered.

"Is it in your flat?"

"Downey and Cunningham are searching now," was the rejoinder. "They will report what they find."

There was silence for several minutes as the two men— officer and prisoner— stared each at the other. When a thief takes refuge in a refusal to answer questions he becomes a difficult subject to handle. There was the "third degree" of course, but Dolan was the kind of man who would only laugh at that; the kind of man from whom anything less than physical torture could not bring a statement if he didn't choose to make it. Detective Mallory was perfectly aware of this dogged trait in his character.

"It's this way, chief," explained Dolan at last. "I robbed the bank, I got the money, and it's now where you will never find it. I did it by myself, and am willing to take my medicine. Nobody helped me. My wife— I know your men waited for her before they took me— my wife knows nothing on earth about it. She had no connection with the thing at all and she can prove it. That's all I'm going to say. You might just as well make up your mind to it."

Detective Mallory's eyes snapped.

"You will tell where that money is," he blustered, "or—or I'll see that you get—"

"Twenty years is the absolute limit," interrupted Dolan quietly. "I expect to get twenty years— that's the worst you can do for me."

The detective stared at him hard.

"And besides," Dolan went on, "I won't be lonesome when I get where you're going to send me. I've got lots of friends there — been there before. One of the jailers is the best pinochle player I ever met."

Like most men who find themselves balked at the outset Detective Mallory sought to appease his indignation by heaping invective upon the prisoner, by threats, by promises, by wheedling, by bluster. It was all the same, Dolan remained silent. Finally he was led away and locked up.

A few minutes later Downey and Cunningham appeared. One glance told their chief that they could not enlighten him as to the whereabouts of the stolen money.

"Do you have any idea where it is?" he demanded.

"No, but I have a very definite idea where it isn't," replied Downey grimly. "It isn't in that flat. There's not one square inch of it that we didn't go over—not one object there that we didn't tear to pieces looking. It simply isn't there. He hid it somewhere before we got him."

"Well take all the men you want and keep at it," instructed Detective Mallory. "One of you, by the way, had better bring in Dolan's wife. I am fairly certain that she had nothing to do with it but she might know something and I can bluff a woman." Detective Mallory announced that accomplishment as if it were a thing to be proud of. "There's nothing to do now but get the money. Meanwhile I'll see that Dolan isn't permitted to communicate with anybody."

"There is always the chance," suggested Downey, "that a man as clever as Dolan could in a cipher letter, or by a chance remark, inform her where the money is if we assume she doesn't know, and that should be guarded against."

"It will be guarded against," declared Detective Mallory emphatically. "Dolan will not be permitted to see or talk to anyone for the present—not even an attorney. He may weaken later on."

But day succeeded day and Dolan showed no signs of weakening. His wife, meanwhile, had been apprehended and subjected to the "third degree." When this ordeal was over the net result was that Detective Mallory was convinced that she had had nothing whatever to do with the robbery, and had not

the faintest idea where the money was. Half a dozen times Dolan asked permission to see her or to write to her. Each time the request was curtly refused.

Newspaper men, with and without inspiration, had sought the money vainly; and the police were now seeking to trace the movements of "Mort" Dolan from the moment of the robbery until the moment of his appearance on the steps of the house where he lived. In this way they hoped to get an inkling of where the money had been hidden, for the idea of the money being in the flat had been abandoned. Dolan simply wouldn't say anything. Finally, one day, Hutchinson Hatch, reporter, made an exhaustive search of Dolan's flat, for the fourth time, then went over to Police Headquarters to talk it over with Mallory. While there President Ashe and two directors of the victimized bank appeared. They were worried.

"Is there any trace of the money?" asked Mr. Ashe.

"Not yet," responded Detective Mallory.

"Well, could we talk to Dolan a few minutes?"

"If we didn't get anything out of him you won't," said the detective. "But it won't do any harm. Come along."

Dolan didn't seem particularly glad to see them. He came to the bars of his cell and peered through. It was only when Mr. Ashe was introduced to him as the President of the Thirteenth National that he seemed to take any interest in his visitors. This interest took the form of a grin. Mr. Ashe evidently had something of importance on his mind and was seeking the happiest method of expression. Once or twice he spoke aside to his companions, and Dolan watched them curiously. At last he turned to the prisoner.

"You admit that you robbed the bank?" he asked.

"There's no need of denying it," replied Dolan.

"Well," and Mr. Ashe hesitated a moment, "the Board of Directors held a meeting this morning, and speaking on their behalf I want to say something. If you will inform us of the whereabouts of the money we will, upon its recovery, exert

every effort within our power to have your sentence cut in half. In other words, as I understand it, you have given the police no trouble, you have confessed the crime and this, with the return of the money, would weigh for you when sentence is pronounced. Say the maximum is twenty years, we might be able to get you off with ten if we get the money."

Detective Mallory looked doubtful. He realized, perhaps, the futility of such a promise yet he was silent. The proposition might draw out something on which to proceed.

"Can't see it," said Dolan at last. "It's this way. I'm twenty-seven years old. I'll get twenty years. About two of that'll come off for good behaviour, so I'll really get eighteen years. At the end of that time I'll come out with one hundred and nine thousand dollars odd— rich for life and able to retire at forty-five years. In other words while in prison I'll be working for a good, stiff salary— something really worth while. Very few men are able to retire at forty-five."

Mr. Ashe readily realized the truth of this statement. It was the point of view of a man to whom mere prison has few terrors — a man content to remain immured for twenty years for a consideration. He turned and spoke aside to the two directors again.

"But I'll tell you what I *will* do," said Dolan, after a pause. "If you'll fix it so I get only two years, say, I'll give you half the money."

There was silence. Detective Mallory strolled along the corridor beyond the view of the prisoner and summoned President Ashe to his side by a jerk of his head.

"Agree to that," he said. "Perhaps he'll really give up."

"But it wouldn't be possible to arrange it, would it?" asked Mr. Ashe.

"Certainly not," said the detective, "but agree to it. Get your money if you can and then we'll nail him anyhow."

Mr. Ashe stared at him a moment vaguely indignant at the treachery of the thing, then greed triumphed. He walked back to

the cell.

"We'll agree to that, Mr. Dolan," he said briskly. "Fix a two years' sentence for you in return for half the money."

Dolan smiled a little.

"All right, go ahead," he said. "When sentence of two years is pronounced and a first class lawyer arranges it for me so that the matter can never be reopened I'll tell you where you can get your half."

"But of course you must tell us that now," said Mr. Ashe.

Dolan smiled cheerfully. It was a taunting, insinuating, accusing sort of smile and it informed the bank president that the duplicity contemplated was discovered. Mr. Ashe was silent for a moment, then blushed.

"Nothing doing," said Dolan, and he retired into a recess of his cell as if his interest in the matter were at an end.

"But— but we need the money now," stammered Mr. Ashe. "It was a large sum and the theft has crippled us considerably."

"All right," said Dolan carelessly. "The sooner I get two years the sooner you get it."

"How could it be— be fixed?"

"I'll leave that to you."

That was all. The bank president and the two directors went out fuming impotently. Mr. Ashe paused in Detective Mallory's office long enough for a final word.

"Of course it was brilliant work on the part of the police to capture Dolan," he said caustically, "but it isn't doing us a particle of good. All I see now is that we lose a hundred and nine thousand dollars."

"It looks very much like it," assented the detective, "unless we find it."

"Well, why *don't* you find it?"

Detective Mallory had to give it up.

"WHAT did Dolan do with the money?" Hutchinson Hatch was asking of Professor Augustus S. F. X. Van Dusen— The

Thinking Machine. The distinguished scientist and logician was sitting with his head pillowed on a cushion and with squint eyes turned upward. "It isn't in the flat. Everything indicates that it was hidden somewhere else."

"And Dolan's wife?" inquired The Thinking Machine in his perpetually irritated voice. "It seems conclusive that she had no idea where it is?"

"She has been put through the 'third degree,' " explained the reporter, "and if she had known she would probably have told."

"Is she living in the flat now?"

"No. She is stopping with her sister. The flat is under lock and key. Mallory has the key. He has shown the utmost care in everything he has done. Dolan has not been permitted to write to or see his wife for fear he would let her know some way where the money is; he has not been permitted to communicate with anybody at all, not even a lawyer. He did see President Ashe and two directors of the bank but naturally he wouldn't give them a message for his wife."

The Thinking Machine was silent. For five, ten, twenty minutes he sat with long, slender fingers pressed tip to tip, squinting unblinkingly at the ceiling. Hatch waited patiently.

"Of course," said the scientist at last, "one hundred and nine thousand dollars, even in large bills would make a considerable bundle and would be extremely difficult to hide in a place that has been gone over so often. We may suppose, therefore, that it isn't in the flat. What have the detectives learned as to Dolan's whereabouts after the robbery and before he was taken?"

"Nothing," replied Hatch, "nothing, absolutely. He seemed to disappear off the earth for a time. That time, I suppose, was when he was disposing of the money. His plans were evidently well laid."

"It would be possible of course, by the simple rules of logic, to sit still here and ultimately locate the money," remarked The Thinking Machine musingly, "but it would take a long time. We might begin, for instance, with the idea that he contemplated

flight? When? By rail or steamer? The answers to those questions would, in a way, enlighten us as to the probable location of the money, because, remember, it would have to be placed where it was readily accessible in case of flight. But the process would be a long one. Perhaps it would be best to make Dolan tell us where he hid it."

"It would if he would tell," agreed the reporter, "but he is reticent to a degree that is maddening when the money is mentioned."

"Naturally," remarked the scientist. "That really doesn't matter. I have no doubt he will inform me."

So Hatch and The Thinking Machine called upon Detective Mallory. They found him in deep abstraction. He glanced up at the intrusion with an appearance, almost, of relief. He knew intuitively what it was.

"If you can find out where that money is, Professor" he declared emphatically, "I'll— I'll— well you can't."

The Thinking Machine squinted into the official eyes thoughtfully and the corners of his straight mouth were drawn down disapprovingly.

"I think perhaps there has been a little too much caution here, Mr. Mallory," he said. "I have no doubt Dolan will inform me as to where the money is. As I understand it his wife is practically without means?"

"Yes," was the reply. "She is living with her sister."

"And he has asked several times to be permitted to write to or see her?"

"Yes, dozens of times."

"Well, now suppose you do let him see her," suggested The Thinking Machine.

"Lord, that's just what he wants," blurted the detective. "If he ever sees her I know he will, in some way, by something he says, by a gesture, or a look inform her where the money is. As it is now I know she doesn't know where it is."

"Well, if he informs her won't he also inform us?" demanded

The Thinking Machine tartly. "If Dolan wants to convey knowledge of the whereabouts of the money to his wife let him talk to her— let him give her the information. I daresay if she is clever enough to interpret a word as a clue to where the money is I am too."

The detective thought that over. He knew this crabbed little scientist with the enormous head of old; and he knew, too, some of the amazing results he had achieved by methods wholly unlike those of the police. But in this case he was frankly in doubt.

"This way," The Thinking Machine continued. "Get the wife here, let her pass Dolan's cell and speak to him so that he will know that it is her, then let her carry on a conversation with him while she is beyond his sight. Have a stenographer, without the knowledge of either, take down just what is said, word for word. Give me a transcript of the conversation, and hold the wife on some pretext until I can study it a little. If he gives her a clue I'll get the money."

There was not the slightest trace of egotism in the irritable tone. It seemed merely a statement of fact. Detective Mallory, looking at the wizened face of the logician, was doubtfully hopeful and at last he consented to the experiment. The wife was sent for and came eagerly, a stenographer was placed in the cell adjoining Dolan, and the wife was led along the corridor. As she paused in front of Dolan's cell he started toward her with an exclamation. Then she was led on a little way out of his sight.

With face pressed close against the bars Dolan glowered out upon Detective Mallory and Hatch. An expression of awful ferocity leapt into his eyes.

"What're you doing with her?" he demanded.

"Mort, Mort," she called.

"Belle, is it you?" he asked in turn.

"They told me you wanted to talk to me," explained the wife. She was panting fiercely as she struggled to shake off the hands which held her beyond his reach.

"What sort of a game is this, Mallory?" demanded the prisoner.

"You've wanted to talk to her," Mallory replied, "now go ahead. You may talk, but you must not see her."

"Oh, that's it, eh?" snarled Dolan. "What did you bring her here for then? Is she under arrest?"

"Mort, Mort," came his wife's voice again. "They won't let me come where I can see you."

There was utter silence for a moment. Hatch was overpowered by a feeling that he was intruding upon a family tragedy, and tiptoed beyond reach of Dolan's roving eyes to where The Thinking Machine was sitting on a stool, twiddling his fingers. After a moment the detective joined them.

"Belle?" called Dolan again. It was almost a whisper.

"Don't say anything, Mort," she panted. "Cunningham and Blanton are holding me— the others are listening."

"I don't want to say anything," said Dolan easily. "I did want to see you. I wanted to know if you are getting along all right. Are you still at the flat?"

"No, at my sister's," was the reply. "I have no money— I can't stay at the flat."

"You know they're going to send me away?"

"Yes," and there was almost a sob in the voice. "I— I know it."

"That I'll get the limit— twenty years?"

"Yes."

"Can you— get along?" asked Dolan solicitously. "Is there anything you can do for yourself?"

"I will do something," was the reply. "Oh, Mort, Mort, why —"

"Oh never mind that," he interrupted impatiently. "It doesn't do any good to regret things. It isn't what I planned for, little girl, but it's here so— so I'll meet it. I'll get the good behaviour allowance—that'll save two years, and then—"

There was a menace in the tone which was not lost upon the

listeners.

"Eighteen years," he heard her moan.

For one instant Dolan's lips were pressed tightly together and in that instant he had a regret—regret that he had not killed Blanton and Cunningham rather than submit to capture. He shook off his anger with an effort.

"I don't know if they'll permit me ever to see you," he said, desperately, "as long as I refuse to tell where the money is hidden, and I know they'll never permit me to write to you for fear I'll tell you where it is. So I suppose the good-bye'll be like this. I'm sorry, little girl."

He heard her weeping and hurled himself against the bars in a passion; it passed after a moment. He must not forget that she was penniless, and the money— that vast fortune—!

"There's one thing you must do for me, Belle," he said after a moment, more calmly. "This sort of thing doesn't do any good. Brace up, little girl, and wait— wait for me. Eighteen years is not forever, we're both young, and— but never mind that. I wish you would please go up to the flat and— do you remember my heavy, brown coat?"

"Yes, the old one?" she asked.

"That's it," he answered. "It's cold here in this cell. Will you please go up to the flat when they let you loose and sew up that tear under the right arm and send it to me here? It's probably the last favour I'll ask of you for a long time so will you do it this afternoon?"

"Yes," she answered, tearfully.

"The rip is under the right arm, and be certain to sew it up," said Dolan again. "Perhaps, when I am tried, I shall have a chance to see you and—"

The Thinking Machine arose and stretched himself a little.

"That's all that's necessary, Mr. Mallory," he said. "Have her held until I tell you to release her."

Mallory made a motion to Cunningham and Blanton and the woman was led away, screaming. Hatch shuddered a little, and

Dolan, not understanding, flung himself against the bars of his cell like a caged animal.

"Clever, aren't you?" he snarled as he caught sight of Detective Mallory. "Thought I'd try to tell her where it was, but I didn't and you never will know where it is— not in a thousand years."

Accompanied by The Thinking Machine and Hatch the detective went back to his private office. All were silent but the detective glanced from time to time into the eyes of the scientist.

"Now, Mr. Hatch, we have the whereabouts of the money settled," said Thinking Machine, quietly. "Please go at once to the flat and bring the brown coat Dolan mentioned. I daresay the secret of the hidden money is somewhere in that coat."

"But two of my men have already searched that coat," protested the detective.

"That doesn't make the least difference," snapped the scientist.

The reporter went out without a word. Half an hour later he returned with the brown coat. It was a commonplace looking garment, badly worn and in sad need of repair not only in the rip under the arm but in other places. When he saw it The Thinking Machine nodded his head abruptly as if it were just what he had expected.

"The money can't be in that and I'll bet my head on it," declared Detective Mallory, flatly. "There isn't room for it."

The Thinking Machine gave him a glance in which there was a touch of pity.

"We know," he said, "that the money isn't in this coat. But can't you see that it is perfectly possible that a slip of paper on which Dolan has written down the hiding place of the money can be hidden in it somewhere? Can't you see that he asked for this coat— which is not as good a one as the one he is wearing now — in order to attract his wife's attention to it? Can't you see it is the one definite thing that he mentioned when he knew that in

all probability he would not be permitted to see his wife again, at least for a long time?"

Then, seam by seam, the brown coat was ripped to pieces. Each piece in turn was submitted to the sharpest scrutiny. Nothing resulted. Detective Mallory frankly regarded it all as wasted effort and when there remained nothing of the coat save strips of cloth and lining he was inclined to be triumphant. The Thinking Machine was merely thoughtful.

"It went further back than that," the scientist mused, and tiny wrinkles appeared in the dome-like brow. "Ah! Mr. Hatch please go back to the flat, look in the sewing machine drawers, or work basket and you will find a spool of brown thread. Bring it to me."

"Spool of brown thread?" repeated the detective in amazement. "Have you been through the place?"

"No."

"How do you know there's a spool of brown thread there, then?"

"I know it because Mr. Hatch will bring it back to me," snapped The Thinking Machine. "I know it by the simplest, most rudimentary rules of logic."

Hatch went out again. In half an hour he returned with a spool of brown thread. The Thinking Machine's white fingers seized upon it eagerly, and his watery, squint eyes examined it. A portion of it had been used— the spool was only half gone. But he noted— and as he did his eyes reflected a glitter of triumph— he noted that the paper cap on each end was still in place.

"Now, Mr. Mallory," he said, "I'll demonstrate to you that in Dolan the police are dealing with a man far beyond the ordinary bank thief. In his way he is a genius. Look here!"

With a pen-knife he ripped off the paper caps and looked through the hole of the spool. For an instant his face showed blank amazement. Then he put the spool down on the table and squinted at it for a moment in absolute silence.

“It must be here,” he said at last. “It must be, else why did he — of course!”

With quick fingers he began to unwind the thread. Yard after yard it rolled off in his hand, and finally in the mass of brown on the spool appeared a white strip. In another instant The Thinking Machine held in his hand a tiny, thin sheet of paper— a cigarette paper. It had been wound around the spool and the thread wound over it so smoothly that it was impossible to see that it had ever been removed.

The detective and Hatch were leaning over his shoulder watching him curiously. The tiny paper unfolded— something was written on it. Slowly The Thinking Machine deciphered it.

“47 Causeway Street, basement, tenth flagstone from northeast corner.”

And there the money was found— \$109,000. The house was unoccupied and within easy reach of a wharf from which a European bound steamer sailed. Within half an hour of sailing time it would have been an easy matter for Dolan to have recovered it all and that without in the least exciting the suspicion of those who might be watching him; for a saloon next door opened into an alley behind, and a broken window in the basement gave quick access to the treasure.

“Dolan reasoned,” The Thinking Machine explained, “that even if he was never permitted to see his wife she would probably use that thread and in time find the directions for recovering the money. Further he argued that the police would never suspect that a spool contained the secret for which they sought so long. His conversation with his wife, today, was merely to draw her attention to something which would require her to use the spool of brown thread. The brown coat was all that he could think of. And that’s all I think.”

Dolan was a sadly surprised man when news of the recovery of the money was broken to him. But a certain quaint philosophy didn’t desert him. He gazed at Detective Mallory incredulously as the story was told and at the end went over and

sat down on his cell cot.

"Well, chief," he said, "I didn't think it was in you. That makes me owe you a hat."

50: Problem of the Hidden Million

The gray hand of Death had already left its ashen mark upon the wrinkled, venomous face of the old man, who lay huddled up in bed. Save for the feverishly brilliant eyes— cunning, vindictive, hateful— there seemed to be no spark of life in the aged form. The withered lips were mute, and the thin, yellow, claw-like hands lay helplessly outstretched on the white sheets. All physical power was gone; only the brain remained doggedly alive. Two men and two women stood beside the death bed. Upon each in turn the glittering eyes rested with the merciless, unreasoning hatred of age. Crouched on the floor was a huge St. Bernard dog; and on a perch across the room was a parrot which screeched abominably.

The gloom of the wretched little room was suddenly relieved by a ruddy sunbeam which shot athwart the bed and lighted the scene fantastically. The old man noted it, and his lips curled into a hideous smile.

"That's the last sun I'll ever see," he piped feebly. "I'm dying — dying! Do you hear? And you're all glad of it, every one of you. Yes, you are! You are glad of it because you want my money. You came here to make me believe you were paying a last tribute of respect to your old grandfather. But that isn't it. It's the money you want— the money! But I've got a surprise for you. You'll never get the money. It's hidden safely— you'll never get it. You all hate me, you have hated me for years, and after that sun dies you'll all hate me worse. But not more than I hate you. You'll all hate me worse then, because I'll be gone and you'll never know where the money is hidden. It will lie there safely where I put it, rotting and crumbling away; but you shall

never warm your fingers with it! It's hidden— hidden— hidden!"

There was rasping in the shrunken throat, a deeply drawn breath, then the figure stiffened and a distorted soul passed out upon the Eternal Way.

MARTHA held a card within the blinding light of the reflector, and Professor Augustus S. F. X. Van Dusen, with his hands immersed to the elbows in some chemical mess, squinted at it.

"Dr. Walter Ballard," he read. "Show him in."

After a moment Dr. Ballard entered. The scientist was still absorbed in his labors, but paused long enough to jerk his head toward a chair. Dr. Ballard accepted this as an invitation and sat down, staring curiously at the singular, childlike figure of this eminent man of science, at the mop of tangled, straw yellow hair, the enormous brow, and the peering blue eyes.

"Well?" demanded the scientist abruptly.

"I beg your pardon," began Dr. Ballard with a little start. "Your name was mentioned to me sometime ago by a newspaper reporter, Hutchinson Hatch, whom I chanced to meet in his professional capacity. He suggested then that I come and see you, but I thought it useless. Now the affair in which we were both interested at that time seems hopelessly beyond solution, so I come to you for aid.

"We want to find one million dollars in gold and United States bonds, which were hidden by my grandfather, John Walter Ballard, sometime before his death just a month ago. The circumstances are altogether out of the ordinary."

The Thinking Machine abandoned his labors, and dried his hands carefully, after which he took a seat facing Dr. Ballard. "Tell me about it," he commanded.

"Well," began Dr. Ballard reminiscently, as he settled back in his chair, "the old man— my grandfather— died, as I said, a month ago. He was nearly eighty-six, and the last five or six years of his life he spent as a recluse in a little hut twenty miles from the city, a place some distance from any other house. He

had a spot of ground there, half an acre or so, and lived like a pauper, despite the fact that he was worth at least a million dollars. Previous to the time he went there to live, there had been an estrangement with my family, his sole heirs. My family consists of myself, wife, son, and daughter.

“My grandfather lived in the house with me for ten years before he went out to this hut; and why he left us then is not clear to any member of my family, unless,” and he shrugged his shoulders, “he was mentally unbalanced. Anyway, he went. He would neither come to see us, nor would he permit us to go to see him. As far as we know, he owned no real property of any sort, except this miserable little place, worth altogether—furnishing and all— not more than a thousand or twelve hundred dollars.

“Well, about a month ago some one stopped at the hut for something and found he was ill. I was notified, and with my wife, son and daughter went to see what we could do. He took occasion on his death bed to heap vituperation upon us, and incidentally to state that something like a million dollars was left behind, but hidden.

“For the sake of my son and daughter, I undertook to recover this money. I consulted attorneys, private detectives, and in fact exhausted every possible method. I ascertained beyond question that the money was not in a bank anywhere; and hardly think he would have left it there, because of course, if he had, even with a will disinheriting us, the law would have turned it over to us. He had no safe deposit vault as far as one month’s close search revealed, and the money was not hidden in the house or grounds. He stated on his death bed that it was in bonds and gold, and that we should never find it. He was just vindictive enough not to destroy it, but to leave it somewhere, believing we should never find it. Where did he hide it?”

The Thinking Machine sat silent for several minutes, with his enormous yellow head tilted back, and slender fingers pressed together. “The house and grounds were searched?” he asked.

“The house was searched from cellar to garret,” was the reply. “Workmen, under my directions, practically wrecked the building. Floors, ceilings, walls, chimney, stairs,— everything,— little cubby holes in the roof, the foundation of the chimney, the pillars, even the flag stones leading from the gate to the door,— everything was examined. The joists were sounded to see if they were solid, and a dozen of them were cut through; the posts on the veranda were cut to pieces; and every stick of furniture was dissected— mattresses, beds, chairs, tables, bureaus— all of it. Outside in the grounds the search was just as thorough. Not one square inch but what was overturned. We dug it all up to a depth of ten feet. Still nothing.”

“Of course,” said the scientist at last, “the search of the house and grounds was useless. The old man was shrewd enough to know that they would be searched. Also it would appear that the search of banks and safety deposit vaults was equally useless. He was shrewd enough to foresee that too. We shall, for the present, assume that he did not destroy the money or give it away; so it is hidden. If the brain of man is clever enough to conceal a thing, the brain of man is clever enough to find it. It’s a little problem in subtraction, Dr. Ballard.” He was silent for a moment. “Who was your grandfather’s attending physician?”

“I was. I was present at his death. Nothing could be done. It was merely the collapse consequent upon old age. I issued the burial certificate.”

“Were any special directions left as to the place or manner of burial?”

“No.”

“Have all his papers been examined for a clue as to the possible hiding place?”

“Everything. There were no papers to amount to anything.”

“Have you those papers now?”

Dr. Ballard silently produced a packet and handed it to the scientist.

"I shall examine these at my leisure," said The Thinking Machine. "It may be a day or so before I communicate with you."

Dr. Ballard went his way. For a dozen hours The Thinking Machine sat with the papers spread out before him, and the keen, squinting, blue eyes dissected them, every paragraph, every sentence, every word. At the end he arose and bundled up the papers impatiently.

"Dear me! Dear me!" he exclaimed irritably. "There's no cipher—that's certain. Then what?"

DEVASTATING HANDS had wrought the wreck of the little hut where the old man died. Standing in the midst of its litter, The Thinking Machine regarded it closely and dispassionately for a long time. The work of destruction had been well done.

"Can you suggest anything?" asked Dr. Ballard impatiently.

"One mind may read another mind," said The Thinking Machine, "when there is some external thing upon which there can come concentration as a unit. In other words, when we have a given number the logical brain can construct either backward or forward. There are so many thousands of ways in which your grandfather could have disposed of this money, that the task becomes tremendous in view of the fact that we have no starting point. It is a case for patience, rather than any other quality; therefore, for greater speed, we must proceed psychologically. The question then becomes, not one of where the money is hidden, but one of where that sort of man would hide it.

"Now what sort of man was your grandfather?" the scientist continued. "He was crabbed, eccentric, and possibly not mentally sound. The cunning of a diseased brain is greater than the cunning of a normal one. He boasted to you that the money was in existence, and his last words were intended to arouse your curiosity; to hang over you all the rest of your life and torment you. You can imagine the vindictive, petty brain like

that putting a thing safely beyond your reach— but just beyond it— near enough to tantalize, and yet far enough to remain undiscovered. This seems to me to be the mental attitude in this case. Your grandfather knew that you would do just what you have done here; that is, search the house and lot. He knew too that you would search banks and safety deposit vaults, and with a million at stake he knew it would be done thoroughly. Knowing this, naturally he would not put the money in any of those places.

“Then what? He doesn’t own any other property, as far as we know, and we shall assume that he did not buy property in the name of some other person; therefore, what have we left? Obviously, if the money is still in existence, it is hidden on somebody’s else property. And the minute we say that, we have the whole wide world to search. But again, doesn’t the deviltry and maliciousness of the old man narrow that down? Wouldn’t he have liked to remember as a dying thought that the money was always just within your reach, and yet safely beyond it? Wouldn’t it have been a keener revenge to have you dig over the whole place, while the money was hidden just six feet outside in a spot where you would never dig? It might be sixty, or six hundred, or six thousand. But then we have the law of probability to narrow those limits; so—”

Professor Van Dusen turned suddenly and strolled across the uneven ground to the property line. Walking slowly and scrutinizing the ground as he went, he circled the lot, returning to the starting point. Dr. Ballard had followed along behind him.

“Are all your grandfather’s belongings still in the house?” asked the scientist.

“Yes, everything just as he left it; that is, except his dog and a parrot. They are temporarily in charge of a widow down the road here.”

The scientist looked at Dr. Ballard quickly. “What sort of dog is it?” he inquired.

“A St. Bernard, I think,” replied Dr. Ballard wonderingly.

"Do you happen to have a glove or something that you know your grandfather wore?"

"I have a glove, yes."

From the debris which littered the floor of the house, a well worn glove was recovered.

"Now, the dog, please," commanded the scientist.

A short walk along the country road brought them to a house, and here they stopped. The St. Bernard, a shaggy, handsome, boisterous old chap, with wise eyes, was led out in leash. The Thinking Machine thrust the glove forward, and the dog sniffed at it. After a moment he sank down on his haunches, and with head thrust forward and upward, whined softly. It was the call of the brute soul to its master.

The Thinking Machine patted the heavy-coated head, and with the glove still in his hand made as if to go away. Again came the whine, but the dog sank down on the floor, with his head between his forepaws, regarding him intently. For ten minutes the scientist sought to coax the animal to follow him, but still he lay motionless.

"I don't mind keepin' that dog here; but that parrot is powerful noisy," said the woman after a moment. She had been standing by watching the scientist curiously. "There ain't no peace in the house."

"Noisy— how?" asked Dr. Ballard.

"He swears, and sings and whistles, and does 'rithmetic all day long," the woman explained. "It nearly drives me distracted."

"Does arithmetic?" inquired The Thinking Machine.

"Yes," replied the woman, "and he swears just terrible. It's almost like havin' a man about the house. There he goes now."

From another room came a sudden, squawking burst of profanity, followed instantly by a whistle, which caused the dog on the floor to prick up his ears.

"Does the parrot talk well?" asked the scientist.

"Just like a human bein'," replied the woman, "an' just about

as sensible as some I've seen. I don't mind his whistling, if only he wouldn't swear so, and do all his figgerin' out loud."

For a minute or more the scientist stood staring down at the dog in deep thought. Gradually there came some subtle change in his expression. Dr. Ballard was watching him closely.

"I think perhaps it would be a good idea for me to keep the parrot for a few days," suggested the scientist finally. He turned to the woman. "Just what sort of arithmetic does the bird do?"

"All kinds," she answered promptly. "He does all the multiplication table. But he ain't very good in subtraction."

"I shouldn't be surprised," commented The Thinking Machine. "I'll take the bird for a few days, doctor, if you don't mind."

And so it came to pass that when The Thinking Machine returned to his apartments he was accompanied by as noisy and vociferous a companion as one would care to have.

Martha, the aged servant, viewed him with horror as he entered. "The perffessor do be gettin' old," she muttered. "I suppose there'll be a cat next."

Two days later Dr. Ballard was called to the telephone. The Thinking Machine was at the other end of the wire.

"Take two men whom you can trust and go down to your grandfather's place," instructed the scientist curtly. "Take picks, shovels, a compass, and a long tape line. Stand on the front steps facing east. To your right will be an apple tree some distance off that lot on the adjoining property. Go to that apple tree. A boulder is at its foot. Measure from the edge of that stone twenty-six feet due north by the compass, and from that point fourteen feet due west. You will find your money there. Then please have some one come and take this bird away. If you don't, I'll wring its neck. It's the most blasphemous creature I ever heard. Good bye."

DR. BALLARD slipped the catch on the suit case and turned it upside down on the laboratory table. It was packed—literally

packed—with United States bonds. The Thinking Machine fingered them idly.

“And there is this too,” said Dr. Ballard.

He lifted a stout sack from the floor, cut the string, and spilled out its contents beside the bonds. It was gold—thousands and thousands of dollars. Dr. Ballard was frankly excited about it; The Thinking Machine accepted it as he accepted all material things.

“How much is there of it?” he asked quietly.

“I don’t know,” replied Dr. Ballard.

“And how did you find it?”

“As you directed— twenty-six feet north from the boulder, and fourteen feet west from that point.”

“I knew that, of course,” snapped The Thinking Machine; “but how was it hidden?”

“It’s rather peculiar,” explained Dr. Ballard. “Fourteen feet brought the man who had measured it to the edge of an old, dried up well, twelve or fifteen feet deep. Not expecting any such thing, he tumbled into it. In his efforts to get out he stepped upon a stone which protruded from one side. That fell out, and revealed the wooden box, which contained all this.”

“In other words,” said the scientist, “the money was hidden in such a manner that it would in time have come to be buried twelve or fifteen feet below the surface, because the well, being dry, would ultimately, of course, have been filled in.”

Dr. Ballard had been listening only hazily. His hands had been plowing in and out of the heap of gold. The Thinking Machine regarded him with something like contempt about his thin-lipped mouth.

“How— how did you ever do it?” asked Dr. Ballard at last.

“I am surprised that you want to know,” remarked The Thinking Machine cuttingly. “You know how I reached the conclusion that the money was not hidden either in the house or lot. The plain logic of the thing told me that, even before the search you had made demonstrated it. You saw how logic

narrowed down the search, and you saw my experiment with the dog. That was purely an experiment. I wanted to see the instinct of the animal. Would it lead him anywhere?— perhaps to the spot where the money had been hidden? It did not.

“But the parrot? That was another matter. It just happens that once before I had an interesting experience with a bird— a cockatoo which figured in a sleep walking case— and naturally was interested in this bird. Now, what were the circumstances in this case? Here was a bird that talked exceptionally well, yet that bird had been living for five years alone with an old man. It is a fact that, no matter how well a parrot may talk, it will forget in the course of time, unless there is some one around it who talks. This old man was the only person near this bird; therefore, from the fact that the bird talks, we know that the old man talked; from the fact that the bird repeated the multiplication table, we know that the old man repeated it; from the fact that the bird whistles, we know that the old man whistled, perhaps to the dog. And in the course of five years under these circumstances, a bird would have come to that point where it would repeat only the words or sounds that the old man used.

“All this shows too that the old man talked to himself. Most people who live alone a great deal do that. Then came a question as to whether at any time the old man had ever repeated the secret of the hiding place within the hearing of the bird— not once but many times, because it takes a parrot a long time to learn phrases. When we know the vindictiveness which lay behind the old man’s actions in hiding the money, when we know how the thing preyed on his mind, coupled with the fact that he talked to himself, and was not wholly sound mentally, we can imagine him doddering about the place alone, repeating the very thing of which he had made so great a secret. Thus, the bird learned it, but learned it disjointedly, not connectedly; so when I brought the parrot here, my idea was to know by personal observation what the bird said that didn’t connect— that is, that had no obvious meaning, I hoped to get a clue which

would result, just as the clue I did get did result.

“The bird’s trick of repeating the multiplication table means nothing except it shows the strange workings of an unbalanced mind. And yet, there is one exception to this. In a disjointed sort of way, the bird knows all the multiplication tables to ten, except one. For instance— listen!”

The Thinking Machine crept stealthily to a door and opened it softly a few inches. From somewhere out there came the screeching of the parrot. For several minutes they listened in silence. There was a flood of profanity, a shrill whistle or two, then the squawking voice ran off into a monotone.

“Six times one are six, six time two are twelve, six times three are eighteen, six times four are twenty-four— and add two.”

“That’s it,” explained the scientist, as he closed the door. “‘Six times four are twenty-four—and add two.’ That’s the one table the bird doesn’t know. The thing is incoherent, except as applied to a peculiar method of remembering a number. That number is twenty-six. On one occasion I heard the bird repeat a dozen times, ‘Twenty-six feet to the polar star.’ That could mean nothing except the direction of the twenty-six feet— due north. One of the first things I noticed the bird saying was something about fourteen feet to the setting sun— or due west. When set down with the twenty-six, I could readily see that I had something to go on.

“But where was the starting point? Again, logic. There was no tree or stone inside the lot, except the apple tree which your workmen cut down, and that was more than twenty-six feet from the boundary of the lot in all directions. There was one tree in the adjoining lot, an apple tree with a boulder at its foot. I knew that by observation. And there was no other tree, I knew also, within several hundred feet; therefore, that tree, or boulder rather, as a starting point— not the tree so much as the boulder, because the tree might be cut down, or would in time decay. The chances are the stone would have been allowed to

remain there indefinitely. Naturally your grandfather would measure from a prominent point— the boulder. That is all. I gave you the figures. You know the rest.”

For a minute or more, Dr. Ballard stared at him blankly. “How was it you knew,” he asked, “that the directions should have been first twenty-six feet north, then fourteen feet west, instead of first fourteen west, and then twenty-six feet north?”

“I didn’t know,” replied The Thinking Machine. “If you had failed to find the money by those directions, I should merely have reversed the order.”

Half an hour later Dr. Ballard went away, carrying the money and the parrot in its cage. The bird cursed The Thinking Machine roundly, as Dr. Ballard went down the steps.

End

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