NOVEL OF THE FUTURE COMPLETE IN THIS ISSUE

STARTLING STORIES

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A Hall of Fame Novelet
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FEATURING
TWICE IN TIME
A Complete Book-Length Novel of a Miracle Age
By MANLY WADE WELLMAN

A THRILLING PUBLICATION

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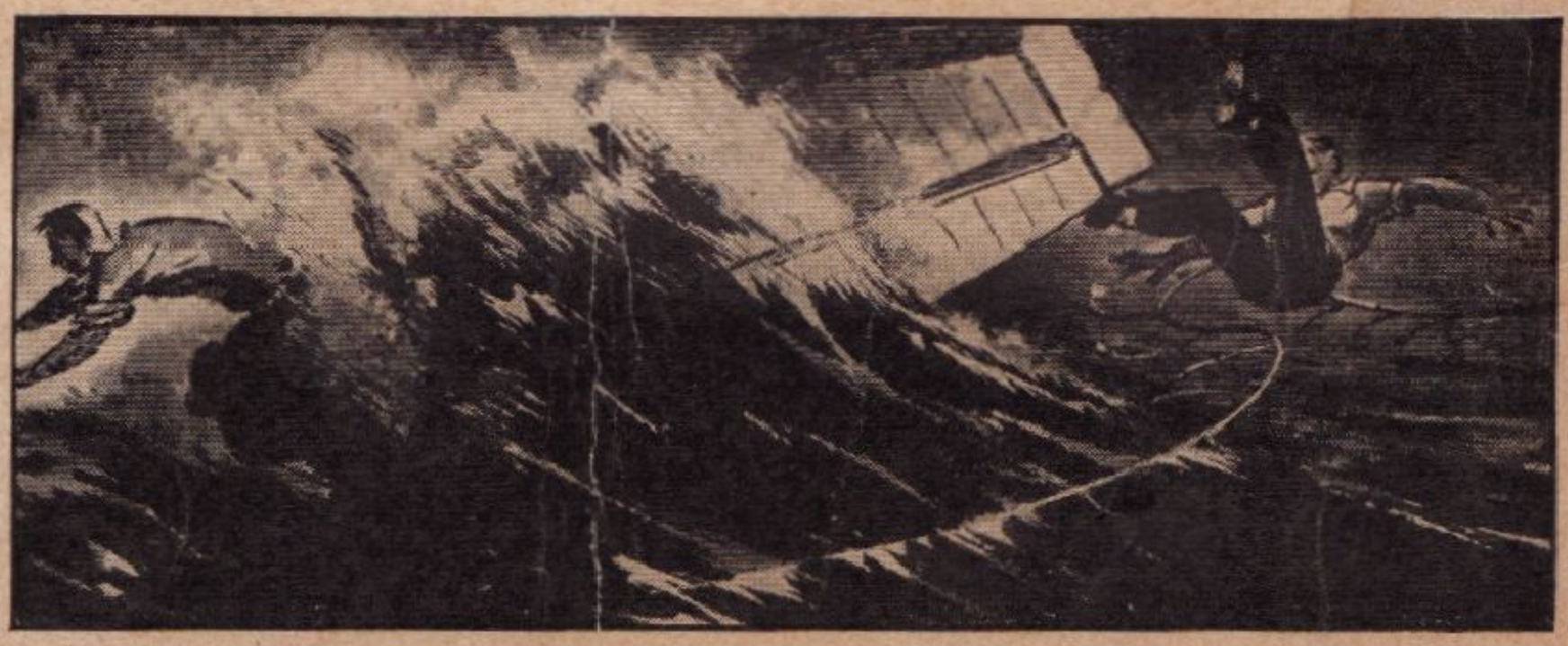
A true experience of C. J. LATIMER, *Warren, Ohio*

"ANOTHER FISHERMAN and myself had just finished setting a heavy trot-line in Lake Erie," writes Mr. Latimer, "when a sudden treacherous squall lashed out of nowhere and churned the water into towering waves.

"A WAVE SMACKED us broadside, and over we went! Then I felt a heavy drag on my leg. I was caught in the trot-line and was being pulled to my doom. In the darkness, my companion couldn't untangle me!



"BUT ONE OF OUR PARTY ON shore brought his flashlight into action. Its powerful beam cut the distance and darkness—and in a minute I was free. I shudder to think of what might have happened except for those dependable 'Eveready' *fresh* DATED batteries! *(Signed)* C. J. Latimer"

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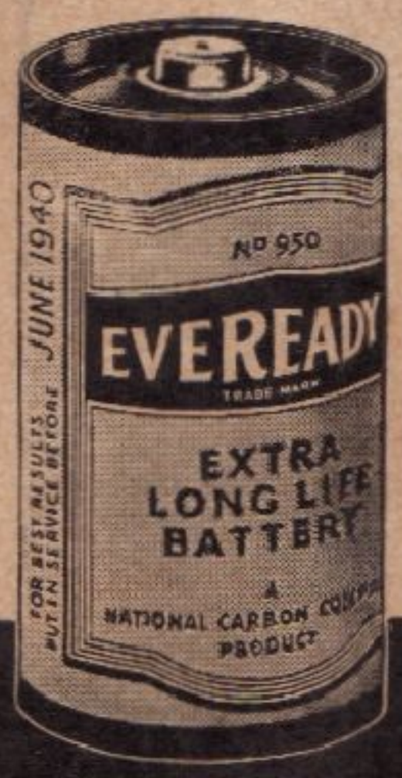

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Forty years ago the horse and buggy business was supreme—today almost extinct. Twenty years ago the phonograph industry ran into many millions—today practically a relic. Only a comparatively few foresighted men saw the fortunes ahead in the automobile and the radio. Yet irresistible waves of public buying swept these men to fortune, and sent the buggy and the phonograph into the discard. So are great successes made by men able to detect the shift in public favor from one industry to another.

Now another change is taking place. An old established industry—an integral and important part of the nation's structure—in which millions of dollars change hands every year—is in thousands of cases being replaced by a truly astonishing, simple invention which does the work better—more reliably—AND AT A COST OFTEN AS LOW AS 2% OF WHAT IS ORDINARILY PAID! It has not required very long for men who have taken over the rights to this valuable invention to do a remarkable business, and show earnings which in these times are almost unheard of for the average man.

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Make no mistake—this is no novelty—no flimsy creation which the inventor hopes to put on the market. You probably have seen nothing like it yet—perhaps never dreamed of the existence of such a device—yet it has already been used by corporations of outstanding prominence—by dealers of great corporations—by their branches—by doctors, newspapers, publishers—schools—hospitals, etc., etc., and by thousands of small business men. You don't have to convince a man that he should use an electric bulb to light his office instead of a gas lamp. Nor do you have to sell the same business man the idea that some day he may need something like this invention. The need is already there—the money is usually being spent right at that very moment—and the desirability of saving the greatest part of this expense is obvious immediately.

Some of the Savings You Can Show

You walk into an office and put down before your prospect a letter from a sales organization showing that they did work in their own office for $11 which formerly could have cost them over $200. A building supply corporation pays our man $70, whereas the bill could have been for $1,600! An automobile dealer pays our representative $15, whereas the expense could have been over $1,000. A department store has expense of $88.60, possible cost if done outside the business being well over $2,000. And so on. We could not possibly list all cases here. These are just a few of the many actual cases which we place in your hands to work with. Practically every line of business and every section of the country is represented by these field reports which hammer across dazzling, convincing money-saving opportunities which hardly any business man can fail to understand.

Profits Typical of the Young, Growing Industry

Going into this business is not like selling something offered in every grocery, drug or department store. For instance, when you take a $7.50 order, $5.83 can be your share. On $1,500 worth of business, your share can be $1,167.00. The very least you get as your part of every dollar's worth of business you do is 67 cents—on ten dollars' worth $6.70, on a hundred dollars' worth $67.00—in other words two thirds of every order you get is yours. Not only on the first order—but on repeat orders—and you have the opportunity of earning an even larger percentage.

This Business Has Nothing to Do With House to House Canvassing

Nor do you have to know anything about high-pressure selling. "Selling" is unnecessary in the ordinary sense of the word. Instead of hammering away at the customer and trying to "force" a sale, you make a dignified, business-like call, leave the installation—whatever size the customer says he will accept—at our risk, let the customer sell himself after the device is in and working. This does away with the need for pressure on the customer—it eliminates the handicap of trying to get the money before the customer has really convinced himself 100%. You simply tell what you offer, showing proof of success in that customer's particular line of business. Then leave the invention without a dollar down. It starts working at once. In a few short days, the installation should actually produce enough cash money to pay for the deal, with profits above the investment coming in at the same time. You then call back, collect your money. Nothing is so convincing as our offer to let results speak for themselves without risk to the customer! While others fail to get even a hearing, our men are making sales running into the hundreds. They have received the attention of the largest firms in the country, and sold to the smallest businesses by the thousands.

EARNINGS

One man in California earned over $1,600 per month for three months—close to $5,000 in 90 days' time. Another writes from Delaware—"Since I have been operating (just a little less than a month of actual selling) and not the full day at that, because I have been getting organized and had to spend at least half the day in the office; counting what I have sold outright and on trial, I have made just a little in excess of one thousand dollars profit for one month." A man working small city in N. Y. State made $10,805 in 9 months. Texas man nets over $300 in less than a week's time. Space does not permit mentioning here more than these few random cases. However, they are sufficient to indicate that the worthwhile future in this business is coupled with immediate earnings for the right kind of man. One man with us has already made over a thousand sales on which his earnings ran from $5 to $60 per sale and more. A great deal of this business was repeat business. Yet he had never done anything like this before coming with us. That is the kind of opportunity this business offers. The fact that this business has attracted to it such business men as former bankers, executives of businesses—men who demand only the highest type of opportunity and income—gives a fairly good picture of the kind of business this is. Our door is open, however, to the young man looking for the right field in which to make his start and develop his future.

No Money Need Be Risked

in trying this business out. You can measure the possibilities and not be out a dollar. *If you are looking for a business that is not overcrowded*—a business that is just coming into its own—on the upgrade, instead of the downgrade—a business that offers the buyer relief from a burdensome, but unavoidable expense—a business that has a prospect practically in every office, store, or factory into which you can set foot—regardless of size—*that is a necessity* but does not have any price cutting to contend with as other necessities do—that because you control the sales in exclusive territory is your own business—*that pays more on some individual sales than many men make in a week and sometimes in a month's time*—if such a business looks as if it is worth investigating, *get in touch with us at once* for the rights in your territory—don't delay—because the chances are that if you do wait, someone else will have written to us in the meantime—and if it turns out that you were the better man—we'd both be sorry. So for convenience, *use the coupon below*—but send it right away—or wire if you wish. But do it now. *Address*

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STARTLING STORIES

Vol. 3, No. 3 — May, 1940

CONTENTS

A Complete Book-Length Scientifiction Novel

TWICE IN TIME

By MANLY WADE WELLMAN

Leo Thrasher Embarks on a Thrilling Excursion into the Centuries of Yesteryear when a Time Projector Hurls Him into the Realm of the Forgotten Past! 14

Other Unusual Stories

Special Features

Cover Painting by H. V. Brown—Depicting Scene from TWICE IN TIME

STARTLING STORIES, published bi-monthly by Better Publications, Inc., N. L. Pines, President, at 4600 Diversey Ave., Chicago, Ill. Editorial and executive offices, 22 West 48th St., New York, N. Y. Entered as second class matter September 29, 1938, at the post office at Chicago, Illinois, under the act of March 3, 1879. Yearly $.90, single copies $.15; foreign and Canadian postage extra. Manuscripts will not be returned unless accompanied by self-addressed stamped envelope and are submitted at the author's risk. Names of all characters used in stories and semi-fiction articles are fictitious. If a name of any living person or existing institution is used, it is a coincidence.

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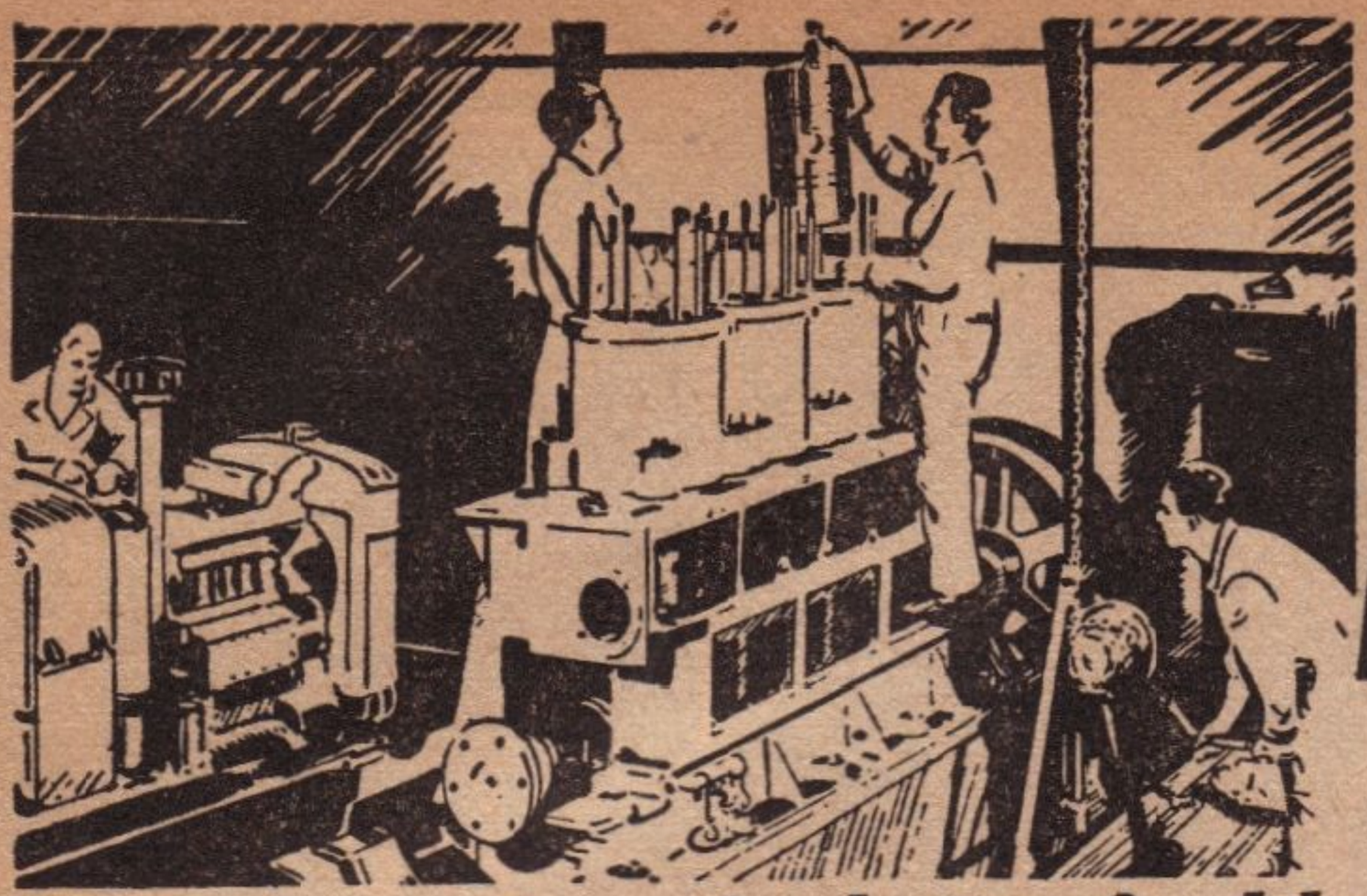

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21	$ .77	30	$ .97	39	$1.29	48	$1.87
22	.79	31	1.00	40	1.35	49	1.95
23	.81	32	1.03	41	1.39	50	2.04
24	.83	33	1.06	42	1.45	51	2.15
25	.85	34	1.09	43	1.51	52	2.27
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REVIEW OF THE SCIENCE FICTION FAN PUBLICATIONS

(Complimentary sample issues of fan journals listed here are available to readers. When requesting your specimen copy, please enclose a three-cent stamp to cover postage. Address your requests to the individual fan magazine editors, and please mention STARTLING STORIES.—Ed.)

SPACEWAYS. 303 Bryan Place, Hagerstown, Maryland. Edited by James Avery and Harry Warner, Jr.

Five star articles in this issue, by famous fans in the fantasy field. Mark Reinsberg contributes a tintype of E. E. (Skylark) Smith, and Harry Warner dishes out biographical data on the famous scientifiction novelist, Ralph Milne Farley. Chatty departments, with "Stardust" and "From the Control Room" stealing the issue.

* * *

GOLDEN ATOM. 57 Lyndhurst St., Rochester, N. Y. Edited by Larry B. Farsaci.

A contest for fantasy fans announced in this issue, tying up with the title of this mag and Ray Cummings, author of "The Girl in the Golden Atom," whence title is derived. Improvement noticeable in this gazette, latest issue ranking it with top-flight fan mags. "Who's Your Favorite Author?", a piece by Harry Warner, Jr., quite diverting. Table-of-contents also lists reviews, poetry, and what have you.

* * *

AD ASTRA. 3156 Cambridge Ave., Chicago, Ill. Edited by Mark Reinsberg, Richard I. Meyer, Erle Korshak.

Ace issue this time, with cover by Krupa that would be an eye-opener even on a pro mag. John W. Campbell, Jr., editor, appears with a guest editorial. Henry Kuttner's "That Moment of Horror" not to be missed. More than a dozen articles and departments in this great number by biggies in the field.

* * *

STARDUST. 2609 Argyle Street, Chicago, Ill. Edited by W. L. Hamling.

Here, at last—the streamlined scientifiction fan magazine. Volume 1, No. 1 of STARDUST introduces this new fan mag as the ESQUIRE in the amateur publication field. Magazine is printed on slick, glossy paper, with typography excellent. Large, attractive illustrations pep up the issue. By far the most attractive fan magazine ever to come to the attention of this department. Get your copy immediately, if the supply hasn't already become exhausted.

* * *

SCIENCE FICTION COLLECTOR. 1700 Frankford Ave., Philadelphia, Pa. Edited by John V. Baltadonis, Jr.

Still too much bickering among the fans in latest issue. This would be a good mag otherwise.

* * *

THE SCIENTALE. 3671 Broadway, N. Y. C. Edited by Thomas Hoquet and Bob Studley.

Another first issue of a new fan mag, with presentable material by Malcolm Jameson, Harry Warner, Jr., and W. L. Hamling. Mort Weisinger's piece, "Thrills in Scientifiction," the first of a brand-new series.

BOYS - GIRLS - MEN - WOMEN
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Lancaster County Seed Company, Station 321, Paradise, Pennsylvania

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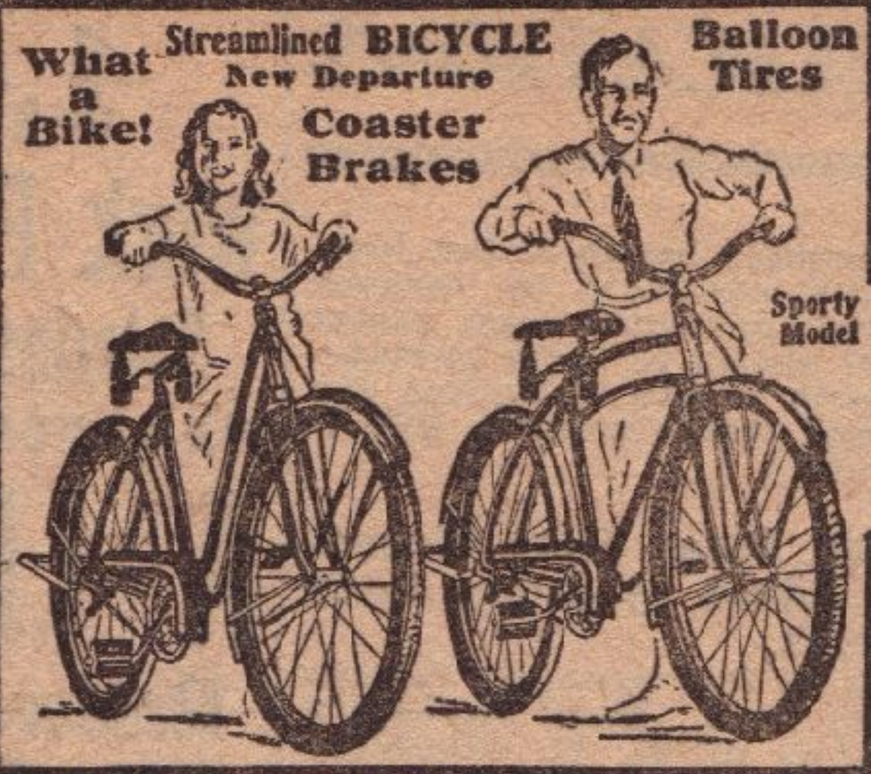

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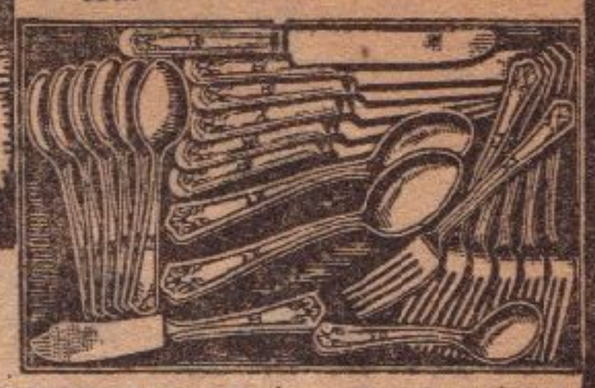
PIECE 22 TABLEWARE SET



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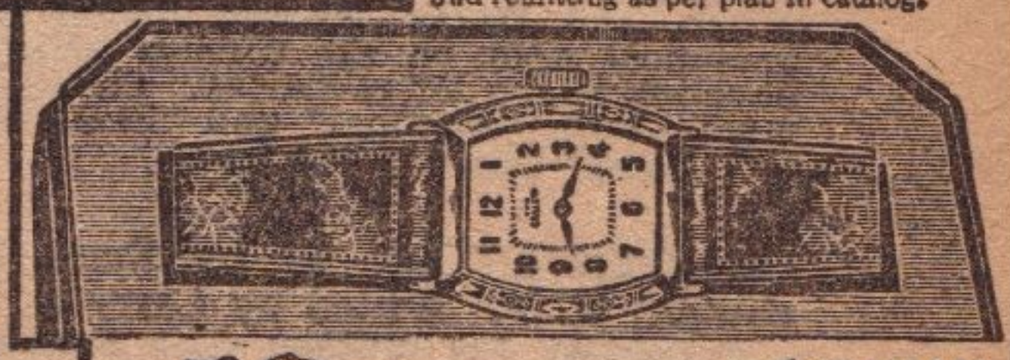

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MEET THE AUTHOR

A Journey in Time

By MANLY WADE WELLMAN

Author of "Twice in Time" and Other Scientifiction Tales

Manly Wade Wellman

TO begin with, I defy anyone to prove that "Twice in Time" is NOT true.

Because every important character, save one (find him—or her—for yourself), is taken straight from history; the chief national and community events dealt with happened substantially as here set forth; even most of the scenes and speeches are authentic.

I will say that you'll look hard before you find the Fortress of Santi Pelagrini on any map, and perhaps the Pazzi conspiracy is credited to another master mind by the textbooks; but otherwise things fell out just as I have them, and perhaps my scientific explanations are as believable as any alternates you can offer.

This is my most pretentious effort at a time-travel novel to date, and I will admit, in advance, all the obstacles that bob up in the path of such a story. In fact, the first chapter sets forth the biggest of these: the visualization of a person with three dimensions of space and one of time being a figure so many feet high, so many inches broad and thick and *so many years deep*.

If he travels in time, he must be two such figures—he must be twice in time.

But if one can achieve such a journey, where better could he go than to Florence in the Quatrecento, a city and age perhaps nowhere else equalled, unless in Athens of the Golden Age?

I have worked hard to make the place live again, and even at that I have barely flicked the fringes of it.

Mr. Virgil Finlay's illustrations go far toward making the setting and action as real as they should be.

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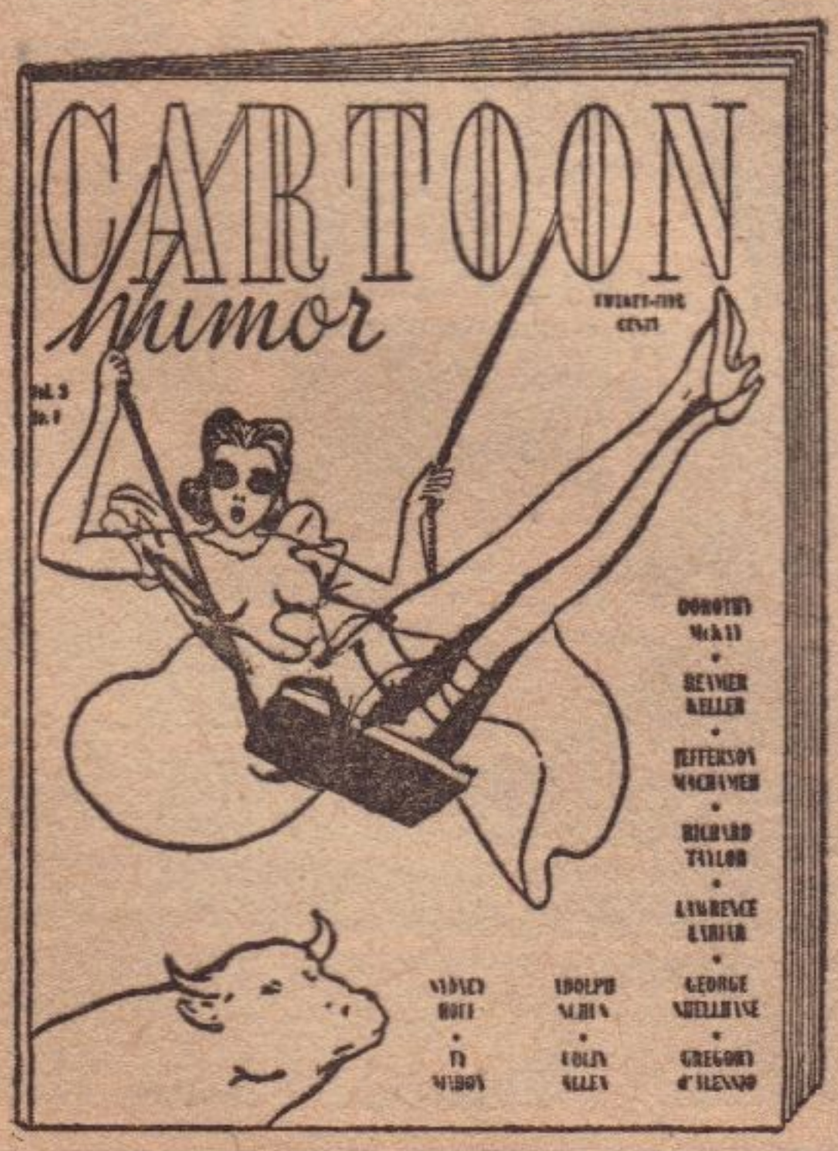

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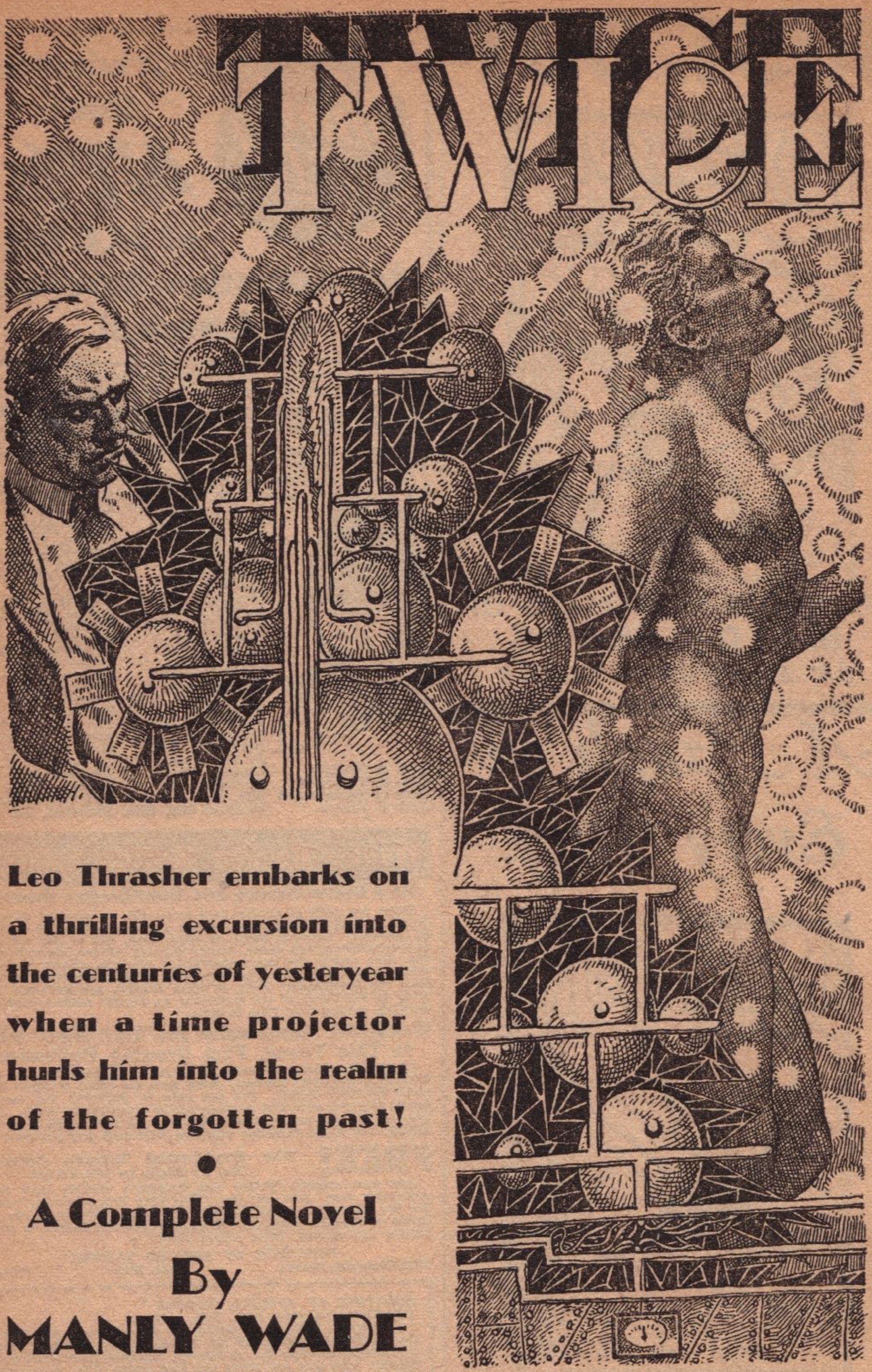

Leo Thrasher embarks on a thrilling excursion into the centuries of yesteryear when a time projector hurls him into the realm of the forgotten past!

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A Complete Novel

By

MANLY WADE WELLMAN

Author of "Dream-Dust from Mars," "Giants from Eternity," etc.

Illustrated by VIRGIL FINLAY

The white light beat upon me with sickening intensity, then I saw figures in a transparent ghost of a scene (Chapter I)

FOREWORD

THE document herewith given publication was placed in the hands of the editors in 1939. Whether or not it explains satisfactorily the strange disappearance of Leo Thrasher near Florence, Italy, in the spring of 1938, we do not pretend to decide.

The manuscript came to America in the luggage of Father David Sutton, an American priest, at the time of the recent outbreak of war in Europe. Father Sutton was in Rome at the time, and elected to remain, in hope of helping war sufferers if his aid should be needed. But since Italy remained neutral, he sent back most of his luggage to America by a friend. Later he sent an urgent letter, asking that this manuscript be examined and published, if possible. It came, Father Sutton said, from the strongroom of an immemorial theological library in

Florence, and was in the original casket that had apparently contained it for a long period of time.

The priest's friend brought us both Father Sutton's letter and the casket with the manuscript. This casket is of tarnished silver, elaborately worked in the Renaissance manner. A plate on the lid bears this legend, in Italian, French and Latin:

Let no man open or dispose of this casket, on peril of his soul, before the year 1939.

Father Sutton's New York friends insist that if he actually wrote the letter and sent the casket, they may be taken at face value. If it is a hoax perpetrated in his name, it is both elaborate and senseless. In any case, it is worth the study of those who love the curious.

Therefore, while neither affirming nor denying the truth of what appears, herewith is given in full the purported statement of the vanished Leo Thrasher.

CHAPTER I

The Time Reflector

THIS story, as unvarnished as I can make it, must begin where my twentieth-century life ends —in the sitting room of the suite taken by George Astley and myself at Tomasulo's inn, on a hill above the Arno. It is the clearest of all my clouded memories of that time. April was the month, still chilly for Tuscany, and we had a charcoal fire in the grate.

I knelt among my dismantled machinery, before the charcoal fire, testing the connections here and there.

"So that's your time-traveler, Thrasher?" said Astley. "Like the one H. G. Wells wrote about?"

"Not in the least like the one H. G. Wells wrote about," I said spiritedly, and not perhaps without a certain resentful pride. "He described a sort of century-hurdling mechanical horse. In its saddle you rode forward into the Judgment Day or back to the beginning. This thing of mine will work, but as a reflector."

I peered into the great cylindrical housing that held my lens, a carefully polished crystal of alum, more than two feet in diameter. I smiled with satisfaction.

"It won't carry me into time," I assured. "It'll throw me."

He leaned back in the easy chair that was too small for him.

"I don't understand, Leo," he confessed. "Tell me about it."

"All right—if I must," I said. I had told him so often before. It was a bore to have to repeat what a man seemed incapable of understanding. "The operation is comparable to that of a burning-glass," I explained patiently, "which involves a point of light and transfers its powers through space to another position. Here"—I waved toward the mass of mechanism —"is a device that will involve an object and transfer, or rather, reproduce it to another epoch in time."

"I've tried to read Einstein at least enough to think of time as an extra dimension," ventured Astley. "But, still, I don't follow your reasoning. You can't exist in two places at once. That's impossible in the face of it. Yet from what I gather you can exist, you have existed, in two separate and distinct times. For instance, you're a grown man now, but when you were a baby—"

"That's the fourth dimension of it," I broke in. "The baby Leo Thrasher was, in a way, only the original tip of the fourth-dimensional me. At ten, I was a cross-section. Now I'm another, six feet tall, eighteen inches wide, eight inches thick—and quite some more years deep." I began to tinker with my lights. "Do you see now?"

"A little." Astley had produced his oldest and most odorous pipe. "You mean that this present manifestation of you is a single corridorlike object, reaching in time from the place of your birth—Chicago, wasn't it?—to here in Florence."

"That's something of the truth," I granted, my head deep in the great boxlike container that housed the electrical part of the machine. "I exist,

therefore, only once in time. But suppose this me is taken completely out of Twentieth Century existence—dematerialized, recreated in another epoch. That makes twice in time, doesn't it?"

AS I had many times before, I thrilled to the possibility. It was my father's fault, all this labor and dream. I had wanted to study art, had wanted to be a painter, and he had wanted me to be an engineer. But he could not direct my imagination. At the schools he selected, I found the wheels and belts and motors all singing to me a song both weird and compelling. The Machine Age was not enough of a wonder to me. I demanded of it other wonders—miracles.

"I've read Dunne's theory of corridors in time," Astley was musing. "And once I saw a play about them—by J. B. Priestly, wasn't it? What's your reaction to that stuff?"

"That's one of the things I hope to find out about," I told him. "Of course, I think that there's only the one corridor, and I'm going to travel down it—or duck out at one point, I mean, and reenter farther along. What I'd like to do would be to reappear in Florence of another age, Florence of the Renaissance."

Astley nodded. He preferred the French Gothic period, because of the swords and the ballads, but he understood my enthusiasm for Renaissance Italy—to me, the age and home of the greatest painters, poets, philosophers of all times.

"Then what?" he encouraged me, gaining interest.

"I'll paint a picture—a good one, I hope. A picture that will properly grace a chapel or church or gallery, a picture that will be kept for four centuries or more. Preferably it will be a mural, that cannot be plundered or destroyed without tearing down a whole important building. When it's finished, I'll come back to this time, to this hour almost. Of course, I'll have to build myself a new time-reflector where I am, because it will be impossible to take this one with me."

"And we'll go together to the chapel or church or gallery, and look at your

Leo Thrasher

work of art?" asked Astley. He lighted his pipe. "It will be your footprint in the sands of another time. Isn't that what you mean?"

"Exactly. Evidence that I've been twice in time." I sighed, with a feeling of rapture, because for a moment I fancied the adventure already accomplished. "If I'm not able to do a picture," I told him, "I'll make my mark—initials or a cross. Cut it in the plinth of a statue, scratch it on the boards at the back of the Mona Lisa or other paintings that I know will survive. It will be almost as good a proof." I smiled. "However, I daresay they'll let me paint. I have a gift that way."

"Perhaps because you're left-handed," Astley smiled at me through the blue smoke. "But one thing—in Renaissance Italy, won't your height and buttery hair be out of place?"

"Not among Fifteenth-Century Tuscans," I said confidently. "There were many with yellow hair and blue eyes. Look at the old Florentine portraits in any art gallery. Look at the streets of Florence today. Not all of those big tawny people are foreigners."

As I talked, I was reassembling my machinery that we had brought with great care from my native America to

this spot that I had long since chosen as the obvious place for my experiment. The apparatus took shape under my hands. The open framework, six feet high, as many feet long, and a yard wide, was of metal rods painstakingly milled to micrometric proportion in Germany.

At one end, on a succession of racks, were arranged my ray-generator, with its light bulbs, specially made with vanadium filaments in America. My cameralike device which concentrated the time-reflection power had been assembled from parts made by English, German and Swiss experts. And then there was the lens of alum with its housing, as big and heavy as a piece of water-main, which I now lifted carefully and clamped into place at the front of the camera.

ASTLEY stared, and drew on his pipe. It was plain enough that he looked tolerantly on all my labor as well as my talk, and that he believed the whole experiment was something of which I would quickly tire. Though he had been complaisant enough about coming with me and lending what aid he could to my secret experiment.

"That business you're setting up there looks like the kind of thing science fictionists write about," he said.

"It's exactly the kind of thing they write about," I assured him. "As a matter of fact, science fiction has given me plenty of inspiration, and more than a little information, while I've been making it. But this is practical and material, Astley, not imaginary."

He had not long to wait to witness the truth of that, though his phlegmatic nature could never have understood the tenseness that was making my nerves taut as a spring trap. I knew, however, that nerve strain was to be expected, for I was nearing the actuality of the experiment to which I had long given my heart and soul. I said nothing more, because now, within the tick of seconds I would *know* whether my dream could be a reality or if, in fact, that was all I had toiled and anguished for—a dream!

I am not sure—how could I be certain?—whether my hands were steady when the great moment came. I know vaguely that my hands did reach out—

I pressed a switch. At the other end of the framework there sprang into view a paper-thin sheet of misty vapor, like a piece of fabric stretched between the rectangle of rods.

I could be excused for the theatricality of my gesture.

"Behold the curtain!" I said. "When I concentrate my rays upon it, all is ready. I need only walk through." I stepped back. "Five minutes for it to warm up, and I'm off into the past."

I began to take off my clothes, folding them carefully; the tweed suit, the necktie of wine-colored silk.

"I can be reflected through time," I said with a touch of whimsicality, "but my new clothes must stay here." And more seriously: "I can't count on molecules to approximate them at the other end of the business."

"You can't count on molecules to approximate your body, either," challenged Astley.

I knew that he was not as stolid as he was trying to appear, for his pipe had gone out, and he was filling it, and I could see that his hands shook a trifle. He was beginning to wonder whether to take me seriously or not. Unimaginative Astley!

"All my diggings into old records at the *Biblioteca Nazionale*, yonder in town, have been to find those needed molecules," I told him. "Look at those notes on the table beside you."

He turned in his big arm-chair—it was none too big for him, at that—and picked up the jumble of papers that lay there. "You've written a date at the top of this one," he said as he shuffled them. "'April Thirtieth, Fourteen-seventy.' And below it you've jotted down something I don't follow: 'Mithraic ceremony — rain prayer—ox on altar'."

"Which sums up everything," I said, pulling off my shoes. "Right here—right at this inn, which I hunted up for the purpose of my experiment—a group of cultists gathered on April Thirtieth, Fourteen-seventy. Just four hundred and sixty-eight years ago today." I leaned over to look at

the time-gauge on my camera. "I'm set for that, exactly."

"Cultists?" repeated Astley, whom I knew from of old is apt to clamp mentally upon a single word that interests him. "What sort of cultists?"

"Contemporaries called them sorcerers and Satanists," I told him. "But probably they had some sort of hand-me-down paganism from old Roman days. Something like the worship of Mithras.* At any rate, they were sacrificing an ox on that day, trying to bring rain down on their vineyards. I have figured it out like this—if they needed rain, then that particular April thirtieth must have been bright and sunny, ideal for my reflection apparatus. They had an ox on the altar, and from its substance I can reassemble my own tissues to house my personality again. The original molecules have, of course, dissipated somewhere along the route of the process in time. Is that all clear?"

ASTLEY nodded slowly, and I stood up without a stitch of clothing. A pier-glass gave me back a tall pink image, lank but well muscled, crowned with ruffled hair of tawny gold.

"Well, old man," I said, with what nonchalance I could, through every nerve in me was tingling, "the machinery's humming. Here I step into the past."

My companion clamped his pipe between his teeth, but did not light it again. I could still see the disbelief in his eyes.

"I hope you know what you're about, and won't do yourself much damage with that thing," he grumbled. "Putting yourself into such a position isn't like experimenting with rats or guinea pigs, you know."

"I haven't experimented with rats or guinea pigs," I informed him, and stepped into the open framework.

I turned on another switch, and through the lens of alum flowed an icy-blue light, full of tiny flakes that did not warm my naked skin.

* Charles Godfrey Leland, in his important work, "Aradia; or the Gospel of the Witches of Italy," traces connections between witchcraft and the elder pagan faiths of Rome.

Mona Lisa

"As a matter of fact," I said in what I was sure was a parting message, "I've never experimented with anything. Astley, old boy, you are about to see the first operation of my time reflector upon any living organism."

Astley leaned forward, concern at last springing out all over his face.

"If anything happens," he protested quickly, "your family—"

"I have no family. All dead." With a lifted hand I forestalled what else he was going to say. "Goodbye, Astley. Tomorrow, at this time, have a fresh veal carcass, or a fat pig, brought here. That's for me to materialize myself back."

And I stepped two paces forward, into and through the misty veil.

At once I felt a helpless lightness, as though whisked off my feet by a great wave of the ocean. Glancing quickly behind me, momentarily I saw the room and all in it, but somehow vague and transparent—the fading image of the walls, the windows, my openwork reflector-apparatus, Astley starting to his feet from the armchair. Then all vanished into white light.

That white light beat upon me with an intensity that sickened. I tasted pungency, my fibres vibrated to a humming, bruising rhythm. There was a

moment of hot pain, deafening noise, and a glare of blinding radiance.

Then peace, lassitude. Something seemed to materialize as a support under my feet. Again I saw the transparent ghost of a scene, this time full of human figures. That, too, thickened, and I heard many voices, chattering excitedly. Then all was color, life, reality.

One voice dominated the others, speaking in resonant Italian: "The miracle has come!"

CHAPTER II

The First Half Hour

AT those words, all fell silent and gazed at me in awe. It seemed unbelievable, but all this was happening to me in the back yard of—yes, of Tomasulo's tavern. It was a changed back yard, though, dominated by a simpler, newer building.

I seemed to have trouble with my memory. It lagged, as though I had been stunned. And the differences helped to confuse me. Here were no flagstones, no clutter of innkeeper's jetsam—only a level stretch of turf, hedged around with some tall, close bushes of greenery. And my audience was grouped below rather than before me. I seemed to be standing high on a platform or pedestal of cut and mortared stone.

The altar of the ox-sacrificing cult! I had made the journey back through time, from the Twentieth Century that just now hung dim and veiled in my mind, like something I had known in childhood instead of brief seconds ago.

"Kneel," intoned the same voice that had hailed me as a miracle.

At once the group before me dropped humbly down. There were a dozen or so, of both sexes, and most of them shabbily dressed. The men wore drab or faded blouses and smocks, with patched hose on their legs, and the women were untidily tricked out in full skirts, bodices, and coifs or caps. Men and women alike wore long hair, and several were as blond as myself.

I was quite evidently taken for some strange manifestation of the god or spirit they worshipped. Realizing this, I felt that I had an advantage. I sprang lightly down from the altar.

"Do not be afraid," I told them, in my best Italian. "Rise up. Which is the chief among you?"

They came to their feet, in a shy group around me, and the tallest of them moved forward.

"I am master of this coven," he murmured, respectfully, but fixing me with shrewd, calculating eyes. "What is your will?"

"First, lend me that red cloak of yours."

He quickly unclasped it from about his throat. I draped it over my nakedness, and felt more assured before this mixed audience.

"Now," I continued, "hark you all! Did you worship here because you sought a miraculous gift from heaven?"

"Not from heaven, exactly," said the man who had given me his cloak.

He was the best clad of the entire group, wearing plum-colored hose and a black velvet surcoat that fell to his knees. His narrow waist—he was an inch taller than I, and as gaunt as a rake—was clasped by a leather belt with a round silver buckle. His sharp face was decorated by a pointed beard of foxy red, and above this jutted a fine-cut long nose. His eyes, so intent upon me, were large and deep, the wisest eyes I had ever seen, and his broad brow, from which the hair receded as though beginning to wear away, was high and domed.

There was something about him to suggest Shakespeare—Shakespeare's face, that is, much more alert and enigmatic than generally pictured, and set upon the body of Ichabod Crane. I describe him thus carefully because of the impression he made upon me then, and because of the importance he has since had in my life and career.

"Not from heaven," he said again. "Rather from our Father in the Lowest." He gestured downward, with a big but graceful hand. "Why do you ask? Have you not been sent by him?"

This was a definite challenge, and I made haste to simulate a grasp of the situation. With an effort I remembered the study I had made of this very incident, the prayer of a sorcerers' cult for rain, on April 30, 1470.

"I am sent as your friend," I announced. "This ox, which you have offered—"

I gestured behind me toward the altar, then turned to look. The stones were bare, save for a slight, dark moisture. I paused, thought quickly, and went on:

"This ox which you have offered has been transmuted into me, so that I may

Guaracco

be your friend and guest."

There was more truth in that than my interrogator in the velvet surcoat thought, I told myself triumphantly. But I did not know him yet. I also congratulated myself that there had been an entire ox, for my time reflector seemed to have left little of it after the process of reassembling.

"As to the rain," I finished, "that will come, doubt it not." For I had seen, on the horizon beyond the lowest stretch of hedge, a lifting bank of cloud.

"Thank you, O messenger!" breathed an elderly cultist at my side, and "Thank you, thank you!" came prayerfully from the others.

The lean spokesman bowed a little, but I could discern the hint of a growing mockery in those deep, brilliant eyes.

"Your visit is far more than we poor worshipers had the presumption to hope for," he said silkily. "Will you suffer these servants of the true belief to depart? And will you come with me to my poor dwelling yonder?"

I nodded permission, and he spoke briefly in dismissal of the others. They retired through a gap in the hedge, respectfully but without the awe a miracle might be thought to call forth. I was surprised, even a little piqued. Then the rationalization came to me. This was the Fifteenth Century, and the people were more naive, more credulous. They had come to this strange ceremony in expectation of a wonder. And when it came—even when there was more than they hoped for, as my volunteer host had suggested—it did not prostrate them with emotional amazement. I was strange, but I was understandable.

When the last had departed, I faced the gaunt man. I have compared his body to that of Ichabod Crane, but he was surer of his long limbs than the schoolmaster of Sleepy Hollow. Indeed, he seemed almost elegant, with his feet planted wide apart and one big hand bracketed upon his bony hip.

"How are you called?" I asked him.

"My name is Guaracco," he said readily. "The master, I say, of the coven which has just done worship here. But, if you are truly a messenger from him we delight to serve, why do you not know these things without my telling?"

A sneer was in his voice, and I felt that I had best establish my defenses.

"Ser Guaracco," I addressed him bleakly, "you will do well to show courtesy to me. I did not come here to be doubted."

"Assuredly you did not," he agreed, with a sort of triumphant good humor that yet made me uneasy. "And now, once more, will you come with me into my home?"

He made another of his graceful

gestures, this time toward the back door of the stone house that I knew for Tomasulo's inn—at least for what would one day be Tomasulo's inn. I nodded agreement, and we walked together across the turf to the door.

That thought of mine—for what would one day be Tomasulo's inn. . . . It behooved me to learn a new procession of thought, one that came two ways to the present. I must remember, not only from the past, but from that future, four centuries off.

I clarified the puzzle by calling to mind a fragment of conversation in "Through the Looking-Glass." It read like this, I remembered: "It's a poor sort of memory that only works backwards." The White Queen had said that and, later: "Sometimes I've believed as many as six impossible things before breakfast." I had never before realized the deep scientific philosophy of that delightful story. Meanwhile, it might help clear the fog that hung so persistently to some chambers of my mind.

My new acquaintance tapped softly on the door, which opened at once. Upon the threshhold stood a tiny male creature in a dark gownlike garment. He was no larger than a child of nine, and the bright face upturned to us might have seemed sweet if it had not reminded me of Guaracco's.

"Is this your son?" I asked my host.

He laughed quietly.

"Yes, Ambassador of the Powers Below. In some degree this is my son."

The little figure stood courteously aside, and let us step into a dark, narrow corridor. Guaracco's hand touched my arm through the folds of the borrowed cloak, and I allowed myself to be guided down the passageway and into a room beyond.

Here were dark, decent hangings, a thick carpet, chairs, a settee, and a table on which lay some bulky and ancient-looking books. A single fat candle in a bronze sconce illuminated the room, for there was no window; only a barred air-hole at the top. Guaracco invited me to sit down, with a sweep of his hand toward the settee.

"I will offer you refreshment," he announced, and clapped his hands.

From behind the hangings, evidently from a shadowed compartment beyond, darted a figure as small as the one that had admitted us to the house. But this one was hunched and misshapen, with a pinched, aged-looking face set in the loose, high collar of its gown. In its long, knob-knuckled hands was held a tray, with a silver flagon and two goblets of blue glass. This tray was set upon the table, then the small figure made a quick exit without looking back. I had been unable to judge sex or age in the brief moment of the small one's presence.

GUARACCO carefully poured red wine from the flagon.

"You do not ask," he commented smoothly, "if that was another of my sons."

I made no comment, for I could think of none. Instead of growing clear, my memory was becoming more scrambled, and it worried me. There was also a definite taste of menace in the atmosphere. Guaracco lifted one of the goblets and held it toward me.

"He was as much my son as the other," he said. "Take this wine, Ambassador. I daresay you will never drink another draught like it."

I took the goblet, and he lifted the other.

"I give you a toast," he said, in a voice that suddenly rang with fierce mockery. "Sir, your immediate transportation to the floor of hell—the very place from which you lyingly claim to be sent!"

It was too much. I rose quickly, and set down the goblet on the table. My left hand, with which I am quickest and handiest, doubled into a fist.

"Ser Guaracco," I said harshly, "I have had enough of your discourtesy. You doubt my being of another world, even though you saw me appear from the very substance of the ox upon the altar, so—"

"Enough of that falsehood," he interrupted.

Quickly but delicately he set his goblet down beside mine. Again he struck his palms together, twice.

From the entrance to the passage darted the pretty little keeper of the

doorway. From the opening behind the hangings sprang the withered-looking bringer of wine. Each held a long, thin blade, curved like a scimitar and plainly as keen as a razor. They closed quickly in upon me, their eyes glittering cruelly.

Guaracco laughed calmly, the laugh of one who makes the final move in a winning game.

"Before my familiars cut you into ounces," he said, "you had best make confession of your motives."

"Confession?" I echoed, amazed.

"Exactly. Oh, miracles have happened upon that altar before this—but it was I, Guaracco, who taxed my brain and my machine-shop to prepare them. But you come without my knowledge or leave. I do not allow rivals for my power, not even where it concerns those few foolish witch-worshippers. Out with your story, impostor, and at once!"

CHAPTER III

The Service of Guaracco

I CANNOT but be ashamed of the way I broke down. I might have faced out the surprise; I might have defied the danger. Together, they overwhelmed me. Then and there, with Guaracco leering at me through his red beard and the two dwarfs, who no longer seemed like little children, standing with swords ready to slash me to death, I told the truth, as briefly and simply as possible.

Guaracco heard me out, interrupting only to ask questions—most intelligent questions. When I had made an end, he nodded slowly and sagely.

"I know that you will refuse to believe—" I started to sum up, but he interrupted.

"But I do believe," he assured me, in a tone surprisingly gentle. "I believe, lad, and in part I understand. My understanding will be made perfect as we discuss things more fully."

He snapped his big fingers at the dwarfs. They lowered their swords, and with a jerk of his head he dismissed them through their respective doors. Immediately there was less menace in the atmosphere. I felt relieved, and thirsty. But when I put out my hand for the goblet, Guaracco moved more quickly than I, and spilled the wine out upon the carpet.

"That draught was poisoned," he informed me. "I meant to destroy you, as a spy or rival. But fill again, and we shall drink to our better understanding."

I poured wine, and we touched goblets and drank. His eyes above the brim were as knowing as Satan's own, and for the first time I was sure of their color—deep violet-blue, almost as dark as ripe grapes.

"This is better," I said, and smiled, but Guaracco did not smile back.

"Do not think," he returned, in a level tone of warning, "that I cannot kill you later, if such a course recommends itself to me. Those little entitites you saw, frail though they appear, are half-parcels of fate. They can handle their blades like bravos, they can scale the tallest towers or wriggle between the closest bars to deal death at my will. The skulls of their victims, destroyed in my service, would pave all the streets of Florence, yonder. Nor"—and his voice grew still colder—"are they my only weapons."

He stepped suddenly close, so that his proud, lean nose was within an inch of mine.

"In fact, your life could have been taken in two dozen ways between the yard and here, to say nothing of the poison and the steel I have seen fit to show you. Sit down, lad, and hear my plans for you."

I sat down, with an unheroic show of acquiescence. He felt himself my master, for his teeth flashed in a relishful grin.

"Hark you, I seek power," he told me. "Much power I have already. I wield it through the coven of deluded witches you have seen and others like them, through my spies and creatures in the guilds and companies and councils, and through my influence on many individual persons, base and noble, here and elsewhere. But I want

more power still. One day I shall not fear"—his narrow chest expanded a bit—"to give my orders to Lorenzo himself."

"Lorenzo *il Magnifico*—the Magnificent!" I murmured. "He rules in Florence, of course."

"Yes, he rules, prince in all but the name—for the nonce. His time, I dare predict, will be short." He strode across the room, hands behind his velvet back, then turned and stood over me. "Hark you, man from the future. Your world, what you tell me of it, is not so strange nor so great as I would have expected; yet you have many sciences and devices to show me. Machines, organization, foreknowledges of myriad kinds. For them I spare your life. You will be yet another of the chief agents in my service."

HE told me that with flat assurance, and I did not have the resolution to question his decision. All I could manage was something about my surprise that a sorcerer would be so interested in honest science.

"But sorcerers *are* scientists," he fairly snapped. "We offer our learning to the simple, and they gape as at a miracle of demons. For effect's sake, we mouth spells and flurry gestures, but the miracle is science, sane and practical. If I am a sorcerer, so was Albertus Magnus. So was Roger Bacon, the English monk who gave us gunpowder. Well, if I escape the noose or the stake, I may be as great as they. Greater."

As he spoke, I pondered how history was showing him wise and truthful. Magic always foreran science. From alchemy's hokus-pokus had risen the boons of chemistry, physics, and medicine, and the quibblings of astrologers had made astronomy a great and exact field of scientific study. Also, could not psychoanalysts look back to the ancient Chaldean magicians who interpreted Nebuchadnezzar's dreams?

But now I was dealing with things in the future from which I had stepped, things that *had happened* in that future. Again I attempted, and almost achieved, the feat of rationalizing the memory of things to come. If I could do it, I felt, the clouds would leave my mind.

"This traveling in time that you accomplished, it is of deep interest to me," Guaracco was continuing, pacing back and forth. "I feel that we may attempt it again, together. I would dearly love to see that world of which you speak, four centuries and more ahead of us. But these things are not more wonderful than others you mention. Tell me something about weapons of war."

Slowly, and vaguely, I ventured a description of the magazine rifle, then of the machine gun. My explanations were faulty and imperfect, yet he was deeply interested, and brought forth tablets and a red-leaded pencil with which to make sketches.

He drew crudely, and I took the pencil from him to improve his representations.

"By Mercurius, the god of thieves, you depict things well!" he praised me. "Your left hand is surer than my right. Perhaps you studied the arts? Yes? I thought so." He squinted at me knowingly, tweaking the point of his foxy beard. "I am inspired concerning you."

"How is that?" I asked.

"Tomorrow we go into the city of Florence," he decreed. "I shall introduce you there as a kinsman of mine, newly from the country, who seeks to enroll in the ancient and honorable guild of Florentine painters. I know a fitting teacher—Audreadel Verrocchio. I shall pay his fee to enter you in his *bottega* as a student."

"I am to serve you there?"

"Serve me there, or through there in other places. Verrocchio is well known and well liked. Lorenzo and the other great nobles patronize him. I have not yet a proper agent among the arts. You will suit nicely in that position."

Again I agreed, because there was nothing else to do. He chuckled in triumph, and actually patted my shoulred, saying that we would get along famously as adopted cousins. Then he led me to another room, in which were a bed and a cupboard.

"You will rest here tonight," he informed me. "Here"—he opened the

cupboard—"may be some clothing that will furnish you. We are of a height, you and I, and not too dissimilar in girth."

DESPITE Guaracco's confidence in this last matter, his hose stretched drum-tight upon my more muscular legs, and his doublet proved too narrow in shoulder and hip.

"We shall have that altered," he decided and, going to the door, raised his voice. "Lisa!"

"My lord?" replied a soft, apprehensive voice from another room.

"Come here at once, child, and bring your sewing tackle." He turned back to me. "You shall now see my greatest treasure, Ser—Leo, I think you called yourself? That is the name of the lion, and it matches well with that tawny mane of yours."

Into the doorway stepped a girl.

In her way, she was nearly as impressive to me as Guaracco had been. Not tall, of a full but fine figure and as graceful as a dancer, she paused on the threshhold as though timid at sight of a stranger. Her face was finely oval, with large, soft eyes of midnight blue and a shy, close-held little mouth that was so darkly red as to be purple. These spots of color glowed the more vividly because of the smooth ivory pallor of her skin.

Her hair was thick and sooty black, combed neatly straight under a coif as snug as a helmet. She wore a chemise of sober brown with a black bodice over it, and a black woollen skirt so full and long as to hide her feet.

In her thin, steady hands she held a flat iron box, the sewing kit Guaracco had commanded.

Have I described a beautiful woman?

She was that, and nobly modest as well. And so I call her impressive.

"Lisa, I present to you Ser Leo, a new servant of my will," said Guaracco to her. "He is to be of value to me, therefore be courteous to him. Begin by altering this doublet to his measure. Rip the seams here and here, and sew them again in a fuller manner."

He turned to address me.

"Ser Leo, this girl Lisa is for you a model of obedience and single-hearted helpfulness." He raked her with his eyes, not contemptuously, but with a dispassionate pride, as though she were a fine piece of furniture. "I bought her, my friend, of her beggarly parents, eighteen years gone. She was no more than six months old. I have been father and mother and teacher to her. She has known no other lord than myself, no other motive than mine."

The girl bowed her head, as if to hide her confusion at being thus lectured upon, and busied herself with scissors and needle. I pulled Guaracco's red cloak around my naked shoulders. My self-appointed master smiled a trifle.

"That flaming mantle becomes you well. Take it as a present from me. But to return to Lisa—I trust her as I trust few. She and the two imps you have seen are the closest to me of my unorthodox household. She cooks for me, sews for me, keeps this house for me. I, in turn, shelter and instruct her. Some day, if it will profit me greatly, I may let her go to a new master—some great lord who will thank me for a handsome, submissive present. She will cherish that great lord, and learn his secrets for me. Is that not so, Lisa?"

She bowed her head the lower, and the ivory of her cheeks showed pink, like the sky at the first touch of morning. I shared her embarrassment, but Guarracco chuckled quietly, and poured himself a half-goblet of wine. This he drank slowly, without inviting me to join him.

In a surprisingly short time, Lisa had finished broadening the doublet for me, and it fitted my torso like wax. Guaracco was moved to another of his suave compliments on the appearance I made.

AS evening was drawing near, the three of us took a meal. It was served in the hedged yard where Guaracco's dupes had prayed to infernal powers for rain. Whether by prayer or by coincidence, the rain did arrive not long after we had finished the bread, chicken and salad that Lisa set

before us. As the first drops fell, we went indoors and took wine and fresh peaches and honey by way of dessert, in a great front room that was luxuriously furnished with gilded couches, tables and tapestries.

After the supper, Guaracco conducted me to his workshop, a great flag-floored cellar.

Here was a bench, with lamps, retorts and labeled flasks for experimentation in chemistry, and in this branch of science I was to find my host—or captor—amazingly learned.

The greater part of the space, however, was filled with tools and odds and ends of machinery, both of wood and metal.

At Guaracco's command, I busied myself among these. But my strange memory-fault—I was beginning to think of it as partial amnesia—came to muddle me again. I could make only the most slovenly demonstrations, and when I sought to explain, I found myself failing wretchedly.

"You cannot be blamed for these vaguenesses," Guaracco said, almost comfortingly. "A drop backward through time, four hundred years and more, must of necessity shock one's sensibility. The most delicate tissues are, naturally, in the brain."

"I hope to recover my faculties later," I apologized. "Just now, I progress in generalities only."

"Even so, you are better grounded in these things than any man of this present age," he encouraged me. "Your talk of that astounding power, electricity, amazes me. Perhaps things can be harnessed with it. Steam, too. I think I can see in my mind's eye how it can be put to work, like wind in a sail or water flowing over a mill-wheel." His eyes brightened suddenly. "Wait, Ser Leo. I have an inspiration."

"Inspiration?" I echoed.

I watched while he opened a small casket on the bench and fetched out a little purselike bag of dark velvet. From this he tumbled a great rosy pearl the size of a hazelnut and glowing as with its own light. Upon his palm he caught it, and thrust it under my nose.

"Look!" he commanded, and I looked.

To be sure, it must be a valuable jewel, to be as full of rose-and-silver radiance as a sunset sky. It captivated my soul with the sudden impact of its beauty.

"Look," repeated Guaracco, and I gazed, as though my eyes were bound in their focus. The pearl grew bigger, brighter.

"Look," he said, yet again, as from a distance and, though I suspected at last his motive, I could not take my eyes away.

The light faded, consciousness dropped slackly from me like a garment. I knew a black silence, as of deep sleep, then a return to blurred awareness. I shook myself and yawned.

A chuckle sounded near by, and I opened my drowsy eyes to find Guaracco's foxy face close to mine.

"YOU are awake now?" he asked, with a false gentleness.

"How long did I sleep?" I asked, but he did not reply.

He polished the pearl upon his sleeve, and slid it carefully into its velvet bag.

"I think that some, if not all, of the forgotten things are buried in your mind," he observed. "With you I tried a certain way that fools call black magic."

Hypnotism, that was it. Guaracco had hypnotized me. Had he, in reality, found in my sub-conscious mind those technical matters that I seemed to have almost forgotten?

"Every minute of your company," he was continuing, "convinces me that I did well to spare your life and enlist you in my service. Now, draw for me again."

I obeyed, and he watched. Once again he praised me, and swore that I should be placed as a student with Andrea Verrocchio. It had grown late by now, and he escorted me to my bed chamber, bidding me goodnight in most cordial terms.

But, when the door closed behind him, I heard the key turn in the heavy bronze lock.

CHAPTER IV

Apprenticeship

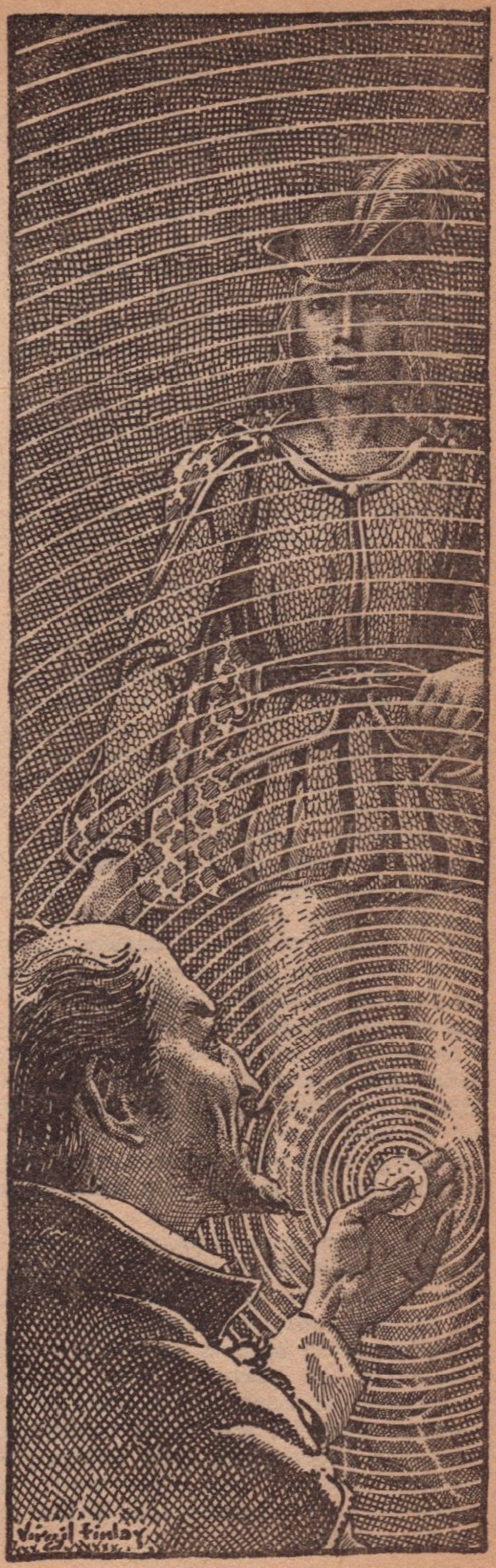
ON the following day fell the torrents of rain that had been prayed for in such occult fashion, and the trip to Florence was postponed. To my chagrin, my memories of various details that had been so clear during my Twentieth Century existence were even cloudier, so much more so that I spent the morning making notes of what little I remembered.

These notes Guaracco appropriated, with as cordial a speech of thanks as though I had done them expressly for him. I might have protested, but near at hand loitered the uglier of his two dwarfs, and there might have been even a greater danger at the window behind me, or hidden among the tapestry folds at my elbow.

So I gave over writing, and went to talk to Lisa, the sober but lovely young girl to whom he had introduced me the night before. I found her still shyly friendly, possessed of unfailing good manners and charm. She had needlework to do, and I sat talking and listening, fascinated by the play of her deft white fingers. While we were together I, at least, felt less the sense of being a prisoner and an underling.

But the rain had ceased by sunset, and early the next morning Guaracco knocked at my door to call out that we would go to Florence immediately after breakfast. We ate quickly, and went out into the fine early sunlight. Servants—Guaracco had several in a nearby cottage, peculiar fellows but deeply devoted to him — brought around horses, a fine white stallion for Guaracco and an ordinary bay for me. I mounted, being glad that I had not forgotten how to ride, and we cantered off along a clay-hardened highway, with a groom on a patient mule behind us.

We had not far to ride to Florence. I found the valley of the Arno much the same as I had known it in my for-



The pearl grew bigger and consciousness dropped from me like a garment (Chapter III)

mer existence, green and bounded by hills, sprinkled with villas, clusters of peasant huts, and suburbs, with the town in the middle.

Florence itself was smaller, newer, more beautiful. The town lay secure with high, battlemented walls of stone, with the river running through. I saw the swell of the Duomo, second cathedral of all Christendom, great and round and pale, like the moon descended to Earth; and around it, the towers of many white houses and palaces, and cool green of garden trees.

The gate we entered was perhaps twenty-five feet wide by fifteen high, and the tall lintel of gray-brown stone bore a bas-relief of St. Mark's lion, complete with wings and book; also several female figures which appeared to have tails.

Within the walls, the town I had known as grubbily ancient in the Twentieth Century, all shone new and fresh. By the clean whiteness of the houses and by their style of architecture, I judged that all, or nearly all, of the older Florence had been razed to allow this new Renaissance capital of the Medici its full glory.

The streets were for the most part smoothly paved, or at least had good gutters and cobbles. Some of them, the side ways, were too narrow, even for one-way traffic, and darkly close with the upper stories of the houses projecting. In many places these upper stories jutted out so far as to make a covered way for pedestrians at either side. Here and there stood the enclosed mansions and gardens of nobles or wealthy merchants, and at many crossings were wide squares, with, occasionally, the statue of a saint or a hero.

Many folk were afoot or on horseback, though there were few wains, and these of the most primitive. Most of the transport was done by donkey pannier, or in baskets on the brawny shoulders of porters. The people seemed prosperous, and in most cases happy. Later I was to be reminded that the Florentines then enjoyed a unique freedom, and were wont to boast about it to less favored Milanese or Venetians.

AT last, at Guaracco's signal, we reined our animals before a tall, barnlike structure of drab stone, fronting away from the brink of the green Arno. It was several stories high, pierced with many barred windows and furnished with a double door of iron grillwork.

"This is Verrocchio's *bottega,*" said my guide, and we dismounted, leaving our bridle-ends in the hands of the silent groom.

I moved toward the door, but Guaracco's big hand touched my elbow. I turned inquiringly.

"Before you enter here, I have a thought to burn into you," he said in a cold, hushed voice.

With his deep, penetrating eyes, his red beard and suddenly sinister face, he might have sat for a traditional portrait of Judas. I knew, more fiercely than ever, a dislike and distrust of him.

"You wish to exact a vow of fealty from me?" I suggested. "Vows begin, Ser Guaracco, only when hope is dead."

He shook his head, and under his beard his mouth wriggled, like a snake in singed grass.

"No," he replied. "I exact no vow. I say simply that if you betray me in word or deed, if you seek ever to hurt or to hinder me—if, in short, you do not adhere to the service I have set you I will see that you die by the foulest death ever invented."

"I am not afraid of you," I said to him, striving in my heart to make this the truth.

"Nor do I seek your fear," was his quick rejoinder. "Only your understanding. Shall we go in?"

The great front room of the academy was as large as a riding hall, with lofty, musty beams on the ceiling, and whitewashed walls; not as much light as one might wish to paint by, but with the windows all set toward clear, open ground. The corners of the room were cluttered with art materials, plaster molds, half-finished paintings on planks, broken chairs, pots of paint, sheafs of brushes, and rolled parchments and canvases.

Three or four young men in shabby

smocks stopped their various tasks to gaze curiously at me—students, I supposed them to be. And from behind a counterlike bench at the door, a man greeted Guaracco.

"Good-morrow, Ser Andrea," said my patron. "I said once that I would watch out for a likely pupil for you. Here is one—my own cousin, Leo."

The master of the *bottega* came from behind his bench. He was a spidery little fellow of forty or thereabouts, clad in a long gown of dark wool like a priest's, with ill-fitting, worn slippers on his flat feet. His face was beardless, white and puffy, and he wore spectacles low upon his snub nose. His hair, already gray, had begun to grow thin on top. His finest features were his big, wise eyes and his slender, delicate hands.*

Guaracco praised me highly and finally produced my drawings. Andrea Verrocchio carried them into the light and looked at them narrowly, with pursed lips. Finally he turned his spectacles upon me.

"You draw well, boy," he commented. "Drawing is the father of all the arts. Would you learn to paint?"

I told him, quite truthfully, that it was my ambition.

"If you study with me," he admonished, "you must work entirely as I devise."

"To devise is the work of the master," I said, respectfully. "To execute is the work of the apprentice."

"Well worded." He nodded, and smiled a trifle. "Come here—look at this picture."

HE beckoned us across the room. Against the rear wall hung a sizeable sheet of wood, held in place on a sort of scaffold with cords and pins. Upon this had been painted, but not finished, an oil of the baptism of Jesus. Some of the figures were executed with spirit and intelligence, but over one of them, a kneeling angel, I could not but shake my head.

"You see the fault," murmured Andrea Verrocchio beside me. "The draperies, Ser Leo, are not properly done."

"They are not, sir," I agreed, after a careful examination.

He smiled slowly. The students, too, had gathered with us. I had a sense of their critical suspicion. Perhaps they had worked at the thing, and failed.

"Peradventure, boy, you can better it," suggested Verrocchio, in a tone that was full of superior doubt.

"May I use these paints?" I inquired, stooping to some pots and brushes at the foot of the framework.

As I did so, I caught a glimpse of Guaracco's face, set in an easy smile. For all his strange, menacing nature he at least trusted my skill.

"Drapery is a science worth close study," I lectured the group, as I mixed some colors upon a rectangular palette board. "The part of the fold which is furthest from the ends where it is confined"—I pointed with my brush to the fringe of the angel's robe —"will return most closely to its original extended condition."

One of the students snickered at my words.

"Show us what you mean by these words," Verrocchio said.

"With your leave, I shall try to," I accepted his challenge, and began to dash on my paint. Here was another old skill that I had not lost. "Everything naturally desires to remain in its own state," I elaborated. "Drapery desires to lie flat. If it is caught into folds or pleats, thus,"—and I executed a crumpled crease upon the knee of the angel—"it is forced to quit this condition of flatness and obeys the law of this force in that part where it is most constrained."

I progressed to the hem.

"The part furthest away from such constraint," I went on, "you will find, returns most nearly to its original state—that is to say, lying extended and full."

"You say truth, Ser Leo, and you paint truth, too," Verrocchio commended warmly, and turned quickly to Guaracco. "Your kinsman stays here as my pupil and helper. Go forward with that drapery, young sir.

* This is the accepted description of Andrea Verrocchio, who was not only a painter and sculptor high in favor at court, but the teacher of some of the most distinguished artists and craftsmen of his time.

When you are finished, the picture can have no further improvement." *

I worked away, caring little for the jealous staring of my fellow students. Meanwhile, Guaracco's groom brought in a bundle of clothing for me, and Guaracco himself gave me a bag of clinking coins.

"I have paid the charge for your education, Cousin," he said to me. "Stay here, live and work here, and do me credit. Do not forget what I require from you, according to your recent conversations. I shall keep an eye and ear upon you. I may even take a house to be near you. Again I say, do not forget."

And with this equivocal farewell he strolled out, the very picture of a kindly and helpful kinsman.

So I became a pupil of Andrea Verrocchio, the finest teacher of arts in Florence. I made the acquaintance of my fellow students and found them not at all bad fellows, some indeed quite adept at their work. I had a cell-like room with pallet bed and table and chest of art materials. I listened dutifully to the precepts of our instructor, and under his tutelage did many kinds of work.

VERROCCHIO'S aptitude and taste was for sculpture, and though I thought this less intellectual than painting, for it cannot represent the transparent or yielding things, I did not rebel.

My first piece of finished work, a gold ornament for the King of Portugal, was called splendid by Verrocchio. He let me help him with the great bronze busts he was fashioning for the palace of the Medici, and let me do alone a series of ornamental shields of painted wood for a wealthy merchant.

In the evenings, and sometimes in the daytime when work was slack, I was permitted to go with my fellow students through the streets. I could never weary myself with the sights and sounds and smells of Florence.

I loved the pageantry of the main thoroughfares—laden beasts, processions of armed men going from one sentry post to another, occasional rich coaches of the great or wealthy, cavaliers on prancing horses, veiled ladies in mule-litters; rougher but still picturesque guildsmen, artisans, beggars, burghers; an occasional captain of mercenaries, a *condottiero,* slashed and swaggering, his long swordsheath hoisting up the hem of his mantel; criers loudly acclaiming their wares of fruit, fish, wine or what-not.

On the poorer, narrower streets there were hucksters and small tradesmen with baskets and trays; bevies of bright-eyed girls, on the lookout for romantic adventure. There were palaces to see in the wider spaces and the great sculptured bridges across the Arno. Too, there were pleasant, cheap taverns, where young men might get good wine and plenty for copper coins.

So it went for the month of May. Twice during that time, Guaracco called to talk to me, in honeyed protestations of concern over the welfare of his supposed cousin. But between the pleasant lines of his conversation my inner ear could distinguish the warning and insistence of his power over me.

Once he remarked that Lisa—"You remember our little Lisa!"—had sent me her warm regards. I found myself heartily grateful for that brief message from one who had treated me fairly and kindly.

The first of June dawned bright and sultry hot. I was up betimes, putting the last touches to an improvement on the scaffolding which served Verrocchio as an easel for extra large pictures. I fitted its cords to pulleys and winches so that the artist, instead of moving from one place to another, could hold a certain position with advantageous lights and viewpoints, while he lowered the picture itself, or lifted it or moved it from side to side at his will.

In the midst of my work, a boy came in from the street. He approached and said, very softly, that he had a message.

"A message?" I demanded, turning. "For whom?"

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* A painting that fits this description, and that might be the same, exists today in Florence. It is certain that the draperies of the kneeling angel are done more skilfully than those of the other figures.

The little fellow bowed. "For you, Ser Leo. I am ordered to conduct you to a place in the next street."

"How do you know my name?" I asked, and looked sharply at him. Then I saw that it was no boy, but the dwarf who had once opened Guaracco's door to me, and whom I had then mistaken for a handsome child.

"Come," he persisted, "you are awaited."

Turning from my work, I asked Verrocchio if I might be excused for a few moments. He glanced up from the bench where he and two other students were studying the plans of a chapel, and nodded his permission.

"Is it Guaracco who waits to see me?" I asked the dwarf as we emerged from the *bottega* into the sticky sunlight, but he smiled mysteriously and shook his little head.

WE walked along the street, my guide trotting in front, and turned a corner.

There, at the brink of the river, was a small dwelling house surrounded by a green garden.

"Go in, Ser Leo," the dwarf bade me, and ran around to the back with the nimble suddenness of a dog.

Left alone, I knocked at the door. There was no answer, and I pushed down the latch and went in.

I found myself in a cool, dark hall, paneled in wood. On a leather-cushioned sofa sat Lisa, the ward of Guaracco. Her feet were pressed close together under the hem of her wide skirt, and her hands were clasped in her lap. About her whole attitude there was an air of tense, embarrassed expectancy. She looked up as I came in, and then quickly dropped her gaze, making no answer to my surprised greeting.

As I came farther into the room, approaching the girl, a pale oblong caught my eye—a folded paper, lying on a little round center table. Upon it were written three large letters:

LEO

"Is this for me?" I asked Lisa, who only bowed her head the lower. I began to catch something of her embarrassment. "Your pardon for a moment," I requested, and opened the paper.

The letter was brief and to the point. It read:

My dear Adopted Kinsman:

You have thus far pleased me much, and I have high hopes of great advantage from your acquaintance and endeavor. It occurs to me to make you a present.

In the short time you were my guest, you saw my ward, Lisa. She likes you, and you are not averse to her society. Take her, therefore, and I wish you joy of each other.

From

Guaracco.

[*Turn page*]

CHAPTER V

The Gift of Guaracco

THE first sentence of the letter astonished me beyond measure. The last had two effects, overwhelming and sudden in succession, like the two reports of a great double barreled gun.

For my primary impulse was to rejoice, to be glad and thankful. Why had I never realized that I loved Lisa? Thinking of her now—how could I help but love her? But my second reaction was one of horrified knowledge of what Guaracco meant by such a gift.

"Lisa, fair mistress," I said, "this letter—you know what it says?"

She nodded, and the living rose touched her ivory skin.

"It cannot be," I told her soberly.

"Cannot?" she repeated, no louder than a sigh. It might have been a protest, it might have been an agreement.

I overcame an impulse to fall on one knee before her, like any melodramatic courtier of that unrestrained age and land.

"Lisa," I said again, desperately choosing my words, "first of all, let me say that I am deeply moved by the mere thought of winning you. Guaracco appears to mean what he says, and you appear to be ready to consent." Watching her, I saw the trembling of her lips. "But I cannot take you at his hands, Lisa."

At last she looked me full in the face. She, too, began to comprehend.

"That subtle wizard, Guaracco," I went on, growing warm to the outrage he would wreak, "tries to rule us both by fear. He sees that he is not successful. We yield slowly, biding our time, for orders are orders until there comes strength for disobedience. And so he seeks to rule us by happiness. Confess it, Lisa. For a moment you, too, would have wanted love between us!"

She gave me her sweet little smile, with unparted lips, but shyness had covered her again and she did not answer me.

"We cannot, Lisa," I said earnestly. "It might be sweet, and for me at least, it would be the easiest course in the world. But Guaracco's touch upon our love—heaven forefend that we be obligated to him!"

"Eloquently said, Leo, my kinsman!"

It was the voice of Guaracco. I spun quickly around, ready to strike out at him. But he was not there. Only his laughter, like the whinnying of a very cunning and wicked horse was there, coming from the empty air of the room.

"Do not strive against nothingness, young hero," his words admonished me out of nowhere, "and do not anguish me by spurning my poor, tender ward. She loves you, Leo, and you have just shown that you love her."

Such words made it impossible for me to look at Lisa, and therefore I looked the harder for Guaracco. In the midst of his mockery, I located the direction of the sound. He spoke from the room's very center, and I moved in that direction.

At once he fell silent, but I had come to a pause at the point where the final syllable still echoed, almost in my ear. I glared around me, down, and upward.

A cluster of lamps hung just above my head, held by several twisted cords to the ceiling. Among the cupped sconces I spied what I suspected—a little open cone of metal, like a funnel. I am afraid that I swore aloud, even in Lisa's presence, when I saw and knew the fashion of Guaracco's ghostly speaking. But I also acted. With a single lunge and grasp I was upon the lamps, and pulled with all my strength.

THEY came away and fell crashing, but not they alone. For with them came a copper tube that had been suspended from cords and concealed there. I tore it from its place in the ceiling. Beyond that ceiling, I knew, went another tube that went to the lips of Guaracco, in hiding. I cast the double handful of lamps upon the planks of the floor.

Once again Guaracco laughed, but this time from behind me in the room

itself. Again I turned. A panel of the woodwork had swung outward, and the man himself stepped through, all black velvet and flaming beard and sneering smile.

"You are a quick one," he remarked. "I have fooled many a wise old grandfather with that trick."

I gathered myself to spring.

"Now nay, Leo," he warned me quickly. "Do nothing violent, nothing that you would not have set down as your last act on earth." His hand lifted, and in it was leveled a pistol, massively but knowingly made. I stared for a moment, forgetting my rage and protest at his villainous matchmaking. Surely pistols were not invented so early. . . .

"It is of my own manufacture," he informed me, as though he read my mind. "Though short, it throws a ball as hard and as deep as the longest arquebus in Christendom. Do not force me to shoot you, Kinsman." His lips writhed scornfully over the irony of our pretended relationship.

"Shoot if you will," I bade him. "I have said to Lisa, and I also say to you, that I shall not be led by love into your deeper hateful service."

He shook his rufous head with a great show of melancholy.

"Alas, young Cousin! You do great and undeserved wrong to Lisa and to me. Only this morning she was disposed to thank me for the thought, to scan by way of rehearsal the marriage service. . . . Ah, I have it!" He laughed aloud. "You do not think that a poor art student like yourself can support a wife and household." He held out his free hand, as warmly smiling as any indulgent father. "Take no further thought of it. I myself shall provide a suitable dowry for the bride."

Even poor wretched Lisa exclaimed in disgust at his evil humor, and I started forward suddenly, coming so close to Guaracco that I found the hard muzzle of his pistol digging into the pit of my stomach.

"Back," he commanded, with quiet menace. "Back, I say, at once. . . . That is better. What fantastic objection have you to raise this time?"

"You add money to beauty and love in the effort to buy me!" I cried in new disgust. "Dowry! A bribe to marriage! Oh, you are infamous! Surely we are living in the last days of the world!" I flung wide my arms, as though in invitation of a shot. "Kill me, Guarracco! You said once that you would kill me if I disobeyed you. Well, I disobey, and with my last breath I do name you a sorry scoundrel!"

He shook his head, and moved back.

"No," he demurred gently. "Perhaps, after all, the fault was mine. I was too abrupt for your dainty nature, Leo." He turned his eyes, but not his head, toward the unhappy Lisa where she sat in mute and woeful confusion. "Forgive this ungallant fellow my child. Perhaps another time—"

"There shall be no other time," I said flatly. "I refuse, once and for all."

"Then go," Guaracco bade me, and he simulated a bored yawn. "You have disappointed me, and shamed Lisa. Return to your labors among the arts, and when your heart is cooler we shall talk again. Go."

I WENT, and my nature was more fiery hot than the waxing sun overhead.

Guaracco had spoken this much truth. I had brought shame to Lisa. Apparently she had been ready to accept me as a mate, and whether this was at Guaracco's hypnotic suggestion or not made little difference in the way my reaction must have affected her. She had come to meet me, hoping to hear my praises and pledges, to stand with me before a priest.

Undoubtedly she understood my refusal to be her lover, but could I not have been more kindly toward her? Could I not have said, parenthetically, that it was in reality Guaracco I refused, and that on some happier occasion—like many a man leaving a stormy scene, I was aware of fully a score of things I should have said and done.

I was also aware that I loved Lisa. No getting away from that, even when

I tried to say that it was all Guaracco's adroit suggestion, that he may have hypnotized me as well as Lisa, from the first day he had introduced us to each other.

Conjectures about it were only the more disturbing. Finally, I gave up the struggle against my new realization. I loved Lisa, and probably I had lost her. There was nothing I could do about it, I told myself as I drew near to the *bottega*, turned my footsteps to enter at the door.

A final glow of rage swelled all through me. I yearned wildly for an opportunity to catch Guaracco off guard, to strike and throttle him. A mood, rare in me, made my heart and body thirst for violent action.

As Fate would have it, violent action was about to be provided for my needs.

A horseman came cantering along the street. His horse, a handsome gray, spurned a loose stone from its place among the cobbles. Another moment, and the beast had stumbled and fallen, throwing its rider headlong.

A crowd of strolling pedestrians within view of the mishap all hurried close, myself among them. My hand went out to lift the sprawling man, but with a grunt and an oath he had scrambled to his feet and was tugging at the bridle of his horse. It would not rise.

"The beast is hurt," I suggested.

"Not this *devil-begotten nag*," growled the rider. He dragged on the bridle again, then kicked the animal's gray ribs with his sharp-toed boot.

Harshness to animals has never pleased me and, as I have said, my anger was ready to rise at anything. I shouted in immediate and strong protest. The man turned upon me. He was tall and sturdy, with a forked black beard and two square front teeth showing under a short upper lip. He wore a long sword under his cloak of brown silk, and had the look of a tough customer.

"Do not meddle between me and my horseflesh," he snapped, and once more heaved at the bridle.

The injured horse struggled up at last, driving the little crowd back on all sides, and the master laughed shortly.

"Did I not say he was unhurt? Belly of Bacchus, it was his careless foot that threw us—curse it and him!"

He clutched the bit of the poor beast, and struck it across the face with his riding whip.

"Stop that!" I shouted, and caught his arm. He tried to pull loose, but I was as strong as he. A moment later he had released the horse, which a passerby seized by the reins, and cut at me with the whip. My left hand lashed out, as quick as impulse. It smote solidly on those two front teeth, and the man-at-arms staggered back with a roar.

I would have struck again, perhaps stretching him on the cobbles, had not Andrea Verrocchio himself, running from his door, thrown his arms around me. Meanwhile, the black-bearded man had whipped out his sword and, swearing in a blood-curdling manner, was struggling to throw off two voluble peacemakers and get at me.

"Have you gone mad, boy?" Verrocchio panted in my ear. "That is Gido, the first swordsman of Lorenzo's palace guard!"

CHAPTER VI

Swords Beside the River

WHEN I say that I did not flinch at Verrocchio's warning, I do not call myself brave—only possessed by a white heat of anger. For a moment I made as if to rush fairly upon the point of Gido's sword; but a saving ounce of wit returned to me.

My eye caught a gleam at the hip of one of the growing throng of watchers. I made a long leaping stride at the fellow, and before he knew I was there I had clutched and plucked away his long, straight blade.

"Thank you, friend," I said to him hastily. "I will return this steel when I have settled accounts with Ser Gido the ruffler."

Gido was roaring like a profane bull. He cursed me by every holy Christian

"Fight, you knave!" I taunted, as my blade pressed against him (Chapter VI)

name, and some that smacked of the classic Greek and Roman. But by now I had recovered my own self-possession, enough to make me recognize my danger and face it. I thrust away Verrocchio's pleading hands, and interrupted Gido in the middle of a sulphurous rodomontade.

"You talk too loudly for a fighting man," I told him. "Come, I am no wretched horse or weaponless burgher. Let him go, you good people. He needs blood-letting to ease his hot temper."

"There shall be blood-letting enough and to spare!" the palace guardsman promised me balefully.

Verrocchio pleaded that there be no brawl outside his house, but Gido loudly claimed that there must be a back courtyard where we could have quiet for our work. And, with the crowd clamoring and pushing after us, to that back courtyard we went, through a little gate at the side of the *bottega*.

There was a level space flagged with stones, at the grassy brink of the Arno. All the spectators jammed close to the walls of the house and its paling at the sides, while my adversary and myself stood free near the water.

Gido gave me a quick, businesslike scrutiny that had something in it of relish—the sort of gaze that a carver might bestow upon a roast. With a

quick flirt of his left arm, he wound his brown cloak around his elbow, to serve as buckler.

"I will teach you to defy your betters, Master Paint-smearer!" he promised.

"Teach on!" I urged him. "I may be a good enough pupil to outshine my teacher."

All this time I was telling myself to be calm, ruthless and wide-awake, and that I must not fear the raw point. I had done some fencing in prep school and at my university, and it was another thing that I remembered fairly well, with my hand if not my head. I felt that I had a certain advantage, too, in being left-handed.

We moved toward each other by common consent gingerly taking the stylized paper-doll pose of fencers. As my left hand advanced my sword, Gido saw that he would have trouble shielding himself with that wadded cloak.

"Fortune favors the right," he muttered, and his square front teeth gleamed with pleasure at his own pun.

For answer I made a quick, simple attack. It was no more than a feeling thrust, and he swept it aside with an easy shifting of his straight blade. At once I made a recovery, ready to parry his riposte.

The riposte did not come. Instead, this crack swordsman of the Medici tried to beat down my weapon and so clear the way for a stab at my breast. I yielded a little before his pressure, disengaged, parried in turn, and dropped back. Another of his slashing assaults I only half-broke with my edge, and felt the delicate sting of his edge upon my left forearm.

"First blood!" yelled one of the watchers, and a little cheer went up for my enemy. The Florentines were enjoying the sport.

BUT I was not injured, so far as my activity was concerned. As Gido rushed to follow his advantage, I was able to parry cleanly. Immediately, while he was yet extended in his forward lunge and well within reach, I sped my riposte. It caught him unprepared, and he barely flung up his cloak-swaddled left arm in time. Through half a dozen thicknesses of brown cloth my edge bit its way, and Gido swore as his blood sprang out to dye the fabric a deep red.

"He who bleeds last bleeds longest," I paraphrased, and made a sweeping slash on my own account.

Gido had to spring all the way back to escape, and upon his face had dawned an expression of perplexed concern.

Was this the best swordsman that the Medici could send against a raw student of the arts? I felt a little perplexity on my own account. Gido had the look and, with Verrocchio at least, the reputation of a seasoned fighter. Yet he was doing no more than enough to hold his own against my sword. He had missed a chance to riposte at my first attack, a moment later he had been foolishly open to my own riposte.

As our blades grated together again, I found the answer in my own semi-obscured memory. Riposte, that was it—or, rather, the lack of riposte. The movement, the counter-attack made when your opponent's thrust has been parried and he has not yet recovered, is in great measure instinctive. But in these Renaissance times it was not rationalized, was not yet made a definite pseudo-reflex of sword-play.* I, knowing the formal science of it, had a great advantage. I could win by it.

"Fight, you knave!" I taunted Gido, as my steel pressed against his. "I'll cut you into flitches like a pig."

Again he thrust wildly in his angry terror, and again I warded. And, with a quick straightening of my arm, I touched him before he could recover. My point snagged his bearded cheek, and a thread of gore showed. This time the onlookers cheered for me.

Gido retreated once more, two paces this time. His face frankly showed terror.

"He is a devil," he choked out. "He knows a secret thrust. Unfair!"

"I will show you my secret, drive it to your heart," I growled back, pressing forward after him. "Fight, man, or I will butcher you!"

He tried for a moment to oppose

* No scientific treatment of the riposte in swordplay is to be found in any manual of the exercise before the late Seventeenth Century.

me, then fled again from my menacing point. Now that his nerve was gone, he could barely hold up his sword.

"I cannot stand against you," he mumbled wretchedly

"Show him mercy," called Verrocchio to me, and I half lowered my weapon.

Gido saw, and struck. Only a quick recovery of my guard saved my life. I roared wordlessly, and sprang upon him. My first sweeping slash he parried, the second almost cut away his left arm. He staggered back and tried unsuccessfully to hold off my long point thrust, but I got home deep between his ribs. Pulling away, he ran, like a boy caught stealing fruit, and I after him.

He gained the gate that led to the street, leaning for a moment upon it. Half a dozen of the onlookers rushed to bar my way, pleading that I was already the winner, but my rage was up again. I struggled through their arms and after Gido.

He had gone through the gate, fallen through it. As I came into the street, with the throng at my heels, I almost trod upon my adversary. He lay sprawled across the curb and into the gutter, his sword under him, blood gushing from his mouth and drenching his black beard. He had only life enough to grope in his pierced bosom, pull forth a crucifix of silver, and try to kiss it.

THE fight and the fury went out of me as I watched him die, for it was the first violent death I had ever witnessed. I looked around at the staring, scared faces, and saw among them that of the man whose sword I had snatched.

"Take back your weapon," I said to him, but he drew fearfully away from me.

Hoofs were thundering on the cobblestones. The knot of people pressed back to the front of the *bottega,* and let a little cloud of horsemen approach. A voice shouted commandingly, and there was a quick, orderly dismounting. One of the armored men stopped to gaze at the body.

"Gido!" he grunted. "And slain!"

"What?" demanded a voice from behind. "Gido, you say? Who slew him?"

Two men, richly dressed, had remained upon their superb horses. One of them reined in almost above me. He was a handsome dark youngster, no older than I, with abundant curls descending from under his plumed velvet coat to the shoulders of his plum-colored *houppelande,* or gown-like outer garment. His belt, gloves and boots were embroidered with massy gold. He stared at the body of Gido, at me, and at the bloody sword I still held.

It was the other, sitting his steed just beyond, who had spoken. He was also young, tall and rugged, with harpies blazoned richly upon the breast of his surcoat. His strong face, framed between sweeps of straight black hair, had broad, fiercely ugly features. Above the right corner of his mouth grew a wart. To me his appearance suggested something of my former life—a painting or statue.

"Gido," he said again. "My own peerless Gido—slain!"

Here upon me had ridden Lorenzo the Magnificent, absolute ruler of the city of Florence!*

And now, the eyes of this great despot, prince in all but name, had fastened upon me. Bright, deadly intent flared from them, like fire from black flint.

"Is that the assassin?" he demanded. "Seize him, some of you."

I turned toward him.

"I am no assassin, Your Magnificence," I protested. "It was a fair fight, and this guardsman of yours forced—"

But as I began to speak, two of the men in mail and leather moved swiftly to my right elbow and my left. The iron gauntlet of one snatched away my sword, and the other man roughly caught my shoulder.

"Silence!" he growled in my ear. "Speak when you are spoken to."

Others of the party were busy questioning witnesses, who were many and

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* Lorenzo de Medici, who ruled with his brother Giuliano in Florence since 1469, was the true founder of Florentine greatness, and was a most benevolent despot until his death in 1492.

unfriendly. Lorenzo de Medici, after favoring me with another long, searching look, turned away.

"Bring that fellow," he ordered my captors.

"Can you ride?" I was asked, and when I nodded, the gray horse of Gido, the same over which we had quarrelled, was led forward. I mounted, and one of the men-at-arms caught the bridle reins in the crook of his arm. The other sidled his horse against me.

"Come," he said, "you are going to prison. If you try to escape, if you but move as though to leave us"—his voice grew harder still—" my sword will shed your tripes upon the street."

CHAPTER VII

Lorenzo the Magnificent

LORENZO and his handsome companion had ridden on. Behind him rode his retinue, one of them with Gido's limp body across his saddlebow. I myself, on the gray, with the two guards, brought up the rear.

As we departed, I glanced back at the *bottega*. The crowd was moving and murmuring, and in its midst stood Andrea Verrocchio, staring after me through his spectacles.

We had not ridden much more than two miles, and had made few turns, before our little procession entered a great paved yard before a white stone palace. A groom appeared to lead away the horses of Lorenzo and his companion, while the soldiers rode around to a guard-house at the rear, leading me with them.

Through a small barred door, I was ushered into the palace building, then through a hallway in which stood a sentry in breastplate and steel cap. Finally I was escorted into a small room, finished in great rough stones and with a single iron-latticed window. It had one stool, no carpet and no table.

"Await here your punishment," one of my captors bade me, and I was locked in.

I waited. There was nothing to do but think, and nothing to think but doleful thoughts. My victory over the bully swordsman, mingled as it was of luck and knowledge from another century, had brought me not fame but disaster. Lorenzo de Medici himself had seen fit to notice me, and with anger. I knew well that this scion of a great and unscrupulous race had the power of life and death in Florence, and that in my case the power of death was more apt to be exercised than the power of life.

To be sure, I had been drawn on first, had fought only in self-defense. But what judge would hear me? Lorenzo, who through me had lost a valued servant. What jury would ponder my case? No jury. I might not be allowed to speak in my own defense, even. A nod, a word, and I would be condemned to death, with nobody to question or to mourn.

Nobody? What about Lisa? But I had to put her from my mind.

Thus I mused, in the blackest of humors, until a faint stirring sound at the window made me lift my eyes. A small, childlike face hung there—the face of the deceptively handsome dwarf of Guaracco.

He cautioned me to silence with a tiny finger on his lips, then, with the utmost suppleness and skill, thrust his wisp of a body between the iron bars. How even so small a creature could do it, I have no idea; but in two seconds he stood in front of me, smoothing out the wrinkles of his little surcoat.

"What do you here?" I demanded.

"It was easy," he chuckled. "By a vine I swung from the street and over the wall. In a tuft of brambles I lurked, until the sentry walked by. I am here with a message from Ser Guaracco, your master and mine."

"Well?" I prompted, a faint hope wakening in me. Guaracco had claimed some influence. Perhaps he was bestirring himself on my behalf.

"The message," said the dwarf, "is this: Hanging is an easy death and a swift."

"Hanging?" I echoed. "I am to be hanged?"

"Perhaps." The little head wagged wisely. "That is the punishment for

brawlers, and killers in hot blood. But there are other punishments." He smiled up impudently. "A witch, a devil's apostle, for instance, may be burned at the stake. By comparison, a sorry end."

I grew ironic myself. "Your riddles become easy to read, imp," I said. "Ser Guaracco is anxious that I make no claims of coming to him miraculously —that I say nothing of being nourished and ordered to assist him in his intrigues."

"They breed quick minds where you come from," said the dwarf.

"Go back," I told him. "Back, and say that I know his selfish reason, but that his advice is good. I will not involve him in my ruin. Better to hang than to burn."

THE little fellow nodded quickly, turned and wriggled out between the bars like a lizard.

Time wore on, and I felt weary and hungry. Finally, pushing my stool back so that I could lean in the corner, I dozed off. A rough voice awakened me.

"God's wounds, knave, you do slumber at the very lip of death! Rise and come with me. Lorenzo the Magnificent has sent for you."

I got to my feet and rubbed my eyes. Night had come, and I walked out of my dark cell toward the light held at the open door. Two men in steel-mounted leather waited, a bristle-bearded captain and a lanky swordsman with a scarred cheek.

Between them I walked away into a long hall, around a corner, across an open courtyard—it was a clear, starry night overhead—and into a building beyond. A sentry challenged us in the arras-hung vestibule we entered. At an explanatory word from the bearded captain, he waved us on through a curtained doorway.

The room in which we came to a halt was not spacious, but lofty, and lighted by no less than eight lamps on tables and brackets, or hung by chains from the groined ceiling. The walls were frescoed with scenes and figures of Grecian mythology, and the floor was richly carpeted.

At a table of polished ebony with inlaid borders and figures of ivory, sat Lorenzo de Medici, in a magnificent dove-gray *houppelande* with furred neck and wrists. His ugly face was toward us. Beside him was stationed a scribe or secretary, in the hooded gown of a monk, busy with pen and ink.

But, standing before the table with back toward us, was a long, spare man with a red pate. He could be none but Guaracco. And he was speaking as we entered, in the gentle, plausible manner he could affect so well.

"Magnificence," he was saying smoothly, "if to be related to the young man is a crime, I must plead guilty. It is true that I arranged for his education, as Ser Andrea Verrocchio testified before you just now. But concerning this butchery of your poor servant, I must say that I have no reaction save surprise and sorrow."

He was clearing his skirts of me then.

Lorenzo leaned back in his chair of state. It was a square-made armchair of massive carved wood.

"I wonder, I wonder," the ruler of Florence almost crooned. His eyes probed Guaracco like sharp points, and if anything could unsettle the sorcerer-scientist's aplomb, it would be such a regard. "It is possible," continued Lorenzo, "that you assigned him to the task of murdering Gido? But here is the young man himself. His story may be revealing."

The captain who had brought me now thrust me forward with a push of thick knuckles in my back. Lorenzo's eyes met mine, and I returned him as level a stare as possible.

"Stand aside, Guaracco," commanded Lorenzo. "Now, young man, your name?"

"Leo Thrasher," I replied.

"Leo—what?"

And Lorenzo shook his head over my surname, which all Italians have found difficult. The clerk, pen in hand, asked me how to spell it.

"A barbarous cognomen, which bespeaks the barbarous fellow," remarked Lorenzo sententiously. "What defense have you to offer?"

"Only that I did not murder your guardsman, but killed him in a fair fight," I made respectful reply.

GUARACCO, standing against the wall, gave me a little nod of approval and drew in his lips, as though to council prudence.

Lorenzo turned and took several sheets of writing from his monkish companion.

"According to the testimony of others, you were the aggressor," said he. "You interfered, and struck him after he had fallen from his horse."

"He flogged the beast cruelly," I protested. "I used my bare fist upon him, and he drew his sword. I say, I but defended myself."

"Do not contradict His Magnificence," the middle-aged clerk cautioned me bleakly.

"And do not traduce the name of poor dead Gido," added Lorenzo. His eyes still raked me. "I have lost a good servant in him."

"Perhaps," I said, on sudden inspiration, "I can make good his loss."

"How?" exclaimed Lorenzo, and his black eyes narrowed. "As a swordsman in my guard? But Gido had conquered hundreds."

"I conquered Gido," I reminded him, despite the fact that Guaracco was signaling again for prudence. Lorenzo saw those signals, and turned in his chair.

"Ha, Guaracco, by the bones of the saints! I do begin to understand it. You'll have planned that this creature of yours might rise on the dead shoulders of his victim, and be taken into my service as an invincible blade. Then, being near me, and myself unguarded—"

"As heaven is my judge, this is not my doing!" exclaimed Guaracco, unstrung at last.

I spoke again, to save myself and him, too.

"If I cannot be trusted to guard Your Magnificence, I have other worthy gifts." I thought a moment, marshaling what latter-day science my memory still retained. "I can build bridges. I can make war machines of various kinds. I can show you how to destroy fortresses—"

"Indeed?" broke in Lorenzo. "How came you by all this knowledge? More of Guaracco's doing, I make no doubt. He is whispered to be a sorcerer." Another of his darted sidelong looks made the tall man shake violently. "You, too, young man? Death is the severe penalty for black magic."

I recognized defeat, and shrugged my shoulders in exasperation.

"I shall not weary you with further pleas, Your Magnificence," I said. "Call me wizard as well as murderer. I am neither, but you are determined to destroy me. As well be hanged for a sheep as for a lamb."

The captain at my elbow made a motion as though to drag me away, but Lorenzo lifted one long, white hand, with a many-jeweled ring upon the forefinger.

"Wait! Tell me—what was that you said?"

"I said, as well be hanged for a sheep as for a lamb."

"Hanged for a sheep as for a—" A grin came, slowly, as if it did not well know the way to that rugged face. It made Lorenzo strangely handsome. "Neatly said, by Bacchus!" He spoke to the clerk. "Write that down. Here we have one gift that was never won from yonder dull Guaracco."

I was stunned at the zest with which he repeated the cliché.

"Why, Your Magnificence!" I said, wonderingly. "It is but a saying, a handful of old words."

"Yet the thought is new, a new thing under the sun. Say on, Leo the Witty. If you are an assassin set to kill me, your tongue is as tempered as your sword."

HE called the phrase new and, of course, it was. The Fifteenth Century had never heard it before. Every cliché must have been devastating in its time.

I groped in my mind for another, and the works of William Shakespeare, a good century in the future, came to my rescue.

"Since I am graciously permitted to plead my case once more," I said, "let

I spread and beat the wings—the ground seemed a long way off (Chapter X)

me but remind Your Magnificence that the quality of mercy is not strained; it drops as the gentle rain from heaven upon the earth beneath—"

"Excellent!" applauded Lorenzo. "Clerk, have you written it all?" He smiled upon me the more widely and winningly. "You go free, young sir. Swordsmen I can buy at a ducat a dozen, but men of good wit and ready tongue are scarce in these decayed times. Tomorrow, then, you shall have a further audience with me."

I BOWED myself away, scarce crediting my good fortune. But, as I walked down the palace steps and through the gate, Guaracco fell into step beside me. Under his half-draped black cloak I caught the outline of that pistol he had invented.

"I have nothing to say to you," I growled. "I have washed my hands of you. And you washed your hands of me yonder, when my life hung by a thread."

"I never pledged myself to you," he reminded, "nor did I demand a pledge of you—only obedience. Instead of death, you win favor from the Medici. When you go back tomorrow, you go under new orders from me."

And thus I was deeper than ever in his strong, wicked clutch.

CHAPTER VIII

The Court of Lorenzo

PERHAPS it is odd, and yet not so odd, that I remember no more of that particular walk, of my warm disgust at Guaracco's confident leer, of his insistence on my aid to him. It is my fixed belief that, during our conversation, he found and took the opportunity to throw upon me his hypnotic spell. He could do that almost as well as the best Twentieth-century psychologists.

Walking together thus on the way to Verrocchio's *bottega*, I entranced and somnambulistic, he alert and studied, there must have been strong talking by Guaracco and receptive listening by me. He must have planted in my dream-bound mind that I was his friend and debtor, that I must share Lorenzo's favor with him, Guaracco.

What I do remember is the next afternoon, and an equerry from the palace presenting himself before an impressed Verrocchio, with a message summoning me to his master. I went, clad in my simple best—the decent doublet and hose which Guaracco had given me on my first evening at his house, my red mantle, and a flat velvet cap with a long drooping feather. With a little shock of pleased astonishment, I saw that the equerry had brought me a horse—the same fine gray over which I had fallen out with the late lamented Gido.

"The beast is a present from the Magnificent," I was informed as I mounted.

To the palace we rode and there, while my horse was cared for by the equerry, I was conducted through a great courtyard to a rich garden among high hedges of yew, trimmed to a blocky evenness, with nichelike hollows for stone seats or white statues of Grecian style. There were roses, both on bushes and climbing briars, flowering shrubs in clumps and ordered rows, a perfectly round little pool with water lilies—all luxurious and lovely, though perhaps a bit too formally ordered. In the center of this, under a striped awning, lounged Lorenzo and his friends on cushioned seats of gilded wood and leather.

To the four other guests I was introduced as Ser Leo. His Magnificence still shied at pronouncing my barbarous surname. And I bowed to each as his name was spoken. First there was Lorenzo's younger brother and co-despot, Giuliano, the same cavalier who had ridden with Lorenzo upon me at the moment of Gido's death. He was one of the handsomest men I have ever seen, even as Lorenzo was one of the ugliest.

Almost as highly honored was an elderly churchman with a fine, merry face and plain but rich vestments—Mariotto Arlotta, the aristocratic abbot of the woodland monastery of Camaldoli. His repute, I found, was that his repartee was the sharpest and readiest in all the state of Tuscany, and indeed he jested in a lively, though ecclesiastical, fashion.

Close beside him stood a plump, courteous young man in his middle twenties, Sandro Botticelli the rising court painter.* Him I found friendly, though moody.

The last man of the group, and the youngest, was an adolescent poet, Agnolo Poliziano. Uglier even than Lorenzo, he was wry-necked, crooked-mouthed, beak-nosed and bandy-legged.** Yet, for all this sorry person and ungrown youth, he was eloquent and thoroughly educated. From him I was to learn, in after days, much of what a man must know to shine as cultured in Fifteenth-Century Florence.

"A YOUNG sparkle-wit, friends," Lorenzo told the others in presenting me. "He was thrown in my way, I nothing doubt, with the thought that he might assassinate me. Yet am I drawn to him by the lustrant wisdom of his speech. 'As well hang for a

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* Botticelli's most famous paintings are those of Giuliano's sweetheart, Simonetta Vespucci. He was a favorite of Florentine society, and a loyal friend of the Medicis.

** Poliziano, in later life, was a tutor to the children of Lorenzo, and remained in the Medici household until the death of his patron.

sheep as for a lamb,' he defied me yesterday."

He paused, while the saying went around the delighted group, from mouth to merry mouth.

"If he is dangerous, yet shall I keep him, as I keep the lions at the Piazza del Signoria. Guard me, all of you, from any weapon save his tongue." Once more he turned to me. "What of that sorcerer cousin of yours, Guaracco?"

To my own surprise I found myself pleading earnestly and eloquently for Guaracco. It was as if I had been rehearsed in the task, and indeed I probably was, by Guarracco himself. Hypnotists, I say again, can do such things. In the end Lorenzo smiled, and seemed far less ugly.

"By the mass, I wish my own kinsmen spoke so well on my behalf," he said to the others. "Ser Leo, your eloquence saved you yesterday, and today it recommends Guaracco. He is dull, I have thought, but he knows something of science. I am minded to send for him, for all he is a wizard."

"Sorcery cannot prevail against pure hearts," contributed the Abbot Mariotto, at which all laughed heartily.

The equerry who had conducted me was dispatched to search for and bring Guaracco. Meanwhile I was served with wine by a bold-eyed maid servant in tight blue silk, and entreated to join the conversation. It was turning just then on the subject of a new alliance of the Italian powers against possible Turkish invasion.

"The threat of the infidel comes at an opportune time," Lorenzo pointed out. "Taunted and menaced, we Christians forget our differences and draw together for our common safety. The Sultan dares not attack us, we dare not quarrel among ourselves, and peace reigns." *

"Your Magnificence does not like war, then?" I ventured.

He shook his ugly crag of a head. "Not a whit. It is expensive."

"And vulgar," added Botticelli.

"Aye, and dangerous," chimed in the poet Poliziano.

"And in defiance of heaven's will," sighed the abbot, as though to crown the matter.

"And yet," Lorenzo resumed, "I bethink me that it is well for a state to prepare for war, that others may fear, and be content to keep peace. I have it in mind, Ser Leo, that you spoke yesterday of war engines."

"I did," was my reply, but even as I spoke I was aware how poorly my scrambled memory might serve me. "For instance, I might design a gun that shoots many times."

"Ha, some of Guaracco's witchcraft!" exclaimed Lorenzo at once.

"Not in the least," I made haste to say. "Nothing but honest science and mechanics, may it please Your Magnificence."

In my mind the form and principle of machine-gunnery became only half clear. I wished that I had mentioned something else.

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* Lorenzo was later able to bring about this alliance, both for peace among the Italian powers and safety from the Moslem raiders.

[*Turn page*]

BUT Lorenzo would not be dissuaded from knowing all about my oft-shooting gun. He sent Poliziano for paper and pencils, and ordered me to draw plans. I made shift in some fashion to do a picture of a gun-carriage, with wheels, a trail and a mounting of, not one barrel but a whole row, ten or more.

"It is nothing of particular brilliance," objected the poet. "A rank of arquebusiers would serve as well."

"Aye, but if we have not overmany ranks of arequebusiers?" countered Lorenzo, and gave me a most generous smile. "A single man, I think, could serve and aim and fire this row of guns. Ten such machines could offer a full hundred shot. Well aimed and timely discharged, that hundred shot might decide a great battle."

Encouraged, I offered a variation of the idea, a larger and wider gun emplacement with, not small barrels, but regular cannon placed in a row and slightly slanted toward the center. These, I suggested, could be so trained as to center their fire on a single point. The bank of cannon, wheeled into position and the fuses lighted in quick succession, could throw a shower of heavy shot against a single small area upon a rampart or wall, battering it open.

"Right you are!" applauded Lorenzo. "It would outshine the greatest battering-ram in all Christendom."

"It may be improved," I continued, "by explosive shot in the cannon."

"Explosive shot?" Giuliano repeated in sharp protest. "How, Ser Leo? Is not all shot solid? Can lead and iron explode?"

"Yes, with powder and a fuse inside," I said at once, though none too surely.

"Now nay," he argued. "What would prevent such a shot from exploding in the very mouth of the cannon, belike splitting its barrel and doing injury to our own soldiers?"

I had to shake my head, saying that I could not answer definitely just then.

"Then answer another time," said Lorenzo kindly. "In the meanwhile" —he picked up my two drawings— "these will go to my armorers, for models to be made. Ser Leo can draw us other things, as well."

"He draws notably," contributed Botticelli.

Evening had drawn on, lamps were lighted, and we had supper in the garden, a richer and spicier meal than I care for. There was plenty of wine, and all drank freely of it, not excepting the abbot. Finally some fruits and ice-cooled sherbet were brought, and at this dessert we were joined by five or six ladies.

Most beautiful and arresting among these was the famous Simonetta Vespucci, the reigning toast of Florence. She was no more than eighteen years old, as I judged, but mature in body and manner, a tall, slenderly elegant lady, a little sloping in the shoulders but otherwise beyond criticism in the perfection of her figure. Her abundant hair gleamed golden, and her proud face was at once warmly and purely handsome.

All the men were her frank and devoted admirers. I have heard that the very shopkeepers and artisans who saw her pass on the street were wont to roll their eyes in awe at her loveliness, and even to fight jealously over this noble creature they dared not address. Of those present, she appeared to prefer the dark, dashing Giuliano de Medici.

"I FEAR that it will be a hot summer," she mourned as she finished her sherbet. "There will be little ice left in the storehouses, even now."

"Nay, then," I made haste to say. "Ice may be kept through the hottest months, if it is placed in houses banked with earth." I quickly sketched such a half-buried shed. "And also let the ice be covered deep with sawdust and chaff."

"How?" demanded the painter, Botticelli. "I have known chaff to be placed over fruit in a shop, and so keep it from freezing. If chaff keeps fruit warm, will it also make ice cold?"

I was on the point of launching into a discussion of refrigeration and insulation, but prudently stopped short.

"It does indeed bring coldness," I

assured him. "Or rather it keeps the coldness that is there already."

"Black magic," muttered Abbot Marriotto, crossing himself with a beringed hand.

"Nay, white magic," decided Lorenzo, "for it does good on earth, does it not, and no harm to any creature? Ser Leo, do you guarantee that ice will thus remain through the summer, and not perish?" He turned to a servant. "Go you," he ordered, "and summon a secretary." And then to me: "He shall make notes of what you say, young sir, and tomorrow shall see the building of such a house. Therein my ice shall lie, with good store of chaff to insure its cold."

"This strange young man is a learned doctor," said the silvery voice of a lady, who toyed with a goblet of jeweled gold.

"Does he not know of more exalted things than chaff and houses buried in the earth?" asked Simonetta Vespucci, deigning to smile upon me. "Ser Leo —for so you seem to be called—can you not tell us a tale of these stars, which now wink out in the sky and float above our earth?"

Her eyes and her smile dazzled me, understandably, along with any man on whom they turned. Perhaps that is why I ventured to dazzle her in turn.

"Madonna Simonetta," I said, "permit me to say that those stars are worlds, greater than ours."

"Greater than ours?" she cried, and laughed most musically. "But they are no more than twinklets, full of spikes and beams, like a little shining burr."

"They are far away, Madonna," I said. "A man, if only at the distance of a hundred paces, appears so small that he can be contained within the eye of a needle held close before you. So with these bodies, which are like the sun—"

"The sun!" she interrupted. "The sun, Ser Leo, is round, not full of points like a star."

There was applause of her lively protest, from all the men and most of the women.

For answer, I took up a sheet of the paper on which I had been sketching, and asked for the loan of a pin. One of the ladies had a silver bodkin in her cap, and offered it. With this I pierced a hole in the paper.

"Madonna," I addressed Simonetta, "hold this hole to your eye, and look through it. The smallness of the opening will shut away the glitter . . . So, you do it correctly. Now"—I pointed to where, in the evening sky, hung shimmering Jupiter—"look yonder. Is that star, seen through the hole in your paper, a burr or a small round body?"

"This is marvelous," she exclaimed. "It is indeed round, like a gold coin seen from a distance."

THE others cried out in equal astonishment, and each must needs look through the hole in the paper at Jupiter. I turned over in my mind the possibilities of explaining a telescope, but decided not to offer another foggy theory that I could not support with exact plans or models. I contented myself with attempting to lecture on astronomy.

"Gentlemen and fair ladies," I said, as impressively as I could manage, "these stars look so small that nothing appears less, yet there are a great many that are far larger than our own Earth. Think then how trivial our own star would appear if—"

"Faith, Cousin," called out a voice I knew, "you seek to belittle the world, and Florence, and Lorenzo the Magnificent!"

It was Guaracco, absolutely overwhelming in green and gold, who strode forward and paid fulsomely cordial respects all around.

"Forgive my young kinsman, Your Magnificence, if he has been impertinent," he pleaded eloquently. Then, turning to me: "Will you step aside, Leo? I have a message for you, from Lisa."

At the mention of that name, a little murmur of laughing congratulation went up, to the effect that I must have a sweetheart. Indeed, I felt a quickening of my pulse as Guaracco and I walked a little away through the garden, out of the range of the lamplight.

"What is the message from her?" I asked him.

"That was but an excuse to get you alone," he growled. "I warn you, Leo, say no more of these matters of the stars."

"But why not?" I demanded, surprised.

"The stars in their courses are a specific knowledge of sorcerers. I overheard your teaching just now—"

"I was teaching truth," I broke in, warm to defend myself.

"I know it," he said. "I do not think this little mote, our planet, is the center of all things. But the old belief is part of my trade. I frighten or reward or guide men by horoscopes and prophecies—from the stars. Do you not show me a liar, else I may smooth your way to destruction."

I glared at him, but in my mind was more wonder than rage. Once again he showed himself a sound scientist; once again he showed that he hid his knowledge and fostered error for profit. Only some great evil wish dictated such action. I need not be too ashamed, I feel, to say that he made me afraid.

CHAPTER IX

The End of the Evening

GUARACCO did his best to be the lion of the occasion. Not that he did not merit attention; he could charm and astound and inform. Lorenzo publicly and good-humoredly withdrew his previous opinion that Guaracco was dull, and bade him talk on any subject he would. Strange, philosophy-crammed conversation intrigued Lorenzo, as the jokes of a jester or the gambols of jugglers might intrigue a more shallow ruler.

And Guaracco obliged, with improvements upon my discussion of war machines. To my multiple-fire device, he added a suggestion whereby the crossbows of Lorenzo's guard might be improved—a simple, quick lever to draw and set the string instead of the slower and more cumbersome *moulinet* or crank.

The company praised and approved the idea, and Guaracco beamed. He liked it less when Botticelli suggested, and Lorenzo agreed, that I make clearer his rough sketch of the lever action.

"I perceive"—Guaracco smiled satirically—"that you also admire my kinsman's drawing. Has he told you of that other talent he hopes to develop? Flying?"

"Flying?" repeated the beautiful Simonetta, her eyes shining.

"Aye, that. With a machine called an 'airplane'."

He used the Twentieth-Century English word, and I must have started visibly. How did he know that name and invention? I did not remember telling him about airplanes. But Simonetta was already laughing incredulously.

"Belike this young man seeks to soar with wings, and reach those great worlds and suns he pretends to see in the sky," she suggested merrily, a twinkle in her eyes.

"It sounds like sacrilege." Giuliano garnished his sweetheart's apparent effort to embarrass me. "Flight is contrary to man's proper nature."

I was a little angry. "How contrary?" I demanded. "Is it more contrary or sacrilegious than to ride comfortably and swiftly on the back of a horse."

The abbot came to my support. "The young man says sooth," he pronounced. "Holy writ sings of the righteous: 'They shall mount up with wings as eagles,' and again, in the words of the Psalmist himself: 'O, that I had wings like a dove!' Surely such flight would not be ungodly, unless it were accomplished by the aid of black magic."

"Well, Ser Leo?" Lorenzo prompted me.

He leaned back in his cushioned chair of state, crossing one long nobby leg over the other. His companions grouped themselves gracefully, if sycophantically, around him. All were waiting for my reply to the abbot's last suggestion.

"Your Magnificence, there is no such thing as black magic," I said, "either in my devices, or elsewhere."

Every eye widened, and Guaracco stiffened as though I had prodded him with a dagger. I remembered that he had come close to frightening me not an hour before, and determined to make some amends to my own self-respect.

"Of all human discourses," I elaborated warmly, watching him, "the most foolish is that which affirms a belief in necromancy." Guaracco glared, but I did not hesitate. "If this necromancy, or black magic, did truly exist, he who controlled it would be lord of all nations, and no human skill could resist him. Buried treasure and the jewels of Earth's heart would lie manifest to him. No lock, no fortress could remain shut against his will. He could travel the uttermost parts of the Universe. But why do I go on adding instance to instance? What could not be brought to pass by such a mechanician?"

I fashioned clay tubes for the acid (Chapter XVI)

AS I finished, there was a sigh, a mutter, and finally Lorenzo struck his hands together in applause.

"Well said, Ser Leo!" he cried. "Do you not think so, Guaracco? Does this not prove that there are no sorcerers?"

"It proves, at least, my innocence of the charge of sorcery." Guaracco smiled, and bowed to give the reply

strength. "If I could do such things, would I be so humble and dependent a servant of Your Magnificence? Surely"—and his eyes found mine once more—"nothing is impossible to a true necromancer."

"Nothing," I agreed, "except refuge from death."

His smile vanished.

Lorenzo lolled more easily in his chair.

"This bethinks me," he remarked. "One matter has not been settled. Ser Leo is a boy, a student of the arts, yet he conquers with ease my nonpareil swordsman. That smacks of enchantment."

I spread my hands in one of the free Florentine gestures I was beginning to use.

"I make bold to deny that it was aught but skill."

"We must make trial."

His Magnificence permitted himself another faint grin. I must have shown an expression of worry, for Giuliano burst out into confident laughter and sprang forward, hand on hilt.

"Let me do the trying," he cried, his gay, handsome face thrusting at me in the white light of the lamps.

Simonetta's silvery chuckle applauded her cavalier. The abbot also called for this unecclesiastical performance to take place without delay. Before I well knew what was happening, the chairs, benches and other furniture had been thrust back, the lamps trimmed to give more light, and I faced Giuliano in the center of the cleared space. Poliziano had run to fetch something, and he came close to me.

"Here, young sir," he said, "defend yourself." And he thrust a hard object into my hand.

Giuliano had already drawn his sword and wadded his cloak into a protection on his free arm. I transferred my own weapon to my left arm, and at sight of it my heart sank. It was a mere cane of wood, hard and round and of a sword's length, such as Florentine lads used for fencing practice. Giuliano, on the other hand, fell on guard with a blade that was one of the finest and sharpest I ever saw. Plainly, I was to furnish sport for this gallant and his friends, and all the advantages were denied me.

Because I must, I lifted the cudgel to cross his steel. Lorenzo grunted.

"Your cousin is sinister-handed, Guaracco," he observed. "Belike that is the secret of his skill."

"I fear not," said Giuliano, with unmalicious zest, and he disengaged and thrust at me.

Apparently he meant business, for the point would have nicked, wounded my breast had I not shortened my own arm and beat it aside. Cheers went up from the ladies—then slid into dismayed screams. For, extending my parry to its conclusion as a riposte, I smote Giuliano smartly on the inside of the elbow, and he wheezed in pain and sprang back out of reach. Had I followed and struck again, he might have been forced to drop the sword. But I realized that I had to do with the second greatest man in Florence, and only stood my ground.

Giuliano laughed again. "God's wounds, what a tingler!" he praised me. "I'll ward it another time."

Forward he came again, right foot advanced, his cloaked left arm brought well up. Again I awaited his thrust, parried it and drove it out of line, then riposted as before. He, as good as his promise, interposed the folds of the cloak, taking a muffled tap on his left forearm. But that hurt him somewhat, and he retreated. This time I followed him, avoided an engagement, and half struck at his head. But I stopped in time, fearing to injure him and make dangerous enemies. Instead I diverted the course of the stroke into a sweeping *moulinet,* passing over his weapon to my right and his left, and terminated it in a resounding thwack on Giuliano's velvet-sleeved sword arm.

ABSOLUTE silence fell, then a murmur of consternation from the onlookers. For Giuliano's smile had vanished, and his eyes flashed fire. Plainly the contest had ceased to be sport with him—my thumps had made him angry. He snapped out a soft blasphemy, advanced quickly, and

sped a slashing cut—not at me, but at my stick. The edge of his steel, keen as a razor, shore through the tough wood without effort, and I was left with a mere baton in my hand, a truncated billet no more than fifteen inches long.

"No, no, Giuliano, spare him!" called out Lorenzo, but too late to balk his brother's murderous stab at my throat.

I managed to parry with the short length of wood remaining to me, causing his point to shoot upward and over my left shoulder. At once I stepped forward, well within his lunge. Before he could retreat or recover, my free right hand caught the cross-guard of his weapon, and wrenched. His own right arm, bruised twice in the previous engagements, had lost some of its strength, and in a trice I tore the sword away from him.

At once I dropped my severed stick, fell back and whipped the captured hilt into my left hand.

"By your leave, my lord," I panted, "I will continue the matter with this more suitable equipment."

But then Lorenzo, Poliziano and Guaracco had sprung forward and between us. The sorcerer caught me in his arms and wrestled me farther back, his red beard rasping my ear as he hissed out a warning to take care. Lorenzo the Magnificent was lecturing Giuliano in the manner of big brothers in every land and generation. And Giuliano recovered his lost temper.

"Hark you, Ser Leo, I did amiss," he called out to me, laughing. "I had no lust to hurt you at the beginning. I meant only fun. And then—" He broke off, still grinning, and rubbed his injured arm. "I forgot myself. It is not many who can teach me either swordplay or manners but, by Saint Michael of the Sword! You have done both."

It was handsomely said, and I gladly gave him back his weapon, assuring him that I bore no ill-will. At that, he embraced me in the impulsive Latin manner, swearing that he would stand my friend forever. The company subsided to chairs again, happy that no harm had befallen either of us.

"We wander from the path of our earlier discourse," reminded Abbot Mariotto tactfully. "Ser Leo was speaking of a flying machine. Where is it, my son?"

"It is not yet constructed, Holy Father," I replied.

As with so many other things, the principle of flying a heavier-than-air machine was caught only vaguely in the back of my head. I could visualize roughly the form, a thin body with a rudder for tail and outspread wings. And something to stir the air.

"Belike you would strap wings to your arms," suggested Giuliano.

"Impossible," spoke up Poliziano. "Are not men's arms too weak for flight? Would there not need great muscles, at least as strong as those of the legs?"

I had an inspiration, and an answer. "The muscles of our legs are many times stronger than needful to support the weight of our bodies," I told him.

Lorenzo, eager as always for new philosophic diversion, challenged me to prove it. I asked him to get me a long, tough plank, and servants were sent scurrying after it. While I waited, I chose a strong, straight chair, and sat upon it. A cushion I took and laid upon my knees. When the plank arrived, I balanced it upon this cushion.

"Now, come, all of you," I invited, "and rest yourselves upon this plank."

LORENZO did so at once, and then his brother. The others followed laughingly, not excepting the abbot and Madonna Simonetta—ten in all, supported upon my knees. Only Guaracco stood aloof.

"Your long shank support many hundredweight, my stout Cousin," he said, "but what does this prove?"

"It proves his argument, and the fallacy of mine," handsomely replied Poliziano for me, as he rose from his seat at one end of the plank. "His legs have tenfold strength, and his arms may be strong in proportion, enough to flap wings and waft upward his entire weight."

"Then let me see it done," pronounced Lorenzo, with a grand finality that made my heart sink. "I am

ambitious, Ser Leo, to watch you 'mount up with wings as eagles.' And I do not forget the other arrangement, by which you will make solid shot to explode."

This last labor, which I had been glad to slight in conversation, now seemed actually the easier.

But Simonetta and the other ladies professed themselves weary of cold science, be it ever so important in a masculine world, and demanded music. Poliziano, whose voice was as sweet as his appearance was ungainly, immediately snatched up a silver lute and picked out a lively tune. The song he rendered was saucy and merry, and not a little shocking; but the holy abbot led the loud applause.

"More! More!" cried Simonetta.

Poliziano, bowing low to her, sang to a more measured and dignified tune, an offering that had all the earmarks of impromptu versification, inasmuch as it mentioned the beauty of Simonetta, the magnificence of Lorenzo, the churchly dignity of Abbot Mariotto and, finally, the enigmatic quality of my own discourse.

"And will not Ser Leo sing?" asked one of the ladies when Poliziano had made an end. "His conversation and talents are so varied—war, science, debate, flying like a bird—"

"Let us hear your voice, young sir," Lorenzo commanded me.

Thus urged, I took Poliziano's lute, altering the pitch and harmony of its four strings until I could strum upon it in a hit-or-miss fashion, evoking chords to accompany myself. The song which I managed to improvise and sing to Poliziano's tune was on the subject of stars, so edifying to my new friends and so distasteful to Guaracco. Since Lorenzo and the others commended it highly, it may not be amiss to set it down here.

You think I am a spark—I am a star.
You think that I am small, but I am great.
You think me dim, but I am only far,
Far out in space, beyond your love and hate.

You think me feeble—but I am a sun,
Whose rule is resolute, whose face endures,
Beneath whose heat and light are wonders done,
Throughout a leash of nobler worlds than yours.

You think you know my secrets, and you say
That they are thus and thus—but, through the sky,
My beam strikes from so many years away,
You know not how I live, nor when I die.

CHAPTER X

The Bombs and the Wings

SILENT as we departed from the gathering together, Guaracco soon spoke.

"I know very little, after all, of how you live," he said "but perhaps I can arrange how and when you die. That song was meant to reproach me."

"Just as you like" I rejoined, for my fear of him had quite departed. Too, I was arraying my spirit against further imposition of his will. "Your masterful ways become burdensome, Guaracco. I defy you."

And I paused, near the palace gates, my fists clenched.

"No violence," he warned me. "I carry a sword, as well as that short gun you saw yesterday. And my dwarfs are never far away. You, on the other hand, have not yet assumed our Florentine fashion of carrying arms." His beard stirred in the gloom, and I knew that he smiled. "But I shall not kill you, Leo, unless you force me. All these defiances stand me in good stead."

"In good stead?" I repeated, for after my temporary semi-hypnotized slavishness, nothing had been further from my wish than to aid Guaracco.

"Aye, that. In scorning magic and upholding science, you taught me a lesson, and few can boast of teaching me anything of worth. It is time for me to forget my sorcery pretenses, at least where it concerns my relationship to Lorenzo. Science shall be my way with him hereafter—but not too much science. You and I shall work wonders for him, the two of us."

"Am I to help you?" I sneered.

He shook his head, laughing. "It is I who shall help you. For instance, that matter of exploding shot. I saw, as did not Lorenzo, that you were perplexed. But it happens that I may

help you to fashion such a thing. Again, is it not true that you wish to return some day to your own century?"

Useless to deny that, and I said so.

"And have you not forgotten many details of your time-reflecting machine?"

Equally useless to deny that.

"For instance," went on Guaracco, as we resumed our walk together, "you have forgotten certain ways to use this strange new power which you named to me as electricity. It gives light, but how?"

I could not tell him.

"I shall refresh your lost memory. Is there not a certain bottle or globe, exhausted of air—and a wire of some substance set glowing within—"

I clutched his arm, so suddenly fierce that he broke off and swore in startled pain.

"How do you know that?" I demanded. "Yes, I had forgotten entirely. But you knew, and about airplanes as well!"

"Let me go," he commanded. "Here come Lorenzo's grooms with our horses."

WE accepted our mounts, and rode away side by side.

"Now," said Guaracco, as we entered a dim street, lighted only by the lanterns of a watch patrol, "you will remember that I showed you a pearl, a beautiful jewel? And it put you to sleep?"

"You mean that in my trance I remembered—"

I could see how possible that was. Meanwhile, I braced my spirit lest he try some other occult trick. But he only nodded, as if to check the point.

"I learned things about your science which you yourself cannot grasp when awake. You shall look into the pearl again, Leo, and more knowledge will creep forth. We shall produce wonders for Lorenzo, winning great favor and possessions, and also build your time reflector. Nay *our* time reflector —for perhaps I shall make the journey through the ages with you."

He was swaying me very strongly but still I resented his absorbing mastery of every situation. He seemed to read my mind.

"Let us not be lord and servant any more," he offered, "but colleagues and friends. Lorenzo is disposed to grant us money for a shop of our own. Stay on with Verrocchio lest others become suspicious. But your spare time can be applied to our own profit." His voice became sly. "Lisa asks after you, lad. She would be pleased to see you again. And, for all your last words to her, I think you would be pleased, too. Is is not so?"

Finally I agreed to a truce and a partnership. After all, it was the only way to escape from the Renaissance. And Guaracco's concessions seemed handsome, at the time.

On the following day I skimped my work with Verrocchio, and called on Guaracco at the little house where once he had tried to bestow Lisa upon me. Lisa was there, shy but apparently glad to see me. How had I been able to admire Simonetta Vespucci so greatly, only twelve hours before I could not understand. But I did my best to conceal my feelings. Guaracco must not bring that influence to bear upon me a second time.

As at his house in the country, Guaracco had fitted up the cellar for laboratory and workshop. At once we began work on the "explosive shot" which Lorenzo had demanded.

At my recommendation we made it cylindrical instead of round, a good eighteen inches long and six in diameter. Bronze, being light, strong and workable, was our choce for the outer shell of this bomb, and I cut deep cross lines in the outer surface so that it might the more easily explode and fly in pieces. The inside we filled strategically with lumps of lead, with spaces between for powder.

Guaracco, though helpful, was as puzzled as Giuliano de Medici about the delay in explosion. To be certain of that delay, I mixed a slow-burning powder, with charcoal of willow wood only lightly burnt. The completed mixture as no more than dark brown in color, and a noticeable interval of time was needed for its ignition. Of this slow-burning powder I made a fuse or

match, which led through a hole in the rear part of the bomb.

"The discharge from the cannon will ignite the match," I explained, "and the explosion will come in as short a space as you would take to say an *Ave Maria.*"

"Say an *Ave Maria* for the souls of those it strikes." Guaracco laughed with cruel relish.

We also made a more elaborate bomb, its curved sides pierced with muzzles from which bullets could be thrown by the explosion. When both were finished—we took only a morning and an afternoon—Guaracco recommended that we wait before presenting them to Lorenzo.

"I take a parable from the construction itself," he admonished me. "Delay the explosion of this wonder. It will be the more effective with His Magnificence. Remember, also, that when you have given him the explosive shot, he will demand at once the flying machine."

That was excellent advice, for I was still muddled in my plan to build man-lifting wings, and Guaracco could not—or would not—help me.

I therefore went into the trading centers of Florence, to shop for materials. My teacher Andrea Verrocchio, who had heard little of my problem, suggested as framework the wood of Spanish yew which was employed by the archers of England for their superb longbows, and was undoubtedly the strongest and lightest wood to be had. I purchased a bundle of such staves which I thinned and shaped by careful whittling, and procured strong silk cloth for the fabric.

MY best model, as it seemed to me, would be the wing of a bat. I went so far as to snare and kill several birds—sorrowfully, for I love animals—and, by manipulating their wings and bodies, I found out certain principles of flight. These I demonstrated by small-scale models, to be hung on threads and made to simulate flying by a strong blast of air from a bellows. A new problem added itself to that of the wings—the construction and manipulation of the tail as a rudder. I sketched a design like a fan, which I hoped to control by pressure and motion of the feet.

Guaracco professed a great deal of interest in this work of mine, which took up all my spare time for several days. His interest seemed to partake a little of superior amusement, as though he foresaw failure. But Lisa was kindly and admiring, and even helped in the sewing of the fabric, which needed a woman's skill. I joined the ribs of the wings and tail myself, with looped pieces of leather at the junctures, and my thread for sewing and binding was new raw silk.

It was late in the summer of 1470—the last of August, as I think—when I had the trial of my machine.

For greater privacy, we returned to Guaracco's country house, the scene of my first appearance in this age. Guaracco led the way on his fine white stallion; I rode the gray that had belonged to my hapless adversary Gido, which had later been given me by Lorenzo.

Lisa had a pretty little mule, and two grooms carried the unwieldy bundles that held my wings and rudder. How and when Guaracco's dwarfs made the journey, I do not know. We left them behind in Florence, but they were waiting for us when we dismounted at the country house. Servants like that pleased Guaracco immensely.

After a light noon repast of cold meat, bread and some white wine, I went to a shed at the back of the house. Scrambling up, I donned my pinions.

They measured almost thirty feet from tip to tip and were fastened to me with light, strong straps, under the armpits, around my biceps and between elbow and wrist. There were springy grips for my hands, and by relaxing or applying squeeze-pressure I could spread or fold the umbrellalike ribs that supported the fabric. The tail was similarly fixed to my legs, which I could straddle to extend the fan or hold close to fold it.

I gazed down to the ground. It seemed a long way off. Beneath me stood Lisa, her face full of apprehensive interest; and at an upper rear win-

dow of the house Guaracco thrust his red-bearded head forth to watch.

"Ready," I said to myself. "Go!"

I sprang. As I did so, I spread and beat the wings, extended the tail downward to give me direction in soaring. A sickening, airy moment. My face turned up into the sunlight, I seemed to feel the world grow small beneath me. Another longer moment, with the touch of triumph, another beating thrash of the wings. Then I whirled helplessly—and fell.

I suppose I was stunned. There was a galvanizing shock and darkness, then, from far away, laughter—the delighted laughter of Guaracco. Blending with it came a second voice, softer, gentler. Lisa was pattering a prayer for my safety.

STRUGGLING with my close-clamped eyelids, I managed to gaze up. Lisa's face was close above mine, all white except for the dark, worried eyes. She had taken my head in her lap.

"You are not dead, Leo?" she asked.

"Not I," I assured and I sat up. It was difficult, for I was bruised in all my limbs, and the laboriously fashioned wings and rudder were broken to bits.

Guaracco descended from his post at the window, and came out into the yard.

"Not Icarus himself plunged so tragically from heaven," he jibed.

I rose to my feet, unstrapping the tangled wreckage.

"For a moment I flew," I defended myself. "The next time—"

"Must there be a next time?" interposed Lisa, who still trembled. "Pray heaven you do not seek to fly again."

"She pleads most prettily," Guaracco observed, stroking his beard. "Are you not content to remain on the ground with her, Leo? Will you not leave flight to the birds, its proper masters?"

But I shook my head stubbornly.

"Not I. A bird is no more than an instrument working according to mathematical law. It is within the capacity of man to duplicate that instrument and its working. I shall try again, and I shall succeed."

"Send that I am present to watch," said Guaracco, chuckling.

But he was more helpful when, in the house, I stripped off my doublet and showed bruised ribs and shoulders. His many skills included that of mixing salves and ointments, and the sticky stuff he applied to my hurts helped them swiftly and greatly.

In any case, we had the bombs to offer Lorenzo.

CHAPTER XI

Hopes of Escape

BOMBS were a curiosity, but ours pleased Lorenzo greatly, when Guaracco and I returned to Florence with them. He gave us an audience, and later entertainment on the terrace of his villa in the pleasant green suburb of Fiesole.

[*Turn page*]

"These things would do us credit in any battle," he was gracious enough to say. "Yet it is my hope to profit by some more peaceable marvel of yours. What, for example, of that flying machine?"

"I make progress."

I attempted to put him off, and Guaracco also labored to change the subject. We discussed the summer heat, and the threatened drying up of wells.

"May it please Your Magnificence," I made bold to say, "an irrigation plan might be drawn up. The waters of the Arno could supply the town in dryest season, and water the fields as well."

"That would benefit the people of my beautiful Florence," said the despot, with one of his softening smiles at play on that arrestingly ugly face.

"Again," I pursued, "does it not seem well to widen the streets of the town? A street should be as wide as the houses are high."

"Make haste slowly," he bade me. "Finish the flying machine before you turn Florence into a paradise."

But an early autumn, with real Tuscany frost, enabled me to ask for time and a brighter day. As winter came on, I lived in Florence, working under Verrocchio at paintings, statues, metal work, and my own devices. In the evenings I had plenty of diversion, for the artist Sandro Botticelli showed himself willing to become my friend and sponsor in artistic society.

I was often entertained at great mansions. One or twice I was present at informal dinners and discussions at Lorenzo's palace, and once at the house of Simonetta Vespucci herself. There I met her kinsman, Amerigo Vespucci, who had won fame as a geographer and map-maker. Visiting him was a tall, roan-haired young man from Genoa, a sailor and adventurer.

"Cristoforo Colombo," Vespucci introduced him to Botticelli and myself, as we stood warming ourselves before an open fire of aromatic wood.

"Colombo?" I repeated. The name did things to my maddeningly distorted recollections. "Colombo? Hark you sir, you intend to follow the sea for all your days?"

The roan-haired visitor nodded and smiled. "Aye, that. I have visited the infidel princes to the east, and Spain, and even England. I hope to go further some day."

"Go further?" I exclaimed excitedly. "I should think you will go further!" In my earnestness I laid a hand on his shoulder. "Ser Cristoforo," I said, "much of the world remains unclaimed, undreamed of. There are whole continents besides these we know—whole oceans and shoals of islands. It is fated for you to sail westward, to find a new world!"

"How, a new world?" he asked me, a little puzzled.

"This earth is round," I informed him weightily. "It is shaped like a ball, with oceans and lands at every quarter of it. In circumference it is nearly twenty-five thousand miles."

HE burst into laughter at that, so hearty that Botticelli and some others looked up to see the reason.

"I see it now, Ser Leo!" cried Cristoforo Colombo. "You have been reading that strange book by the Englishman."

"What strange book?" I demanded, puzzled in my turn.

"John Mandeville was the Englishman's name, and he wrote his tale of wondrous travels a good hundred years ago. I bethink me, he even said that the circumference of the earth is something near your measurement, above twenty thousand English miles.* But to my mind, it is smaller than that, with India's most eastern spice islands not too many days' sailing out from the Azores."

"You tell us nothing new, young sir," Amerigo Vespucci said to me. "Surely only the simple country folk think that Earth is other than round and without end. The journey of the Sun and stars, the dropping down of a vessel's hull at the line of sky and sea, these prove the roundness of the Earth."

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* "The Travels of Sir John Mandeville, Knight," existed in manuscript form as early as 1371. The theory of Earth's roundness, common among intelligent geographers in the Fifteenth Century, is set out at length by Mandeville, who describes a reputed voyage nearly around the world in his own time.

"And so I might have demonstrated by a voyage, had some prince given me ships," rejoined Colombo wistfully.

I could not help but assure him that this gift would come to him in the year 1492, from the ruler of Spain.

"By your leave, my friend, I shall wait until that happy day dawns," he said, with a bow.

And that incident cured me of making prophecies.

Yet I was successful in fashioning many devices, which served to appease Lorenzo, though I was so long in perfecting my flying machine. The most popular, to peasants and porters as well as to my companions in higher social scale, was the wheelbarrow.

As to my studies in art, I was able to contribute many suggestions which Verrocchio accepted gratefully, among them the rather obvious one that a painter or sculptor of the living figure should study anatomy. Such study was most difficult in Florence, for religious law frowned upon the godless cutting up of bodies that should have Christian burial.

However, Lorenzo once again showed himself ready to assist me, and I was enabled to visit the morgue, to study and even dissect bodies of paupers. Some of my sketches Verrocchio posted on the walls of his *bottega* as ideal studies, and we also assembled on a pedestal the complete skeleton of a horse, to be observed in making equestrian paintings and studies.

At the end of winter, Lorenzo entertained Galleazo Maria Sforza, the duke of Milan in lavish manner. Andrea Verrocchio was pageant master during those glittering days, and I helped him to plan processions of horsemen and costumed figures, routs, balls, receptions and miracle plays, and even a warlike afternoon of jousting in one of the public squares.

Here banks of seats were erected all around a cleared space, so that the square resembled a stadium or hippodrome, and various Florentine cavaliers tilted against the followers of the Milanese ruler. Lorenzo offered, in what he must have thought a kindly mood, to provide me with armor, a lance, and a war horse, that I might take part in the activity. When I declined, he thought that I was being only modest.

"You are an artist and scientist," he argued, "and therefore, among free Florentines at least, a gentleman and the peer of any. Do not be afraid of these lords with their lances."

BUT I managed to beg off, though the sport was not as dangerous as I had surmised. For one thing, the opposing cavaliers did not dash full upon each other. They rode on opposite sides of a paling, endeavoring to strike or push across it with lance point against shield or helmet.

For another thing, professional soldiers were barred, as apt to forget themselves. Giuliano de Medici, handsome and dashing, wore a knot of ribbon tied upon his mail-clad arm by the beautiful Simonetta, and overthrew two opponents. Otherwise, the jousting struck me as rather tame.

Lorenzo took special pride in showing his art treasures to Sforza who, as Poliziano later told me, cried out that mere gold and silver could not approximate such riches of the soul. And when the Milanese departed they were too greatly impressed to hide their admiration—which was what Lorenzo had hoped.

It had been Guaracco's earnest ambition to make a friend of Galleazo Sforza, but after a carefully contrived interview on the final day of the visit, he sought me out at Verrocchio's *bottega*, shaking his head.

"Sforza is too absolute a tyrant among his Milanese," he complained.

"Is money not something?" I suggested teasingly, for in those days we were on terms of something resembling good fellowship.

He shook his foxy red head. "Money is little, to me. I want power. I want wills to be bowed to mine, cities to rise or fall at my lifted hand, great men to go on missions here and there with my words and wishes upon their lips. I want the oceans to shake with the passage of my ships, the continents to vibrate under the marching feet of my armies. I want to rule!"

"Money rules," I reminded. "Look

at Lorenzo. The founder of his house was a druggist, a simple maker of pills. Yet, by the accumulation and the wise use of gold—"

"Gold!" snorted Guaracco. "It buys food, clothes, wine, music—but of what value is it, save to attract thieves? It was powerful with the Medici only through generations of careful planning, and I cannot wait so long. Cold steel is the better metal, if held by a brave man and ruled by a wise one."

I began to appreciate something of the ambition that stirred this charlatan-genius.

"I followed sorcery from boyhood," Guaracco went on, "because, at first, I believed in it. As you yourself once put it, a true sorcerer could travel winds, chain lightnings, know and rule the Universe. Even when I found that supposed enchantments were but a fraud, I remained a student and practitioner of the false art—and I have won some rewards.

"You saw my coven of deluded witch-worshippers; they serve me in many ways, because of fear or awe or fascination, that they would never dare if I offered them only gold. Too, a great many nobles and merchants respect and fear me because I seem to foretell events, can cast horoscopes, and apparently summon devils. And one or two are well within my power. I gave a certain man poison, for instance, to serve a certain other man. That certain other man owes me both gratitude for the vengeance, and fear lest I betray him."

"But now you follow true science," I said. "You told me so."

"Science—and sorcery of a kind."

I shook my head. "There is no such thing as sorcery."

"Is there not? Come with me."

ONCE again I accompanied him to his house nearby. The front room was changed, in that there was a massive square table with a thick velvet covering extending to the floor on all sides. In its center stood a great bowl of silver-coated glass.

Guaracco drew the heavy curtains, so that it was quite dark in the room, and lighted a candle. Then, at the clap of his hands, the two dwarfs entered with a great ewer of water between them. From this Guaracco filled the bowl to the brim.

"Look into it, Leo," he bade me, as the dwarfs departed.

I did so. "What then?" I challenged him. "Here is a simple basin of water."

"You are sure of that?" he persisted. "Thrust in your hands and convince yourself."

Again I obeyed him. It was water, sure enough, and beneath it the surface of the bowl was smooth and normal.

"I see no wonder," I said to Guaracco.

"What did you expect to find in that bowl? The face of Lisa?" And he laughed. "Favor me, kinsman, by blowing out the candle."

I blew it out. The room fell all dark at once. No, not all, for a faint filtered glow came up from the bowl of water.

"A chemical trick," I pronounced immediately. "You have put phosphorous in there."

"Did you not see the water poured from pitchers?" he asked. "But I make no argument. Look into the bowl again."

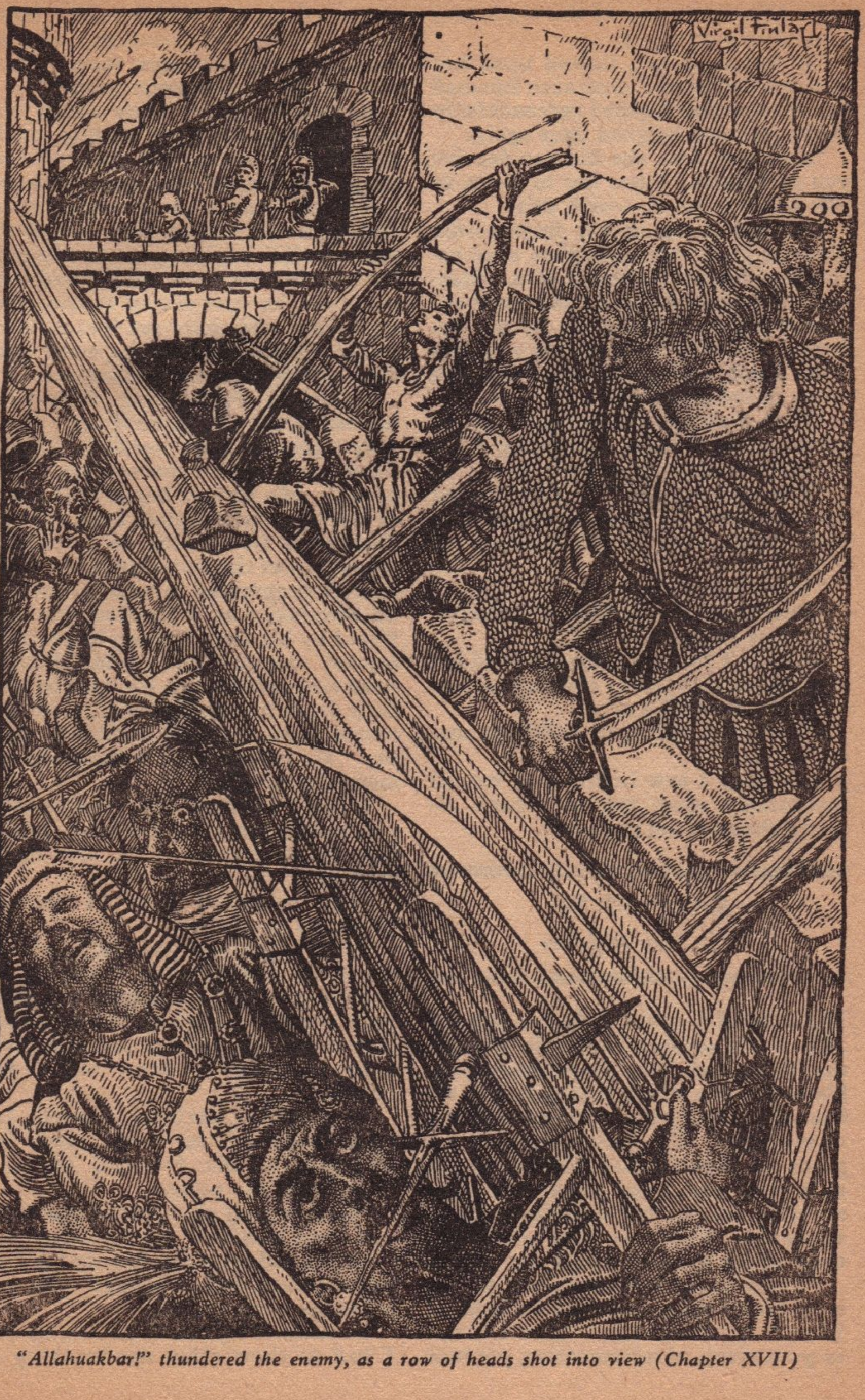
As he spoke, he put in his own hand and stirred the liquid into ripples. I saw nothing but a disturbed surface, like a tiny ocean in a gale, with light beneath. Then the ripples grew less, slowed, finally departed. I gazed deep into the radiant water.

From its bottom a face looked up at me.

Lisa!

I think I spoke her name aloud, and put forth a hand to touch her forehead. But my finger only dipped into water, and Guaracco laughed his familiar mocking peal.

"You were deceived, for all your assurance," he taunted me. Quickly he moved to uncurtain the windows, letting in light. "See, it was simple. I arranged it an hour ago to mystify one of the Milanese. A hole in the table, a glass bottom in the bowl—and, under the velvet, a couch whereon Lisa lay with a light beside her—"



"Allahuakbar!" thundered the enemy, as a row of heads shot into view (Chapter XVII)

He lifted a corner of the cloth, and Lisa slowly emerged.

"It was as if you looked upon her through a window," Guaracco summed up. He saw that I gazed reproachfully at the girl, and laughed once again.

"Now nay, Leo, she did not deceive you of herself. I put her to sleep, as you know I can do—with this."

He held it up in his fingers—the glowing pearl that more than once before had drawn forth my wits. Staring at it unguardedly, I felt myself ensnared before I could set up my defense. He caught my elbow with his other hand, easing me into a chair as mists closed about me.

When I awoke, Guaracco sat at the velvet-covered table, scribbling hastily upon a tablet of white paper.

"You will rejoice," he said, seeing my eyes open. "I took opportunity to open again that closed memory of yours."

"What this time?"

"Details of the machine you forgot. The time reflector."

At once I lost my resentment of his sly assertion of power over my senses.

"Full details?" I cried.

"Enough, I think, to build the machine itself."

And then I saw Lisa's eyes, turned mournfully upon me, as though already she bade me good-bye.

CHAPTER XII

The New Reflector

EVEN if I could, I do not think I would set down exact details of a machine which is so apt to cause trouble as the one which Guaracco had retrieved in theory from the waste places of my mind. The fact is, he kept the plans to himself, and questioned me only now and then, sometimes hypnotizing me for the questions, sometimes not. And there were bits of science which even he could not digest.

"These exact measurements of the steel frame parts, how can we achieve them?" he would ask. "You tell me, in your sleep, of micrometers, yet how can we design a micrometer? How, even knowing its principle, can we make it without proper tools? How was the first micrometer made?"

Automatic lathes, alloy charts and welding torches were equally unobtainable. Guaracco did the next best thing. He sought out a master swordsmith and in some adroit way—I think his witch-cult helped him—bound the fellow to his service by terror and awe. This craftsman, with all his tools and materials, he transported to the country estate, and there set him to work painstakingly shaping the metal skeleton of the reflector mechanism.

Electrical engineering Guaracco learned from the ground up. Here, once again, I must needs be hypnotized and my subconscious mind probed. My partner began with sticks of sealing wax and glass rods, rubbing them with fur or silk, and studying the effects of the static charges. From that he progressed to what I was able to remember as a Leyden jar, contrived by his own cunning hands after several unsuccessful trials. Finally came simple batteries, but here he kept back from me the knowledge he had mined from my own inhibited memory. He refused to tell the acids and metals involved.

When I insisted, interruption came—a messenger from Lorenzo, asking how I progressed with the flying machine.

"You reminded him," I accused Guaracco in private.

"How ungrateful you are, Leo!" He snickered unabashedly, fingering his red beard. "Go to Florence and make your report. I shall work here in our laboratory, and promise you that I will have progress to show when you return."

To Florence, perforce, I went. Lorenzo received me with some impatience, in his frescoed audience chamber at the palace.

"Well, young sir, what of the wings you were making?" he demanded. "I gave you and Guaracco money for your experiments, and it is high time you made me some return."

I exhibited my small models, all that I had to show since the breaking of

my first wings. He was interested, but not completely satisfied, and I regretted having mentioned aviation to him. Yet, I knew, men could fly. I remembered seeing them, in that age whence I came and which itself was yet to come—men flying singly or in parties with the aid of great spread-pinioned contrivances.

Meanwhile, Lorenzo was giving me orders.

"I shall see this device take shape under my own eyes. At my villa in Fiesole is a great guest house. Go you thither, set up your shop, and have sent to you all that you need. Work where I can watch."

I bowed acceptance, and went to Fiesole. There messengers brought me the remains of my wings and rudder, also more leather, silk and staves, while Lisa came at my urgent plea to help with the sewing. She made a considerable impression on the various guests who thronged Lorenzo's villa. Botticelli wanted to paint her, Poliziano wrote six sonnets about her, Giuliano spoke so courtly to her that Simonetta's eyes took on a green glow, and to a certain captain of mercenaries, a Spaniard named Hernando Villareal, I was forced to voice a warning.

"THE young lady is working on my machine," I told him, "at my wish and under my protection. She does not welcome your pressing attentions."

"By God's blood," he sneered. We were walking in a grove of poplars, to which I had drawn him for privacy. "I think, Ser Leo, that it is you who find the situation unwelcome."

"I do not like it either, if that will content you."

He caressed his long moustache of black silk. "Now nay, it does not content me a whit. I shall say to her what I please, whenever I please."

"Few words are best," I made reply. "If you speak to her again, I shall deprive your company of its captain." And I turned and walked away.

He was in a towering rage, and made haste in search of a friend to bear me a formal defiance. The first he met was Giuliano, who had not forgotten the cudgeling I had given him, and the friendship he had sworn. Giuliano informed the Spaniard that I was the most dangerous antagonist in Christendom, in whose hands a wand was worse than a sword, and a sword itself a finger of Fate. Whereat Captain Hernando Villareal left Fiesole the same day, indeed left Florence, and I never heard speak of him again.

When my wings were completely repaired and improved, I made a second attempt, springing from the eaves of the guest house while Lorenzo and his friends watched. Again I failed badly, tumbling aslant through the air, but this time I managed to land upright on my feet, only spraining my ankle. My wings and other harness remained undamaged, and I was not distressed by Guaracco's ironic laughter.

"I count myself lucky," I said, and Giuliano ran out to support my limping steps. "My ankle will mend of itself. But my wings, being broken, would take much more labor and time."

"You have not a complete loss of labor to show," Lorenzo was considerate enough to say. "You came to ground a good ten paces beyond the house, farther than you might have leaped unaided."

"And had you leaped without wings you would have had worse hurt than your ankle," added Giuliano, though he had first disputed my theory of man's ability to fly. "For those two moments you were above ground, methought I saw your fabric hold you aloft. It broke your fall, at least."

This encouragement heartened me. "I shall yet succeed," I made bold to say, while a physician plucked the shoe from my injured foot. "It is not the fault of my theory, nor the weakness of my arms. I must learn, as a fledgling bird learns."

But my sprained ankle kept me for days at Fiesole, where I could practice no art save lute playing and repartée among those silken courtiers. Lisa insisted on remaining with me, most prettily concerned over my injury. After a day or so Guaracco appeared with some of his healing salves, to care for me with the apparent solici-

tude of a kinsman, to bow and utter compliments to the ladies, to discuss poetry with Poliziano, weapons with Giuliano, science and government with Lorenzo.

"I submit that my young Cousin Leo makes progress with his flying," he told the company. "Who can hold these first failures against him? Can he learn as a science, in a few days, the behavior that has been a born instinct of birds since the Creation?"

WITH more such talk, Guaracco helped to convince Lorenzo that I should continue my labors in the field of aviation. I came to realize that it was to Guaracco's interest that I do so. He wanted me to stay out of his way. He was carefully arranging that I not re-learn too much of the science I remembered only when in a trance.

The rest of that summer I was able to put off a third experiment with my wings—not that I did not want to fly, but that I dreaded failing and falling again before the eyes of my patron. During the winter I achieved several substitute offerings. These included a plan for draining some nearby swamps, which Lorenzo approved but did not act upon at once; a brief written outline of a new system of sword play for the palace guardsmen, which Lorenzo in high good humor caused me to demonstrate upon two very surprised and glum fencing-masters; and a suggestion, rather vague, about the use and purpose of antiseptics, at which Lorenzo laughed and which I could not demonstrate at all.

I made several attempts at fashioning both a microscope and a telescope, but I did not understand the accurate grinding of lenses, and nobody was skillful enough to show me. Also, even when I secured from Andrea Verrocchio's spectacle maker a pair of indifferent lenses that would serve, I could not bring them into proper relationship in a tube.

One thing I remembered well from my century, or rather the one before it, was Mark Twain's pleasant novel about the Connecticut Yankee in King Arthur's court. I was failing signally to duplicate the exploits of that hard-headed and blithe hero. Perhaps the Yankee, being an adroit and impassioned mechanic, knew the principles of all things from the ground up.

My science, first of all, had been sketchy and too derived. Second, I had been too interested in art, so that my less loved studies in chemistry, engineering and physics had been shoved too far back in that now clouded brain of mine. Without Guaracco's hypnotism, hardly anything of real complex practicality could be evoked. And with Guaracco's hypnotism, I was unable to see or appreciate the very things I was caused to remember.

Poor Andrea Verrocchio, who had hoped for so much from my drawing, dared to shake his untidy head over these scientific gropings of mine.

"His Magnificence will ruin a master painter to make a convenient philosopher," he mourned. And it was true that I had little or no opportunity that winter to paint the picture I had once visioned as my footprint in the sands of Renaissance time.

As for the time reflector, which Guaracco worked on with phenomenal energy and understanding, it took form and power as the cold weather passed us by. Among the things it lacked was a piece of alum large enough to make a lens, but the most notable alum mines of our knowledge were not far away—fifty miles to the southwest in the ancient town of Volterra.

At that time, however, the Volterrans chose to refuse any trade or tribute to Lorenzo; even to defy him. It began to look as if the only alum we could get must be secured by theft or force.

CHAPTER XIII

The Fate of Volterra

HERE was, indeed, what seemed a full stop to our hopes for completing the mechanism. I could think of nowhere to get alum in a large

enough portion but in a mine. True, crystals may be built or fed, but I did not know how; and the only available mine was the one at Volterra.

That defiant city was a small one, but plucky and proud, with splendid defenses. As I mused, into my mind drifted a few lines of a poem I had heard very often in my other existence:

> . . . lordly Volterra
> Where stands the far-famed hold,
> Piled high by hands of giants
> For god-like kings of old.*

Whether Volterra's defenses were giant-built and god-begun I cannot say; but they were tremendously old and strong, what I was to see of them, walls of rough-cut stone that were said to go back to ancient Etruscan times. The city thus enclosed stood upon a huge olive-clad height, from which the sea was visible, a score of miles distant. Near at hand opened the dark mouths of the alum mines which were so suddenly forbidden to us. In fact, the Volterrans forcibly ejected certain Florentine commissioners who claimed a tribute for Lorenzo.

His Magnificence undoubtedly meant what he had once told me about wishing to avoid war as costly, dangerous and ignoble. But this was too loud a challenge for even his considerable patience. In the spring of 1472 he called a meeting of the Signoria—the lot-chosen body of citizens who acted as public council—for discussion of the problem. It so happened that Guaracco himself, a Florentine resident by virtue of that house near Verrocchio's *bottega* was a member of this jury-like group of governors, and present at the meeting.

I, too, would have liked to attend, but it was impossible. Lorenzo had called for a secret session—proof of his concern over the matter. All I knew was that one of the Signoria, a conservative old fellow by the name of Tomasco Soderino, was intending to speak strongly for conciliation and peace. Perhaps he could restore friendship with the Volterrans, make it possible for me to secure my alum.

I wished Lisa were there, to talk serenely and pleasantly to me. But with Guaracco's permission she was visiting a friend, the abbess of a convent near Venice.

The meeting lasted all morning, and all afternoon, and at the end of it Guaracco came to seek me at Verrocchio's.

"It is all settled," he informed me, grinning triumphantly.

"Settled?" I repeated. "Peace, you mean?"

"War," he replied. "We take your needful alum by force."

I felt a little shocked. "But Soderino was going to—"

"Aye, and he did," Guaracco anticipated the end of the sentence. "Bleated about soft answers to turn away Volterran wrath, bleated for hours. I had an answer ready. I told Lorenzo that we could not make your flying machine without alum, and plenty of it."

"Alum is not for the flying machine," I protested, "but for the time reflector."

He gestured idly with a big hand. "Do you not think I know, boy? But we need alum, and what matter under which pretext we get it? Lorenzo is obsessed with desire to see men fly. My word was the final ounce in the balance to make him decide for war."

After that, things moved fast in Florence, because word arrived that the town of Volterra had employed a round thousand tough mercenaries to defend her ancient walls. Lorenzo immediately gathered four times that number of troops, and as their commander engaged Federigo d'Urbino, one of the most noteworthy soldiers of the Italian peninsula.*

HE did not deign to take command himself, and restrained the younger and more fiery Giuliano from

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* These lines are from "Horatius at the Bridge," by Thomas Babington Macauley. The alum mines referred to are still workable.

* This famous general of mercenaries later commanded an army that fought against Lorenzo. War, to these soldiers of fortune, was a game and a business. There was no more lasting enmity between such mercenaries than there is today between lawyers who may have opposed each other in lawsuits.

volunteering to lead the mounted lancers. But the brothers did lead the force in procession through the chief streets of the city.

To me that glittering sepectacle was somehow ironic. The cavalry was, for the most part, French and Navarrese, the pike-trailing infantry largely Swiss and Swabian, the crossbow companies from Sicily, the artillery and seige train Spanish, and the whole cosmopolitan host sprinkled here and there with Scots, Hungarians, Englishmen and Moors.

If any element was really missing, it was Florentine.

Yet that was the way the city-states of Italy fought—not with their own blood, but with professional adventurers. Perhaps something can be said for the system. Battles lacked the extreme ferocity of deadly enmity, for opposing generals were often old friends and comrades in arms, who were willing to win or lose, so to speak, on points. At any rate, the Florentine shopkeepers and artisans seemed pleased, and cheered those foreign soldiers as loudly as though a force of native Tuscans was marching away to war.

Guaracco, as leader of the party that advocated strife, went to the palace for permission to accompany the mercenaries. I was with him as he found Lorenzo, writing busily at his desk in the audience chamber.

"Go if you will," the ruler told Guaracco, without raising his eyes from the page. "I trust that this campaign is final."

"You mean, destruction of Volterra?" prompted Guaracco, like a lawyer wrenching an admission from a witness.

Lorenzo seemed to hear him only by half. "That physician is often most cruel," he murmured, as he resumed writing what looked to be a verse, perhaps a sonnet, "who appears most compassionate."

To this moment I am sure that what he said was being fitted into his poem, and had nothing to do with the campaign. Even if I am wrong, it was a most equivocal answer. But Guaracco bowed as though he had received specific and welcome orders. Then he hurried away.

Perhaps I should have gone with him then, but I had no stomach for battle. I felt some uneasy guilt because with Federigo d'Urbino's train of seige ordnance went my multiple-cannon arrangement for battering down walls, and many of the crossbowmen carried weapons with Guaracco's lever improvement which I had clarified in a sketch.

A day I lingered in the town, which buzzed with excitement about the campaign. A whole night I lay wakeful in the cell-like room I still kept at Verrocchio's *bottega*. Something indefinable made me woefully nervous. Dawn had barely become bright before I dressed, drew on thigh-boots and leather riding-coat, girded myself with a sword and hurried to where my gray horse was stabled.

It was as if a voice called me to Volterra.

Yet, for all my strangely risen anxiety, I could not ride my poor horse to death. I did no more than thirty-five miles the first day, stopping the night at a peasant's hut. When in the morning I continued, before I had ridden an hour I met another horseman, galloping in the direction of Florence. He was a half-armored French lancer, with the velvet-edged sleeves of an under officer. Also, he was three-quarters drunk, and waved a grubby wine bottle at me.

"Way! Way!" he bawled. "I bear messages to Lorenzo!"

BUT I spurred forward and managed to seize his bridle.

"Tell me," I said earnestly, "how goes the fighting at Volterra?"

He started to laugh, and finished by hiccoughing. "Fighting?" he echoed scornfully. "Now nay, there was no fighting."

"How's that?" I persisted.

"We marched under the walls of the town, and b a d e them surrender. And"—he broke off to swig wine—"and they did!" More gulping laughter over something he deemed a joke. "Now, let me ride on with my dispatches, young sir."

"One word more," I begged, but he struck at me with the bottle.

It was of stone, and heavy, but I flung up my forearm to save my head and sustained only a musty drenching. With a prick of the spur, I forced my gray horse close against his mount, shifting my hand from his bridle to his collar, and with the other hand I wrenched the bottle away from him.

"Why is the army not returning?" I demanded, and shook him hard.

He lost his fierceness, but not his joy over what had happened.

"You cannot guess?" he flung back, with a soldier's contempt for one who does not understand military routine. "The lads are plundering. What else? So should I be plundering, if—"

I pushed the wine bottle back into his fist, and let him go. With whip and spur I sped on my way.

But when I arrived I was too late, even if I had had the power and knowledge to divert that misdeed.

Volterra gushed flame from within her walls. Around the town capered the victorious troops, some of them drunker than the courier I had met, others staggering under burdens of loot. Even from afar I heard yells and laughter. The camp, a great field of tents beneath the hill that supported the town, was almost deserted, and into it I spurred. By chance I came almost at once to the commander's pavilion and there I found Federigo d'Urbino, sitting alone.

He slouched forward on his folding chair, his long, black-tufted chin clutched in a hard hand. His face was as somber as his armor was bright. He glared up as I swung out of the saddle.

"You come with dispatches from Florence, I make no doubt," he growled. "Ride back and tell that blood-drinker, Lorenzo, that I will never draw sword for him again, not if he seek to buy me with all the treasure of Croesus."

"What is this drivel?" I snapped back. "Is not this atrocity your bidding?" In my revulsion, I forgot that I was calling to account the foremost soldier of the peninsula. But he only shook his head.

"Not my bidding. Lorenzo's. I—I have a reputation as a gentleman and a merciful Christian."

"To be sure it was Lorenzo's bidding," said a voice behind me, a voice that often had a way of breaking in on conversations. "You, my dear young Cousin, heard Lorenzo speak to me, give me a message."

I whirled upon Guaracco, thrusting my angry face into his.

"You dared order this pillage and destruction, as though you were Lorenzo's agent?"

"Aye, that," he admitted with the utmost good cheer. "You can bear me witness before Ser Federigo. His Magnificence was plain: 'That physician is often most cruel—'"

"So you interpreted his thoughtless speech, you murdering dog!" I almost choked, and out of my scabbard I swept my blade. "Draw, before I cut you down and rid Earth of your eternal deviltry!"

The red beard rustled in his old smile of mockery. "I have no sword,

[*Turn Page*]

Leo," he said, as though in chiding reminder. "I bear only—this."

FROM under the fringe of his mantle his hand stole into view, with his self-invented pistol ready cocked. Even at that, I might have fallen upon him and forced him to shoot, perhaps killing me, but Federigo d'Urbino, who did not recognize that deadly little weapon for what it was, sprang up and caught my arm.

"Do not add one more murder to this massacre, young sir," he begged me. "It is possible that Ser Guaracco truly misunderstood. Yet—" he turned away. "Somehow I must stop these fiends at their hell's work."

Left alone with me, Guaracco stepped warily out of my reach, pistol still leveled. "It is true that I urged Lorenzo's words upon the army, and it was none too loth to sack the town. I have even taken a piece of loot myself. Come and see."

At some time during that speech he had brought his other hand into view. Something gleamed softly and slyly between thumb and finger—his great lustrous pearl, full of spells.

I fought against its power, as against a crushing weight, and indeed I did not lose my wits. But I grew tremulous and vague of thought, and let him coax me to sheathe my sword.

"Come and see," he repeated, and I went with him, slowly and a little drunkenly, to a tent not far from the commander's.

And there he showed me what he had seized from some Volterran shop or warehouse. A great soapy block of alum, reflecting subdued gray and blue lights, lay upon a length of canvas. It was almost exactly cubical, and a good yard along the edge.

"I knew that I must get hold of this piece," Guaracco told me, "and so I passed on Lorenzo's orders. You must not blame me, Leo, if I show scientific zeal."

Some worse motive had really caused him to start the cruelties, but I gazed at the greasy-looking crystal, and its light seemed to drive out some of his spell. In it I saw even a gleam of hope. It would help me to a completion of the time reflector. Then I would be quit of the Renaissance, its frustrations and fantasies. Above all, I would be quit of the abominable Guaracco.

CHAPTER XIV

Almost—

NOW, if ever, I can offer proof that this is not fiction. If it were, and I were the hero, I would have tried to slaughter Guaracco there in the camp before sacked Volterra, despite his triumphant exhibition of the mammoth alum-crystal, despite his ready explanations, despite the pistol he kept ready in his hand. That would have been the honorable, the courageous, the dramatic course.

But it happens that the story is true, and that I was, and am of human clay. For two years, Guaracco had alternately intimidated and cajoled me, with judicious applications of hypnotic influence. My ultimate emotion was only one of hopeful relief. If this be shameful, make the most of it.

We left the camp together, almost like friends, with some peasant attendants and a two-wheeled cart to carry the piece of alum. We did not go directly to Florence, but sought a rather rough road that took us around and then to Guaracco's house. There we placed the alum, with infinite care and numerous helping hands, in the cellar workshop.

Guaracco assuredly knew more about grinding lenses than I did. Probably it was one more Twentieth-Century science he had developed from his hypnotic interviews with my subconscious self. Too, the alum was a larger and softer piece of raw material than the fragments of glass I had worked with. In one day he roughed it into shape, and in two more, with the help of the swordsmith, he made of it a perfect double-convex lens. This, two feet in diameter, was a gray-gleaming discus that dealt weirdly with light.

At length the time came for the ma-

chine to be assembled. We took our place in the same upstairs chamber from which, in that Twentieth Century which would now reclaim me, I had vanished; the same where my friend Astley waited, at my direction, prepared for my return.

I helped to bolt the rods into a framework, and lifted into place Guaracco's battery, a massive but adequate thing inside a bronze case worked over in strange bas-reliefs.

I think that case came from the Orient. It was to do the work I had done with many smaller batteries in my first reflector. Into sockets fitted his electric light globes, most cunningly wrought—again by Guaracco, in secret.

"They are not the best," he said. "I understand," and he smiled wispily, as always when he referred to his findings through hypnosis, "that an element called vanadium is the best for the filaments inside."

"It is more than the best—it is necessary," I pronounced. That much stuck in my mind.

He shook his head. "I have used manganese. That, I have come to believe"—and again his wispy smile—"is almost as good. Obtainable, too, as vanadium is not." He cocked his lustrous eyes upward. "Did you not once predict, my dear adopted Cousin, that a Genoese friend of the Vespucci family—Colombo—would discover a new world in the west?"

"I did."

"And is not vanadium to be mined in those latitudes? . . . Just so. But not elsewhere. We must make this substance serve."

He studied the camera apparatus, slipped the lens of alum into place and secured it with clamps. Then he set the time gauge.

"May first, nineteen thirty-nine," he said aloud. "And so much allowance for the coming change in calendar which you predict. It was on May first, nineteen thirty-nine that your friend was to bring in a carcass from which your structure would be reapproximated, eh?" He straightened up from his tinkering. "Now, Leo, do you wish to say good-by to Lisa?"

I HAD not forgotten her; rather, I had fought against thinking too much of this sweet, restrained girl whom I refused as a gift from Guaracco, but to whom my heart turned in spite of all. His speaking her name wakened certain resolutions I had made. I left the room immediately.

She was lingering in the upper hall just outside the door, dressed in a girdled gown of blue, and a bonnetlike headdress. Her dark eyes gleamed like stars—they were filled with tears.

"Lisa!" I called her, in a voice I could not keep steady. "Lisa, child, I have come to say—to say—"

"Farewell?" she tried to finish for me, and her face drooped down into hands. I could not but catch her in my arms, and kiss her wet cheeks.

"Don't cry," I begged her. "Don't, my dear. Listen, while I swear to come back, to hurry back—"

"We shall not meet again," Lisa sobbed.

"I will come back," I insisted. "Since this second machine remains here, it will take us eventually into the age from whence I came, and then—"

"Us," she repeated, trying to understand.

"I will rescue you from this century, and this fantastic world and chain of sorrows," I promised.

Guaracco cleared his throat. We looked up, and moved apart, for his head was thrusting itself around the edge of the door.

"Lisa," he said, "I leave certain preparations in your hands. At this time tomorrow, bring into the room with the machine a slaughtered calf—"

Turning from the girl, as Guaracco continued to talk, I hurried into the room and closed the door behind me. I saw that the power of the machine was turned on, the light gleaming blue-gray through the lens, the misty screen sprung up in the framework. Once passed, it was 1939 beyond. . . .

And then I saw that Guaracco was removing the last of his clothes.

"What does this mean?" I demanded of him.

He confronted me, a naked figure of baskety leanness.

"I have decided to make the journey

through time instead of you."

"But I—" The words broke on my astonished lips.

"No arguments," said Guaracco. "It is too late." And he sprang into the midst of the framework, and through the veil of fog.

For a moment I saw him beyond in the room, as fragile as a man of soap-bubbles, less than a ghost. I gazed, waiting for him to fade away completely. But his substance thickened again, took back its color. I saw the pink of his skin, the red of his beard, the gleam of his abashed eyes. He staggered on the floor, as on the deck of a ship. He was still in his own age. The reflector was a failure.

I laughed triumphantly and almost jauntily, and half sprang at him. But he slumped down on a chair, still naked. So much gloom had fallen around and upon him that part of my anger left me. My clenched fists relaxed, my denouncement stuck in my throat. He had tried to trick me, to shove himself into my own age at my expense—but it had not worked. I only paraphrased Robert Burns.

"The best-laid plans of mice and men," I taunted, "go oft astray."

HE looked up and stared at me for a full minute—yes, at least sixty seconds—before making any reply.

"I can understand your feelings," he muttered then, as humbly as a child caught in a jam closet. "Once more, I thought, I had tricked my way ahead of you. But I reap the reward of my sinful vanity."

I was amazed. This was nothing like Guaracco. "Do not tell me," I jeered, "that you repent."

His hand wrung the point of his beard. "Is it not permitted the proudest and foulest wrongdoer to say that he has done ill?" His head bowed almost upon his bare, scrawny knees. "Leo, let me make my poor excuses. My heart was full of zeal for what I should behold and learn, five centuries in the future. It would be to me what heaven is to the true churchman. And now, without even a glimpse—"

At last he rose. He held out a trembling hand. He seemed suddenly grown old and frail.

"Do not laugh or reproach. I have been deceitful, but let me make amends. We shall be true scientists and philosophers together. Will you not forgive, and take me as your friend?"

I could not exult over so patently broken an adversary, and his manner of earnest humility disarmed me. I took his hand. At once he straightened up, and his voice and bearing captured some of the old sprightliness.

"That is better, Cousin Leo—for we are kinsmen in taste and direction, at least. What wonders shall we not wreak together! The world will hear of us!"

As he spoke, a commotion and the sound of an excited voice came from below us. I, being dressed, ran down in place of Guaracco.

Sandro Botticelli stood facing Lisa. He was mud-spattered and panting, as from swift riding, and his plump, pleasant face full of grave concern.

"Leo," he said at once, "I risk my career, perhaps my life, in warning you. Fly, and at once!"

"At once?" I echoed, scowling in amazement. "Why?"

He gestured excitedly. "Do not bandy words, man," he scolded me. "Begone, I say! Lorenzo has signed a writ for your arrest. You are a doomed man."

My mouth fell open, it seemed to me, a good twelve inches.

"It is because of what happened at Volterra," Botticelli plunged on. "That town was sacked because of you. Lorenzo wanted alum, for your flying machine."

"Aye, and I got alum—"

"But you did not make a flying machine with it. Criticism has flamed up over the treatment of the Volterrans, and Lorenzo needs a scapegoat. When Guaracco informed him that you had used it deceitfully, for another purpose—"

"Guaracco!" I roared.

I saw his plan now, to usurp my place at the time reflector, leaving me to imprisonment, perhaps death,

on a trumped-up charge. I took a step toward the stairs, for I wanted that scoundrel's blood.

But Botticelli came hurrying after me, and caught my arm.

"I hear galloping hoofs, Leo! The officers are coming. Run, I tell you! Run!"

At that moment the door burst open and two officers rushed in.

CHAPTER XV

Santi Pelagrini

DELIBERATELY I gazed at the men who had entered so unceremoniously.

"You are officers?" I demanded. "You are to arrest me? Where is your warrant?"

"Here it is."

The chief of them drew his sword. I was unarmed, having laid aside even my dagger for the attempt to pass through time. Resistance was useless, and I spoke only to save poor Botticelli from possible punishment for riding to warn me.

"You will get no reward, after all," I addressed him with simulated spitefulness. "These gentlemen will take me to Lorenzo, not you. It's well for you that they came. Your effort to arrest me might have wound up in your getting hurt. I advise you to stick to paint daubing, Ser Sandro, and not to play catchpoll again."

He stared at me in pained surprise, then in grateful understanding. I walked out, closely guarded by the patrol, and was mounted upon a spare horse. Then we started—but away from Florence.

"Did not the Magnificent send you to seize me?" I demanded of the leader. "Take me before him, that my case may be heard."

They did not reply to that, or to other demands. We went southeast, mile after mile, leaving the good main road for shorter and rougher stretches. Once again I asked where we were going and what my fate would be, and once again I was unanswered. We stopped that night at a little house where a grape grower gave us bread and cheese and wine, and subsequently shelter. I slept in front of the fireplace, with the men standing watch over me in turn.

By mid-morning of the next day, we rode into the seaport of Rimini, and straight to the stone wharfs. The leader of our party sent a messenger to call ashore the captain of a small lateen-rigged ship riding close in at anchor. He talked aside with this captain, and gave him an official-looking document. Then I was taken from my horse and led forward.

"Go with this ship master," ordered the chief officer.

I protested loudly, and one of the officers gave me a rough shove. Next instant I had knocked him down, and the instant after that the others had swarmed upon me, throwing me to the stones of the wharf and pinioning me.

Before I was put into a skiff to go to the vessel, irons were procured—broad, heavy cuffs, connected by a single link and fastened with coarse locks, and clamped upon my wrists. There was no further sense in resistance. I was rowed out, hoisted to the half-deck, and placed in a closetlike compartment off the captain's cabin. We sailed at noon.

The captain did deign to tell me a little of what was to befall.

"You are ordered to imprisonment, sir," he said, "at the *Fortaleza degli Santi Pelagrini*—the Fortress of the Holy Pilgrims."

I have never heard of it,* and said so.

"It is a great grace and service to heaven," the captain elaborated. "Holy men built it, two good centuries gone, for an abbey. But the heathen Turk, who flouts true belief and seeks to conquer us all, has taken the coastline, all save this fortress alone. Because we would hold our own, even in the teeth of Islam, it is garrisoned by the Holy Pilgrims."

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*This Fortress of the Holy Pilgrims must have been located off the coast of Albania, which country was almost entirely overrun by invading Turks during the Fifteenth Century, though no record of it seems to exist, nor any concerning the Order of the Holy Pilgrims.

He told me about the Order of the Holy Pilgrims, as well. They were military monks, not powerful or high-born, like the Templars of the Knights of St. John, but simple monks, armed and trained to fight. As he described them, they had been originally a band of common soldiers who, reaching Jerusalem at the high tide of the Crusades, forsook the world and entered the church. After the ousting of the Christians from the Holy Land, they had survived and fought on, and now stubbornly defended the island on which their fortress-priory stood.

AND they were to be my jailers. It did me no good to protest my innocence and my right to justice. Lorenzo's anger, stimulated by the lies of Guaracco, had caused him to doom me thus to imprisonment and forgetfulness without benefit of trial. He or any other ruler of the time was able to do so, putting away a man as easily as he might put away a book or a suit of clothes. I could be thankful that he had not executed me. Or could I?

Five days were sailed before a light breeze, south and slightly eastward over the waters of the Adriatic. I was not permitted to go on deck, but there was a latticed port, and I saw as quickly as any lookout the two rakish galleys, with crescent-blazoned banners, that gave us chase on the fifth day.

For awhile it was a close race, and I thought that I might soon exchange my enforced idleness in the little cabin for labor at a galley oar. Then guns spoke to our front, a cheer went up from our sailors, and we drew nigh to the defending shores of the island where stood the Fortress of the Holy Pilgrims.

I was allowed on deck at last. I saw the island as a rocky protuberance from the blue ocean, its flattish top green with growth, and but a single landing place—an arm of the sea, extending almost to the foot of the great square-towered castle of gray stone that dominated all points of the rock. A boat was put off, with myself, the captain, and some sailors to row us. I could see, afar off, the sullen Turkish galleys.

We came to the mouth of the inlet, and found that it bore two great lumpish towers of masonry, one at either brink, for the stretching of a chain if enemy were to be held off.* A skiff came forward to meet us, rowed by two tanned, shaven-headed men in black serge robes. A third stood upright with his foot on the thwart, a crossbow ready in his hands. Its cord was drawn and a bolt ready in the groove.

"Who are you?" he called in a clear, challenging voice.

"A Christian vessel, with a message and a prisoner for you," replied our captain. A jerk of the crossbowman's shaven skull granted us leave to enter the inlet. I could see that the monks of the fortress wore each a symbol on his breast—a black cross, outlined in white, with a white cockle-shell at the center, emblematic of the church and pilgrimage. The two boats rowed inland to a dock of massive mortared stones, where we landed.

One of the monk oarsmen went swiftly ahead with the papers the captain had brought, while the rest of us mounted more leisurely the paved slope that led to the great gate of the castle. I looked to right and left, on the outdoors which I might well be leaving for a term of years.

There were some goats in a little herd; a series of rock-bordered fields where monks with looped-up gowns were hoeing crops, apparently of beans and barley; an arbor of grapevines. And, at the few spots where the steep shores relented enough to allow one to reach the seaside, parties of fishermen seined for sardines or speared for mullet.

The big gateway of collossal timbers, fastened with ancient copper bolts, stood open and allowed us to pass through a courtyard. Inside stood a row of black-robed men, armed with spears, apparently taking part in a most unpriestly military drill. They

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* This chain defense for a harbor or landing was long a favorite with fortresses. As late as the American Revolutionary War, the British were prevented from coming up the Hudson River by a chain stretched across at West Point.

were all tanned, lean, and hard-faced, and handled their pikes with the precision and discipline of trained soldiers, which indeed they were. Into the castle hall we went, then down a corridor, and to a plain, windowless cell, lighted by a candle.

"Father Augustino!" respectfully called the monk who had conducted us.

SOMEONE moved from behind the plain table of deal planks and stood up to greet us. He was a gaunt, fierce man, who wore a robe and symbol in no way differing from the others, yet I knew at once that here was the master of the priory.

His shoulders rose high and broad, so that he seemed a great black capital Y of a man, and his face, dark as a Moor's, was seamed and cross-hatched with scars. His nose had been smashed flat by some heavy blow, the right corner of his mouth was so notched that a tooth gleamed through, and his left eyelid lay flat over an empty socket. The sole remaining eye quested over us with stern appraisal.

The monk stood at attention, and offered the letter that the captain had brought. Father Augustino opened and read it quickly, then spoke, in the deep voice of practiced command.

"Go, Brother Pietro, and fetch Giacopo the clerk. He shall write to Lorenzo de Medici that this prisoner will be held here as he desires."

The monk made a gesture similar to a salute, and departed as briskly as a well trained orderly. Father Augustino faced the captain.

"Will you partake of our humble hospitality, my son?"

"Gladly, Holy Father," was the captain's reply. "I dare not leave my anchorage under your guns until yonder dog galleys of Mahound depart, in any case."

The notched mouth spread in a smile. "Nay, they shall depart within the hour. Our own war craft will see to that. We have two armed boats of our own, and not a Holy Pilgrim of us but is worth three of the best of the Turkish pirates, whose feet have fast hold of hell. I shall order a party out to battle."

He came forth from the cell that did duty as his office. I noticed that he limped slightly, and that around his lean middle, outside the gown, was belted a cross-hilt sword.

"Is this the prisoner?" he asked, turning to me. "Prisoner, I call upon you to repent your sin."

"I do freely repent all sins that lie upon my soul, Father Augustino," I replied at once. "Of the sin with which I stand charged before you I cannot repent, since of it I am entirely innocent. The guilty are those who falsely procured my imprisonment."

"He is a lying dog," grumbled the captain, but I thought that the scar-chopped face and single eye of the prior were lighted up, as though he approved of my boldness.

Then another monk arrived, with a sword at his hip and a half-pike upon his shoulder. At Father Augustino's order, he marched me away, upstairs and along a gallery above.

We came into a corridor lined on either side with locked doors, and full of a musty, sweaty prison smell. A porter, burly and black-gowned, unlocked a heavy door of planking for me and pushed me inside.

My cell was some six feet by ten, with a wooden cot at the inner end. Above this was a window, not more than a foot square, and blocked by two crosswise bars. The walls were all of uneven cut stone, the mortar scraped away around each for the depth of a full inch—the work of many an idle prisoner. There was a stool, a jug for water, a wooden refuse bucket. The door that clanged shut behind me had a wooden sliding panel, through which food could be given me or slops poured forth into a gutter.

When I stretched, my hands reached up to the ceiling overhead. And when I knelt on my straw mattress, I saw that my window was only a tunnel through seven feet of wall. I looked out upon a sandy shelf, and beyond that to the sea.

This was my home, for heaven and Lorenzo de Medici knew how long.

CHAPTER XVI

Captivity

FOR one reason alone I pass over the next six years in a few words. That is because those six years were empty—heart-breakingly empty.

I was not released from my cell, except for the reason I shall relate. I knew no passage of time except by the shifting of the sunlighted patch on my wall opposite the little window, and by the arrival, each noon, of coarse food in a wooden plate and water in a leather mug. This was the same fare, I make no doubt, as that of the monks who were my jailers.

On Sundays came a cup of wine, and I could hear the intoning of a mass. Then I would make a mark to denote a week's passing under the date which I had scratched in the biggest stone. These weekly marks added into months, and the months into years. I found myself pacing up and down, up and down, like a beast in a cage. To break myself of that frantic habit, I spent hours at calesthenic exercises which did keep me fairly fit, and at sketching with bits of burnt wood, and scratching pictures on the wall with the tongue of my belt-buckle.

My best effort was a Madonna, amusing her haloed Son with a flowery twig. As I worked thus I wondered if the picture would ever be seen by other eyes than mine. I decided that probably it would. The fortress was old, and might last for centuries. I might die in the cell, and another captive replace me, a captive who would look at the work of my hands and muse idly about the predecessor who had wrought thus.

Nobody spoke to me, not even the monk who thrust in my daily ration. And nobody watched me. In the summer of 1474, my second in the cell, I decided that escape was not impossible.

First I detached a leg of my bedstead, and with this as a lever worried the crossbars out of my window. They had been set in mortar, and had sharp points. Stealthily I began to widen the narrow aperture, working each night and restoring the bars by day, lest someone look in from the outside and bring my labors to nought.

After a month I decided my diggings adequate—but they were not. Trying to wriggle through I became jammed in the window tunnel, and there I was forced to stick until a goat-keeper, chasing his charges around the walls, happened to spy my protruding head. It took two muscular friends to drag me back into my cell, and I was marched between them to Father Augustino.

The prior spoke sadly upon my prideful and rebellious nature, urged me to pray for forgiveness and a softer heart, then sentenced me to a term of bread and water—and a flogging. When an attendant came with a knotted bundle of thongs and laid them like burning wires upon my bared back, rage swallowed my reason. A sudden jerk freed my wrists from those who gripped them, and I tackled my flogger, threw him heavily, and clutched his throat with both hands. Half a dozen of the Holy Pilgrims, as ready to battle as to pray, dragged me free before I could damage the whip wielder.

Father Augustino had watched the incident with an appraising light in his single eye.

"You refuse to be corrected," pronounced he, very coldly.

"Keep your lash for slaves!" I retorted passionately. "I will die before I submit!"

To my considerable surprise, he nodded understandingly. His eye danced a trifle, and his wide lips smiled, revealing other lean white teeth than the one which showed through the notch.

"Be it so," he granted, in a more human tone. "I remit the flogging. But you must be closer penned. Brethren, put him in the cell below his old one."

THEY did so. The new prison was smaller, and for bed had only a shelf under the window, spread with musty straw. The window itself was

cross-barred and looked out upon a face of hewn rock. This part of the fortress was below ground, and a foot-wide trench was all that gave me air and light.

Gloom and closeness were new burdens upon my soul, but I had gained one advantage—the stern approval of the prior. To him I sent request for a lamp and pen and paper. These were given me, and I had surcease from ineffable ennui by writing and drawing. Among other things, I set down in outline most of the story told here in full. That outline is spread before me as I write these words, and is a check against my irritably failing memory.

I kept up my exercises, too, shadow-boxed on occasion, and incised more pictures upon my wall. Even so, I had many hours in which to meditate upon the injustice of Lorenzo's decree concerning me, and upon the things I would do to Guaracco if I ever came within reach of him. Of Lisa I tried not to think.

In the fall of 1474, and again two years later, attacks were made upon the fortress. There was cannonading from the stronghold, and in reply from ships, and once an effort was made to storm us. I heard commotion, fierce yells, the clash of steel. In the end, I could hear the austere soldiers of the church had repulsed their assailants, and for a day the castle rang with chanted paeans of praise.

I grew to have a philosophic sympathy with my jailers. They acted upon agreement with Lorenzo in imprisoning me. They confined me closely only because they must. If my food was plain, my bed hard, so were theirs. For the rest, they were sincere worshipers and fierce fighters. The world was full of worse people.

Thus I reasoned, but still it was a desperate struggle to remain contented and sane. I tried to remember "The Prisoner of Chillon," which had one or two stanzas of comfort for the captive, but it would not come to mind. In any case, Lord Byron would not write it for a good three hundred and forty years.

The spring of 1477 saw yet another attack by enemies, a stronger and more stubborn effort to carry the Fortress of the Holy Pilgrims. I could hear the battering of a wall close to me, and the overthrow of part of it. So hot was the fight, so narrowly balanced for an hour, that the very jailer monk rushed from the corridor outside my cell to help defend the ramparts. During his absence I had time to do a thing I had long planned to do.

The lamp that lighted me was an iron saucer with a central clip to hold aloft the wick. I ignited the straw of my bed, and, holding one edge of the lamp saucer in a fold of my jerkin, contrived to heat the opposite edge red hot. Then, with a loose stone for a hammer and the bed shelf for an anvil, I p o u n d e d, reheated, and pounded again, until I beat that rim into a knifelike edge. After the battle the jailer returned, but he had not heard my noisy labors. And I began to whittle at my wooden door.

The planks were thick, and seasoned almost as hard as iron. But I persevered, all that stifling summer. I counted myself lucky when, between one dawn and the next, I shaved away as much as a handful of splinters.

Boresome it was, and eventually heart-breaking, for my first burrowing brought me to metal. I dug at another place, hoping to avoid such a barrier, but found more; more, that is, of the same sheet.

EVENTUALLY I had removed almost all of the door's inner surface, and found myself confronted with a copper plate, a central layer, probably with as much wood outside as I had already disposed of. My tappings and proddings convinced me that it was solidly massy, except for the small slide-covered opening for food.

I am afraid I both cursed and sulked. I had no cutting tools. The blunt-edged piece of glass I used for an occasional shave was far from adequate. Even if I'd had tools—file, chisel or drill—I would not have dared use them, for the noise would attract guards. What then?

Acid came to mind—sulphuric acid. But where to get it? The stones of my cell were volcanic, might contain sulphides. But how could I burn or distill them? Even if I got the acid, would not its strong odor bring investigation? I approached the problem from another viewpoint, considering not the best acid but the most available.

Chilly fall was upon us, and the sharp, strong wine was served daily instead of on Sunday only. Once again I was inspired.

When my next food was brought, I pleaded for a little vinegar, to medicine a chest ailment. It was brought me in a saucer, and I steeped in it some shavings, whittled from my door. When they seemed sour enough, I placed them at the bottom of my wooden bucket. Into this, day after day, I slowly trickled my ration of wine. It produced a greater quantity of excellent vinegar—at least, for metal-destroying purposes—and after tasting it I felt sure of my acid. Acetic acid, perhaps eight or ten percent at the most.

Painfully scrabbling with a spoon in the trench outside my window, I gained enough clay earth to mix with water and fashion into clumsy basins and jars. These I cautiously hardened in another fire, and employed to hold my supply of vinegar as I increased it, also for other things.

For instance, I constructed a really workable distillery—a narrow-mouthed vase or bottle, suspended above a fire which I fed with chips from the door and furniture, and straw from my bed. As winter came on I heated vinegar in this, and the vapor passed through a hollow reed which I cooled with bits of ice from just outside my barred window. The condensed drops I caught in my cup. They were not pure acetic acid, but a liquid with a high content.

These labors lasted for months. I speak of them briefly, saying nothing of the trial and error, the ludicrous failures and the chance successes that finally made my skill and product adequate. At length, well after Christmas of 1477, I began my attack upon the copper plate that held me from freedom.

At the height of my forehead, and again at the height of my knee, I constructed clay troughs against the metal. These I filled, and kept filled, with the acid. When the action proved slight, I hit upon the device of adding salt, procured by soaking my preserved meat, then evaporating the brine, to the liquid. Thus I got a crude form of hydrochloric acid, which made an appreciable impression. I constantly scraped away the weakened particles of metal, and replenished my supply of salted acid. I wrought for months, and finally was rewarded when the last of the copper along those two narrow lines was eaten away.

The perpendicular acidulation was more difficult, but I managed it by fashioning two clay tubes at the edges of the door, open at the top, rather like the covered tunnels built by tropical ants. These I filled again and again, sometimes pulling them down to pry out the digested copper, then building them afresh for new attacks.

HERE, too, I was successful, and one day in February I was able to pry away the whole rectangle of metal within the compass of my four acid-cut channels. There was more wood beyond but, heartened by my triumph, I scraped and chiseled until the door was almost as thin as pasteboard. To the outside view it might appear as strong as ever.

At mid-day of April 16, 1478, I made my bid for escape.

The attendant came to my door, pushed back the slide, and stooped to thrust in my food. I had been waiting for an hour, tense and ready. As I heard him outside, I sprang, bursting through the thin wood like a clown through a paper hoop.

Landing on the monk's unsuspecting back, I whipped an arm beneath his chin, shutting off his breath. He could not cry out, and his struggles availed nothing. I choked him until his limbs grew slack, then stripped off his robe. I donned this and pushed him, senseless, through the smashed door into my cell.

Then I headed down the corridor, cowl over my face, his keys in my hand. I unlocked the door at the end, mounted steps, and came to an upper level. Another corridor I traversed, with measured tread, as though deep in meditation, and none challenged me.

I came into the main hall, saw the doorway to the courtyard. Beyond would be the open, the beach, a boat. I would row away, they would think that a brother was fishing. After that, I would seek land, even among the Turks. But a voice spoke at my elbow.

"You pass me without saluting, brother."

Father Augustino! He had fallen into step beside me. I lifted a hand to my hooded brow, and his single eye fastened upon it.

"How white your flesh, brother. I thought that every monk of our order was tanned brown by God's sunlight. Who are you?"

There was nothing for it but battle. I sprang at him.

Surprise was on my side. I tripped him and fell heavily upon him. But that old priest-soldier, lame and half-blind, was as strong as I, as fierce. I clutched and pressed his throat, but he caught my two little fingers in his hands, bent them painfully backward until I quit the grip.

His thumbs drove into the inner sides of my biceps, torturing nerves between the muscles, and I rolled free of him. We came up to our feet. I struck him heavily on the jaw, and his one eye blinked, but he did not stagger or flinch.

Strongly grappling me around the waist, he rushed me back against a wall, and so held me, despite my pummeling fists in his face, while a dozen monks, swords and axes in hand, rushed in from all directions. In an instant I was secured, and Father Augustino stepped clear of me, dabbing at a trickle of blood from his scarred nose. He panted and grinned, as if he had enjoyed the scrimmage.

"Here's a stout sinner," he growled. "Never did the blessed angel clip Father Jacob more strongly. Thank you for the bout, my son. Put him in my office."

There I was kept under close guard, while the chief stumped away to investigate. He returned after half an hour, and dismissed the guards, but kept his dagger drawn lest I attack him.

"I am amazed at the cunning and courage and labor of your attempt," he began. "How did you manage to cut through the door, copper and all?"

I DESCRIBED my method, and he listened with interest. Several times he asked me to amplify my remarks. At length he smiled.

"You have science and inspiration. How great would be your works if they were turned to honest, godly uses!"

"Being held prisoner, I can turn them only to an effort at escape," I replied.

"Aye, that. Your months of toil, so brilliantly planned and so wearily carried out, came to naught within short minutes. A tragedy." Father Au-

[*Turn page*]

gustino paused and meditated. Then: "My son, what if I gave you freedom?"

"Freedom!" I echoed him hopefully.

"Within limits, of course. Take you from that cell and let you live among us. You could work more science, with true materials to aid you instead of such makeshifts as you fashioned in prison." He gazed at me encouragingly. "Say but the word—swear that you will not seek to flee from this island—"

"I am sorry," I broke in, "but I cannot so doom myself."

"Doom yourself? But you are now held by iron bars and guards."

"And by a false charge, brought against me by a vile rascal," I finished for him. "I thank you, good Father, for your offer, but I live only to escape and to avenge myself. I cannot give you a parole."

He shook his scarred head sadly. Going to the door, he called his monks.

"Hither, some of you," he commanded. "We must find this fellow a straiter prison still."

A new figure pushed through the circle of black gowns, a man in the dress of the world, all parti-colored hose and plum-purple mantle, with a gay beard and curling locks. Plainly he was a visitor from some Italian city.

"Surely," quoth he, "this is Ser Leo, the artist and scientist, who is held captive by order of Lorenzo the Magnificent."

"Aye, that." Father Augustino nodded. "You know him?"

"I know him," was the reply. "Where doth he go now?"

"To an *oubliette,* I fear. From there he will need wings to rise."

Two of the armed brothers had torn away my disguising robe, and now marched me down steps, more steps, to a level of natural rock where no light shone save a torch. One of them hoisted a great iron trap-door. I looked into a bottle-shaped pit, at least twelve feet deep.

At that moment the upper levels of the castle wakened to noise—a blown trumpet, a chorus of yells. The two monks turned to look. I tightened my sinews for a desperate fight against them before I might be hurled into that tomblike prison. A flying figure came downstairs.

"The infidel Turks! Their galleys blacken the seas! Come to the defense!"

"As soon as we lower this captive into—" began one of my guards.

"No!" A bearded face looked over the black-clad shoulder of the newsbringer. It was the visitor who had recognized me. "Bring him along, he will help fight!"

"Well thought of!" came the deep voice of Father Augustino, higher on the stairs. "Free every captive who can bear arms! Let them fight for life!"

We all raced up the steps together.

CHAPTER XVII

Defense of the Fortress

MOUNTING to battlements around the upper wall of the castle, we all saw that the sea was indeed full of craft. There were galleys, a full dozen, many smaller *feluccas,* and open rowboats swarming as thick as a school of mullet. Drums resounded from the larger ships; and horns. Our own bugles brayed back defiance.

Father Augustino was rasping orders, like any seasoned captain.

"Man and load each gun," he commanded. "Line the walls, keep lookout for where they may land." His eye found me. "Ha, wrestler! Canst use a sword?" He motioned to an aide, who thrust a hilt into my hand. "You have fought your fellow Christians overlong. Fight now against infidels!"

I shifted the weapon to my left fist, trying its balance. At an opposite rampart stood the man who had recommended my joining the defense, and to him I made my way.

"I do not know you, sir, though you know me," I said. "Thanks for saving me from that spider's hole into which they would have thrown me."

"We will speak more of it anon." He pointed to where, inside the little harbor, lay a trim sailing vessel among the

boats of the Holy Pilgrims. "Yonder is my craft, and upon it a fair lady who must not set foot on this monk-owned island. I pray heaven naught befalls either of them."

But I showed him where some of our men strung a heavy chain at the mouth of the inlet. That would prevent the approach of enemy boats, which in any case sought to storm us from the other side.

At that point the wall dropped straight to the sea, and had been badly damaged not long before—perhaps in the fight a spring ago, when I had heard crumbling of stones. The brothers had built it up roughly with broken masonry and spaded earth, faced it with timbers and logs, but it was still the weak spot of the defenses.

Even the stone flooring at the top had collapsed and was replaced with planking; while, instead of an adequate parapet, a work of earth-filled goatskins had been laid in and topped by a great log, nearly a hundred feet long.* From this log ran back cross-pieces, lashed on as slanting supports.

Here the fire from the galleys was concentrated. Round shot tore holes in the goatskins and let out cascades of the heaped earth, while a blizzard of arrows and slings picked off such of the brothers as manned the log-topped parapet. The others crouched low.

"They will seek to carry this quarter," announced Father Augustino sagely, limping across to the log.

His gown, looped up to kilt length, showed great steel greaves upon his shins, and he had thrown back his cowl to don a plumeless helmet. A bolt from a crossbow struck his shoulder, then glanced away. He must be wearing a steel cuirass under his robe.

"Aye," he called, "here they come, a hell's spawn of boats, under cover of their fellows' fire! Keep down, brethren, until they mount our wall. Then the fire must slacken, and we will meet the unbelievers with an argument they will understand."

Drawing his sword, he spat between big hand and worn hilt.

I dared look over the log. A shoal of boats swept swiftly toward us from the galleys, boats filled with gesticulating and howling Turks. I saw the glitter of their mail, the curves of their flourished scimitars, the upward jut of helmet spikes from their turbans. A moment later, a jagged little stone sang upward and against my forehead —slung, like David's pebble, from a sling. Like Goliath I fell sprawling on my back, half dazed and almost dropping my sword.

FATHER AUGUSTINO leaned farther from his point of vantage, careless of the rain of missiles.

"They raise ladders!" he cried. "Here they mount!" He turned to his followers. "Strike, brethren, for the true faith!"

I made shift to rise, a little shakily, and watched as a line of black-robes came swiftly forward over the planked-in floor, swords and axes and halberds at the ready. The sound of firing had ceased from galleyward, as Father Augustino had predicted. A moment later, a yodelling cry rose from below:

"Ululululallahuakbar!"

One prolonged bellow of challenge and of profession. Then the outer side of our log was lined with turbaned, bearded heads.

The storming party was upon us, eager for trouble. Nor could they have come to a better place to find it.

The Holy Pilgrims hurled themselves upon the attackers, calling upon the names of every saint in the calendar, and hewing and thrusting like fiends instead of clergymen. At their head, and in the hottest press, nimbly hobbled Father Augustino, his straight sword playing like a striking adder against a whole forest of scimitars.

Something impelled me in his direction, and in good time for him. While his point wedged in the neck-bone of one adversary, another charged close and, catching him by a fold of his gown, slashed a scimitar viciously at his head.

The blow was turned by Father Augustino's helm, but its force staggered

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*A log of this length was by no means rare in the Fifteenth Century, well before the deforestation of Italy.

him, and a second effort beat him to his knee. With a whoop, the Turk lifted his blade for a third and finishing cut, but at that moment I hurled myself between, my own steel forestalling his.

He was a deep-chested fellow, brown as chocolate, with mad foam on his black beard.

"Ya Nazarini!" he snarled. *"Ya 'bn kalb!"* *

And he fell furiously upon me. But for all his fierceness, I was more than his match. My first slicing lunge laid open his face, my second bit into the side of his neck. He collapsed, bleeding from nose and mouth, to die even as I turned away.

The surviving Turks were reeling back, whipped along by the savage garrison. They tumbled down their ladders and rowed hurriedly away in their boats, under a new curtain of shot and arrows.

Father Augustino was up again, glancing around to estimate the situation.

"We suffered sorely, but they suffered worse," he commented. "What says Holy Writ? 'Blessed be the Lord my strength, who teacheth my hands to war, and my fingers to fight.'" He turned his eye on me. "Thanks for the rescue, my son. Yet I make no doubt that, with heaven's help, I could have risen and overthrown him. Whence will come the next assault?"

We found out soon enough. Three great galleys moved against the mouth of our inlet. Our gun crews toiled madly, but could not batter them back. When the galleys had drawn close, a great throng of little black figures dived overside and began to swim for the inlet.

"By heaven, I see that they carry axes!" spoke up my friend, the bearded visitor. "They will attack the chain! If it is cut, they will come in and seize our ships!"

"A sortie! A sortie!" yelled Father Augustino. "Out, brethren, and meet them in the water!"

He led the rush downward himself, leaving only the armed prisoners and a dozen black-robes to hold the upper ramparts. We watched, fascinated, from above, as the monks burst from the great gate, hurried down to the water's edge. Some of them were shot by crossbows on the galleys, but the greater part reached the water and swam forward to meet the Turks. There was a fierce, clumsy melee in the waves that lapped along either side of the chain.

"THE brethren triumph!" pointed out a monk at my side. "Look, the forgotten of God are retreating, swimming away."

"They do so more readily than I had hoped," I replied, thinking of the previous stubborn assault. My own words gave me a new disturbing wonder. "What," I demanded, "if it were a false attack, to withdraw us from our own defense?"

Even as I spoke, I saw that the galleys were pulling away with all their oars, skirting the rocks narrowly and speeding around to the point from which the earth-mended wall had once been stormed.

"Rally! Rally!" I shouted, and led the rush across to the rampart of earth-bags and log.

It was as I had been inspired to guess. The sea was full of boats again, scores of them, rowing swiftly forward to the attack. A spatter of shafts and shot made the few of us who were left put our heads down.

"What is to be done?" demanded a wide-eyed brother with a smear of gore on his chin. "See, their whole force comes to this side, more than the first time! Their rush will beat us back, and our comrades outside, returning from the chain, will not arrive in time to hold the castle!"

"Stand to the rampart, hurl down their ladders!" stoutly shouted an armed captive.

As he leaned forward to suit action to word a crossbow bolt whacked into him, and he crumpled across the log, dead. The rest of us crouched low, swords in hand, determining to die hard.

I found myself kneeling beside one of the lashed cross-pieces that propped the great log which was our temporary

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* Arabic: "Oh, Christian! Oh, son of a dog!" Perhaps spoken by a Saracen rover.

coping. It was none too firm, that cross-piece, I judged. And again I was inspired.

"Hark ye, all!" I cried at the top of my voice. "We can save ourselves! Form in parties by these cross-pieces! Clutch them in your arms! If we bear with all our strength at once, it will force the great log forward and outward!"

"To what good?" demanded another.

"To overthrow the ladders, as we cannot with such a fire against us. Do not argue, friends, but do as I say!"

There was no time or hope otherwise. In a trice we formed in half a dozen knots, all crouching or kneeling, our weapons flung down and our arms wrapped around the cross-timbers.

Whoops and execrations rang from beneath us, where the ladders were being reared from the boat bottoms to give access to our fortress. I felt my heart race like a drum-roll, but kept my ayes steadily on the parapet, where the spiky ends of the ladders showed.

"Allahuakbar!" thundered the enemy, and again a row of heads shot up into view.

"Now!" I shouted my loudest, and taxed all my muscles to drag forward on the cross-piece I clutched.

There was a concerted grunt from every defender as we bore mightily against the log. And, as I had dared hope, so it was. The mass of timber slid gratingly forward, as a drawer slides from a bureau. With it swayed the storming ladders, so precariously balanced, and toppled. A single concerted shriek assailed heaven from the many throats of those who were suddenly hurled back, down, among the boats and into the surf.

Dragging back our timber defense, we cheered each other in wild and thankful joy.

THAT unexpected reverse gave the Moslems pause—a blessed, blessed pause, enough for the return and remarshaling of the swimming sortie led by Father Augustino. He clapped my shoulder with a hard hand.

"You have saved this holy place," he told me, "and if it were in my power to free you—"

He turned away to thunder new orders. I stood alone for the moment, then a hand clutched my sleeve. I turned, to see the bearded man whose name I did not know but who knew me; the man whose boat was in the little harbor below.

"Come," he said softly. "If he cannot give you liberty, I can."

"How?" I demanded, hope pounding in my breast.

He did not pause to reply, but drew me with him to the stairs and down. We went unchallenged through the lower part of the castle, and came to the gate. He unfastened it, and we stepped outside.

"See," he bade me. "The Turkish boats have all gone around to the other side, hoping to make good that assault which you foiled. Now is my time to flee. I have too fast a ship for them to catch, and I will take you along."

I was too amazed and thankful to speak. A moment later we had hurried down, sprung aboard his half-decked sailing vessel, and were headed out for that quarter of the sea just now unguarded by either Holy Pilgrim or infidel Turk—the sea beyond which lay the Italy from which I had been carried captive six years before.

CHAPTER XVIII

Return to Florence

JUST as soon as my feet were on deck, my enigmatic friend hustled me into the cabin, where he left me alone. I heard his shouted orders on deck, felt the ship move. We sailed out, unchallenged and unchecked, and headed northwest. I heard the muffled noise of a fresh attack on the fortress, but we were not pursued.

After some time, the master of the vessel appeared. He offered me a razor, with which I thankfully took my first decent shave. A mirror showed me my face smooth again, but no longer fresh and boyish. My brow was cleft with a frown mark, my nose and chin had hardened, and my eyes blazed as with challenge and truculence.

Over one temple rose a purple bump, where the Turkish slinger had struck me. Not a pretty face.

My rescuer was offering me new clothes. I pulled on dark green hose, a velvet doublet, and then looked in surprise at the cloak he offered—a cloak of Florentine scarlet.

"Why, it—it is mine!" I cried. "I wore it before. It was given me by—"

"By Guaracco," he supplied. "Yes. From him I took it."

"But Guaracco caused my imprisonment," I protested.

"He now causes your release," was the answer. "He knew, through spies, that the Turks would attack. He arranged that I come to the fortress in good time for that event, with instructions to help you escape. It took but a word to draw you out of cell and into the ranks of the defenders. After that— But you will know all anon. Stay in this cabin, for it would be ill for any sailor to see you and gabble in port."

I stayed, perforce, all that day and for some days following. We talked no more about my strange rescue, and I could learn nothing at all of the reason for it. At last, on the morning of April 25th, we docked. Peeping through a porthole, I watched the mariners tie us up to the pilings.

I raked the shore with my eyes, on the lookout for Guaracco. I wondered what I would find to say to him.

In the midst of this, my companion entered.

"Here is a fellow-passenger of yours, whom I at last show you," he said.

With him was a slender figure, cloaked and masked, as at a carnival. Saying nothing, this figure handed me a folded and sealed parchment. On the outside was the address, written in fashion of the time:

THIS TO THE HAND OF MY
KINSMAN, LEO,
QUICKLY,
QUICKLY,
QUICKLY,

Wondering, I broke the seals and read:

My dear cousin and partner:

Do not think me neglectful if I have left you, like a dagger in a sheath, until the time was ripe to use you. For the ill you have known at my hands, I now make full amends. I have prospered in Florence, and power shall be mine and yours. Come and aid me, as I shall aid you.

Guaracco.

I looked up again, with an exclamation. The figure had unmasked and dropped the cloak. It was Lisa. Her deep, dark eyes looked into mine.

"I have come to take you back to Florence," she said mechanically.

I stared at her, and my eyes must have been like those of a frog.

"What is the matter, Lisa?" I asked.

Because something was the matter. She seemed to move and talk in a dream.

"I have come to take you back to Florence," she said again.

GUARACCO had done it—put his spell upon her, and sent her here. Nay, he had sent her all the way to that perilous fortress to assure my own obedience to his call. I gazed at the letter, crumpled it in my hand. It was baleful, foreshadowing tricks and traps.

"Will you come?" Lisa was asking me.

She spoke in the measured tone she might have used when purchasing meat from a butcher. Her eyes were upon me, drawing my gaze to them, but they only half knew me.

I could not refuse. Guaracco had known as much when he had sent her after me in this state. I felt fear and rage and mystification, but I could not send her back alone.

"Come," I said, and flung my red mantle around me.

We went ashore. Another familiar figure was on the dock—a tiny figure. Guaracco's uglier dwarf.

"Welcome," he greeted me softly. "Our horses are ready at yonder hostler's." He silenced my question with a finger on his twisted lip. "Guaracco will tell you all. Trust him."

Trust Guarcco! I did not know whether to laugh or curse.

We rose swiftly away in the bright-

ening morning, Lisa and the dwarf and I. The horses were good and I found mine easy to manage, for all I had not put foot in stirrup for six years. Lisa must have worn men's clothes beneath her long cloak, for she rode cross-saddle, and she neither spoke to me nor looked at me. The dwarf led the way, hunched on his mount like a trained monkey.

We took the road that once I had galloped with Lorenzo's officers. This time we paused once, at an inn where fresh horses awaited us. We changed to them, and took a cup of wine and some bread and goat's cheese as we sat in our saddles. Eventually, as sunset came, we rode into the valley of the Arno, and in the dying daylight I saw Florence yet again, a white city caught midway on the silver cord of the river, with green fields all around.

But as we came near a gun sounded, and the dwarf grumbled that a watch would be set at the gates. For my sake, he said, we must not enter there. I might be recognized, for all the change in my appearance.

We turned therefore into the yard of a waterside house above the city where our hideous little guide whispered to certain acquaintances of his. We left our horses and boarded a small barge. It dropped down river with us, drifted stealthily within the walls and under the bridges, and came at last to a wharf where we disembarked. Almost immediately at hand was a house I knew, the house where Guaracco had once offered me the hand of Lisa, where he had experimented and quarreled together, where he must now be waiting for me.

We walked along the street that led to the front door, and there at the door we paused. Still Lisa did not speak.

"Knock," the dwarf bade me.

As I did so, I divined the presence within of a watcher. But there was no response, no audible movement even. It was only when Lisa, prompted like me by our companion, spoke her name aloud that we heard a clang of bars and the door opened a trifle, to show a face.

It was Guaracco's other dwarf, the handsome one who acted as porter. The ugly little man came close to my side. Both of them held drawn swords, and their eyes, turning up to me, were bright and hard.

"Some in," whispered the one who acted as porter. "They wait for you."

I STARTED to speak to Lisa, but she was walking around the side of the house. I entered the front hall, to learn what was in store for me.

There stood a sizeable oblong table, littered with papers, and men sat in chairs along its sides, seven of them. Guaracco alone I knew, and he stood up at the head of the board, his face toward me. He did not seem changed in so much as a red hair of his beard, or a gaunt line of his figure. At sight of me, he cried out as if in joy, and bustled around the table to me. Before I could move, he caught me in his arms most affectionately.

"My cousin! My cousin!" he was saying, and his grin was within six inches of my face. "You have come, as I begged to help me in my great triumph!"

His right arm, clasping me around the body, had slid under my loosened mantle. Now it pressed something against the middle of my back—something round and iron-hard. The muzzle of a gun. If I moved quickly, or denied him, I would die on the instant.

With that pistol-bearing hand urging me forward, as though he still embraced me in loving fashion, he led me to the head of the table, and there kept me beside him.

"This is my kinsman Leo, gentlemen," he introduced me to the company. "He is the man I told you of, whose wonders you have heard speak of in times past. He has more scientific miracles at his fingertips than all the saints in the calendar."

"I know him," said a fragile, shifty-eyed man in black and crimson. "He was once pointed out to me at the palace, and it was said that Lorenzo set great store by him."

"Are you then satisfied?" Guaracco asked the company. "With him as our helper hereafter, can we fail?"

"If he is true to us—" offered another.

"I vouch for that," promised Guaracco, his gun prodding me.

Their silence gave him consent, and he went on:

"All is agreed then. By this time tomorrow night we shall be in full possession of Florence, and in a position to dictate to Tuscany as a whole. The oppressors will have shed their last drop of blood, the magistrates will speak and act only as we see fit to bid them."

His embrace relaxed, his pistol ceased to dig into my backbone, but I knew that it was still at the ready in his hand.

"The people?" asked a thickset man in a leather doublet. His eyes burned from under black brows the width of a thumb.

"The people will offer no trouble, even if we cannot rouse them," Guaracco returned. "Was it not you, Captain Montesecco, who have had charge of gathering two thousand hired soldiers outside the walls?"

"I had charge, and I have done so," replied the man addressed as Captain Montesecco. "It is well we strike at once, ere so many armed men cause suspicion. Yet, Florentines are many and valiant—"

"We can count on many supporters in the city," interrupted the fragile man in black and crimson. "We Pazzi have servants and dependents to the amount of several hundred. Our houses are close together in one quarter, and a rising of our households would mean the rising of all that part of Florence."

AS he mentioned his family name I was able to identify him as Francesco de Pazzi. He was one of a family of Florentine bankers, not as rich or powerful as the Medici, but quite ambitious.

"All of us stand ready," he was continuing, "with influence, men and arms—all, that is, but my cousin Guglielmo. You, Ser Guaracco, advised against telling him of our plan."

Guaracco's rufous head nodded. "He is married to Lorenzo's sister. Later, with his brother-in-law and the rest out of the way, Guglielmo will be glad to join us. But now now. Your uncle, Giacopo, the head of the Pazzi —what is his temper tonight?"

"Of course, I did not bring him here," said Francesco de Pazzi, "for he has archaic ideas about fair play. Howbeit, he knows that there is to be an arising against the Medici whom he has ever hated as upstarts and thieves. He will lead the muster of our men."

Another of the group about the table gave a little nod of approval. He was tall and high-shouldered, a scraggy-necked fellow in a purple *houppelande*, and he had a shallow, pinched jaw, like a trowel.

"What is my task?" he inquired eagerly, as though concerned lest all the blood be spilt by other hands.

"A task worthy of Francesco Salviati of Pisa," Guaracco flattered him. "I rely upon your eloquence and courage. Either may suffice; both will be invincible."

"You intend," said Pazzi, "to assign him to the palace?"

Guaracco nodded. "I shall put some of my best blades in your charge, Salviati," he announced. "At the appointed time, go to the Palazzo Publico, where the magistrates live and sit in judgment. Look, I will draw a diagram."

Dipping pen in ink, he began to sketch on a white sheet for all to see. "Once up the stairs," he instructed, "you come into a hall. There ask the guard to summon the magistrate of the day. While he is gone, let your men pass through this door which you will see upon your left hand." He pointed with his pen. "It leads to an antechamber large enough for them all to wait. The magistrate will arrive, and you will tell him that liberty is at hand for Florence. If he will, he can join us. If not, call forth your band to make him see wisdom."

"And my assignment?" prompted yet another, one of three who sat together at the right hand of Guaracco. He was a youngish, hook-nosed fellow in good clothes, with a look about him of fine breeding gone slovenly. "I have a sure hand with a dagger, mind."

"I mind it well, Ser Bernardo,"

Guaracco said, and smiled. "You and Ser Francesco de Pazzi will strike down Giuliano, and see that he does not rise again. Have I your approval, Bernardo Bandini?" It was plain that he had it, and he turned his smile toward Captain Montesecco. "Our friend the captain promises to deal Lorenzo his death."

"And I miss stroke, may my sword arm wither!" vowed the sturdy soldier.

"Meanwhile"—and Guaracco's eyes slid toward me—"we have with us a fighter the nonpareil of any. Leo, my kinsman, known as Luca, the admiral of freebooters who has lashed the Moslems to their kennels for six years. He is famed, admired, and he knows more about warfare than any man living. I will place him as our general!"

CHAPTER XIX

The Conspiracy

QUITE well I knew now why Guaracco had thought to drag me into his scheme. He would serve himself with my brains and skill, as so often before. It was one more item that made his plot complete. Even I, within minutes, saw how the rebellion would succeed.

The conspiracy was not for a single blow but several, all accomplished at the same moment. Lorenzo and Giuliano, the heads of the Medici were to be assassinated. The Palazzo Publico would be seized and the officers there taken into custody by armed men. The adherents of the plotters would rise in an impressive manner swaying the unsuspecting and perhaps dissatisfied citizenry by their cries and promises. And to guard against the forming of a violent resistance two thousand mercenaries were ready to march into the city.

It could not fail. With the fall of Lorenzo's power my exile and danger would be past. Yet my paramount impulse was to cry out against so ruthless a measure.

But if I spoke so my life would be forfeit. I would not live to get out of the room. I remained silent while Captain Montesecco asked when and where the Medici brothers were to be struck down.

"Tomorrow morning," said Guaracco. "At church."

"Church?" repeated the captain sharply.

"Aye that. Tomorrow is Sunday, you will remember. We cannot be sure of getting them together at any other time. Cardinal Riario * is to say mass at the cathedral, which will insure their attendance. We will be ready for them, each nearest his man. At the moment when the host is elevated, and all attention directed thither—"

"Now, nay!" The leather-clad figure started from the chair. Montesecco's black brows lifted into horrified arches. "I cannot draw swords at that holy moment. God would be watching me!"

Guaracco chuckled, and so did Francesco Salviati, the trowel-jawed man in purple. But Montesecco was not to be laughed out of his impulse.

"I have sworn to help," he admitted, "and I shall do so, or my name is not Giovanni Battista Montesecco. I will command the mercenaries, raid the palace, help to rouse the city—but I cannot and will not do murder in the cathedral!"

"The man of blood shows himself blood-drawn," sneered Pazzi.

"Say you so?" gritted the captain. "If you will take a sword in hand, Messer Francesco, you will end up more blood-drawn than I."

But Guaracco caught Montesecco's leather-clad shoulder in a big, placating hand.

"None call you coward, Ser Giovanni," he assured the mercenary. "Withdraw this part of it if you will—none will blame you—and we can use your talents elsewhere. Bernardo Bandini, you are still ready to deal with Giuliano?"

* Cardinal Riario was a nephew of Sixtus IV, then Pope of Rome. Some have tried to connect him with the Pazzi conspiracy, but the great mass of evidence shows that he had no other connection than that a cardinal's presence at the cathedral would insure the presence of the two brothers Medici.

Guaracco's wise glance shifted to the two men who had not yet spoken. Both were clad in black, and their faces were somber to match.

"What do you say, Antonio Maffei? Methinks you lived once in Volterra, which Lorenzo saw fit to sack and destroy?"

My mind leaped back to Volterra. Guaracco had managed its destruction primarily so as to get a crystal of alum for our unsuccessful time reflector, but he must have other plans in connection with that apparently senseless cruelty. For one, he had discredited me when I might have been as a stumbling block.

HE was able now also to use the incident against Lorenzo. For Antonio Maffei was saying, with a growling relish, that the smell of Lorenzo de Medici's blood would smell sweet to the saints in heaven.

"He is a devil," he garnished the conceit, "and merits urging to hell."

"Your gossip, Stefano da Bagnone there, will help you?" asked Guaracco. "You make a sign of assent, Stefano, as I take it. And I may provide a third for your dagger party." Again he glanced sidelong at me. "We need not speak further tonight, gentlemen. Let us meet early on the morrow, and then to work."

He let them out by a rearward door. Of the group he detained Francesco de Pazzi for a moment, advising him strongly to keep an eye on Captain Montesecco, who had turned strangely squeamish for a professional killer. Then, when all were gone, he wheeled upon me with a sultry grin of welcome.

"Welcome home, boy," he cried. "Fine things are to be our doing within the twenty-four hours."

"Murder, you mean?" I flung at him. "Anarchy? Riot?" I walked close to him. "Lisa, under your power of will, brought me hither. I demand that you free her, and at once. She and I will depart before another hour is passed."

"I think not," he said, in his familiar easy manner of a master, but I snarled in scorn.

"I am vastly different from the man you lyingly accused to Lorenzo. I am a killer! Bring on your dwarfs, and see if they frighten me. I came here only to take Lisa away, and by the Saints I shall do so."

"Lisa?" he repeated. "Where is she?"

And I realized that I did not know.

"I was beforehand with you," he continued. "I hold her a hostage for your good will and support. Yet all may be well." He waved toward a chair. "Sit down."

I did so, and he talked. The Pazzi, he said, powerful and extravagant, were on the verge of bankruptcy. They slavishly sought to work under him for overthrow of the Medici, forgetting that when the overthrowing was complete Guaracco would rule through them and could, in good time, overthrow them also.

"Florence is as good as mine tonight," he said. "After Florence, other states. All Italy." He beckoned. "Come."

He led the way down some rough stairs to the cellar where we had once worked together. It seemed stacked with firewood, until he kindled a lantern. Then I saw the stacks were of weapons.

There were rifles and bayonets; boxes of grenades; machine guns; canisters that must hold high explosives and many another baleful thing. Toward Guaracco I turned a wondering face, and he laughed the old superior laugh.

"I quarried these weapons, or the knowledge to make them, from that bemused mind of yours, Leo. I had two years to delve into your trances, and six more to forge and fashion. What ordinary army could stand against me?"

"You have soldiers?" I asked him.

"When first you came, you saw the worshipers I governed by tricks of deviltry. Those, and more like them, will rally at my call to use these arms. After that— But Leo, you cannot demur longer. You and I cannot succeed without each other."

Again he plunged ahead with the wild sketch of his plans. After the subjugation of Italy, the subjugation

of France and Spain; a united and submissive Europe would toil for Guaracco, its lord of lords; Cristoforo Colombo would be sought out, given his fleet and sent to America to win its wealth.

"Once you fancied such an empire," he reminded me. "Am I not the true master sorcerer, with whom all things come to pass?"

"Not all things," I demurred. "I remember that I told the defeat for such a master—death. It will come to you."

His eyes turned frigid. "Seek not to kill me, unless you want to lose Lisa. Join me and she is yours. Otherwise I may give her to Bernardo Bandini for stabbing Giuliano. Or I might use her to persuade that overgodly mercenary, Montesecco. You can have her only if you are my devoted lieutenant."

"Lisa loves me," I said stoutly.

"Only at my bidding. My will commands her."

I gazed at him as though I had never seen him before.

Not that I had not known him from the first day as a dangerous scoundrel; not that I had not always hated and feared him; but at last I knew that I must not delay. He must die, for the sake of Lisa and myself and all the world.

In one motion I bared my sword and darted it at him. He reeled back with a cry, but no blood came. My point had turned against a concealed shirt of mail. He extended his arm, dangling the lantern above an open cask.

"There is powder inside," he warned. "Attack, and—"

I hesitated only a second, then turned at the sound of pattering feet. His two dwarfs were at me, ducking under the sweep of my sword to close in. But I brought down the pommel of my weapon upon the head of the hunchback, even as he shortened his own blade to thrust. Down he fell, and I sprang across him and darted upstairs.

"Lisa! Lisa!" I cried. Only the roared curses of Guaracco answered me. He was pursuing, a rifle in his hands.

"You cannot catch me!" I yelled, on inspiration. "I go back to my prison!"

I gained the front door and ran out. Away I fled, passed Verrocchio's *bottega*, around a corner to a broader street, and toward the heart of Florence. For I had only pretended that I was fleeing the city.

What now? Seek Lorenzo and warn him? Dared I show my face to him? Ahead of me loomed the Palazzo Publico, destined for a stirring scene of tomorrow's uprising. I had a sudden hope and plan.

Unbuckling my sword, I hid it in a bush. Boldly I went to a side door and knocked. A porter opened to me.

"I am the locksmith," I said. "I come to fix the antechamber door."

"I heard no orders," he temporized, but allowed me to enter and mount the stairs to the upper floor.

Here was a reception hall and a door opening to the left. Guaracco had designated it as an ambush for the bravos who would follow Francesco Salviati. I examined its heavy lock, and with my dagger made shift to drag it partially from the door. Still watched by the suspicious porter, I tinkered with its inner works.

"Now it will serve," I told him, and went my way.

TO all appearances I left the lock as it had been. But I had bent a spring and pried out a rivet. Any man or men, going into that room and closing the door behind, could not get out again without the aid of even a better locksmith than I.

After that, I sought a livery stable, and with a few coins that were left in my pouch hired a horse. Somehow I wheedled my way past the watch at a gate, and made the best time darkness would allow to the old familiar country house which Guaracco still kept.

A single caretaker opened to my thunderous knocking. Without ceremony I drew my sword and swore to cut out his liver if he forestalled me by word or deed. He tremblingly made submission, and I locked him in a closet. Then I took a lamp down to the cellar workshop where Guaracco had tested my scientific knowledge on our first day of acquaintance.

It was in a dusty turmoil, but in a corner among odds and ends of machinery was what I had hoped to find —the remains of our unsuccessful time reflector. I checked the battery, found it in bad shape, but materials were at hand to freshen it. When I had restored it to power, I procured salt from the kitchen and mixed a great basin of brine. Finally I attached two wires to the terminals of the battery, and thrust their ends into the liquid.

I watched carefully. Electrolysis commenced. The bubbles that rose at the negative wire would be liberated hydrogen. Those at the positive end were what I wanted. From a bench I brought a glass bottle, holding more than half a gallon, filled it with brine and inverted it above this stream of bubbles. Steadily the gas crowded out the salt water, showing greenish yellow. I stoppered the bottle as it filled, then charged a second and a third. Finally I drew the wires out. The bottles had earlike rings at their necks, and I strung them on a girdle under my cloak.

They were now a weapon for me that Guaracco had not dreamed of; for I had produced chlorine gas, such as had poisoned armies in the World war, the war that was still centuries ahead of me.

As I finished the work, Sunday dawned grayly. I released the frightened caretaker, and rode once more to Florence.

CHAPTER XX

Turmoil

UNDOUBTEDLY, as I have said, Il Duomo—Saint Mary's of the Flower—was the second cathedral in all Christendom. I was there gas-bottles and all, the next morning before Cardinal Riario began to say mass.

I tried to lose myself among the throngs of worshipers who strolled most informally among the banks of seats in the octagonal choir space beneath the great open dome. For once I was glad of the natural darkness that clung in the cathedral, lighted only by the ornate upper windows.

At the high altar the cardinal, young and handsome for all his high dignity, was intoning the service. I found a shadow beside a carved wooden screen, and tried to shrink my height by bowing my shoulders under my mantle.

More worshipers appeared, and more, brave in all the colors and fabrics of Sabbath costume. A tall, ruddy head and beard showed among them—Guaracco, I saw at once. In my heart I prayed that he fail to see me, and he did. He was looking for other things, and perhaps he believed that I had indeed fled Florence.

Then, on the other side of the choir, a flash of blue velvet, a smiling, handsome face. It was Giuliano de Medici,* and his arm was linked with that of Francesco de Pazzi, as though with a close friend. On the other side of Giuliano, and a little to the rear, walked Bernardo Bandini, the dissolute young gentleman on whom Guaracco threatened to bestow Lisa. Would Guaracco do so? Would Lisa consent?

And then someone strolled past me. Lorenzo, a gorgeous figure in a crimson *houppelande,* sword at side, chatting with a crooked, smiling young man—Agnolo Poliziano, the poet. Behind them, tense and pale, slunk two dark-clad figures, the assassins Maffei and Bagnone.

I took a step toward the ruler of Florence. I drew in my breath to shout a warning, in the midst of the holy service. I saw Guaracco approaching beyond some chairs.

It was then that the host was elevated at the altar. The young cardinal's voice rang out the prayerful words that, all unknowing, would signal for violence:

"Ite, missa est!"

Maffei, the vengeful Volterran, who was closer to me than Bagnone, stepped suddenly forward, clutching at Lorenzo. His dagger twinkled in air.

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* Giuliano was ill on this fatal Sunday, but Francesco de Pazzi and Bernardo Bandini went to his house and urged him in a friendly manner to attend mass.

I seemed to move of an involuntary stimulus. Had I been a true Florentine, I would have paused to draw sword, and that would have been too late to save Lorenzo. Being an American, and from the Twentieth Century, I struck with my fist. Maffei staggered under the blow, his thrust went awry. It glanced along Lorenzo's neck.

"Beware, Your Magnificence!" I cried, and struck Maffei again, a roundabout right.

He turned halfway toward me, catching my knuckles on the point of his chin. Down he floundered in a flurry of black robes, and I set my foot on his dagger hand. The weapon clanked on the floor, and I kicked it away.

All had become howling confusion. My gas, I saw, would not affect only Guaracco's party, but the whole congregation. I dared not release it. At last I thought to draw my sword.

Across the octagonal space, chairs were overturning and horrified people were scurrying and gesticulating. For a moment I saw Giuliano's blue velvet form struggling on the floor, while Francesco de Pazzi, with his knee on Giuliano's breast, struck viciously with his dagger. Other swords were out on all sides.

"Down with the Medici oppressors!" I heard Guaracco trumpeting.

A CHEER answered him, for the service had been liberally attended by members of the conspiracy. The cardinal, his young eyes wide with horror, was drawing back from the altar, and a priest in black robes was trying to lead him away. Maffei had risen, and was running before my sword-point. I turned to see what was happening to Lorenzo.

He had drawn his own sword, and was parrying the wild dagger thrusts of Bagnone, but his wound streamed blood and the terrified Poliziano hampered him by clinging to him.

I hurried to them and thrust hard at Bagnone, but my stroke was turned, for as Guaracco had done the night before, this conspirator wore mail under his gown. Yet the digging jab drove him back. I gestured Poliziano toward a doorway with my weapon.

"Is that the sacristy?" I shouted. "Get him in there and bolt the door!"

"Giuliano!" Lorenzo was shouting back. "Is Giuliano safe?"

But I gave him an unceremonious shove, and a moment later Poliziano had dragged him to the threshold.

"Down with the Medici!" yelled Guaracco again.

His voice was near, and I faced around upon him and half a dozen of his supporters who were rushing to cut Lorenzo off. I threw myself in their way, quickly wadding my cloak into a shield, and engaged several blades at once. I heard the clang of the door behind me, and the shooting of the bolts.

"Medici! Medici!" I roared, fencing off my assailants. "Murder! Help, honest men, murder is being done!"

"Medici!" someone echoed, and never have I heard a sweeter voice.

A robust cavalier in plum-purple hurried to my side. He, too, had a sword, and struck manfully at the conspirators. His example fired others. In a trice the entire floor of the choir was a melée of jabbering voices and clashing steel.

Several armored guardsmen made their appearance. I saw Guaracco fleeing. I followed suit, for I remembered that Lorenzo, whose life I had just saved, had doomed me.

The public square outside the cathedral was swiftly jamming with people, some armed and angry, others frightened and mystified. All were talking at once, and nearly all were shouting "Medici! Medici!" In this quarter, at least, the people were for their ruler.

A fellow in a jerkin of falding, with gray hair and a cast in his eye, stopped me with a fierce clutch even as I emerged from the cathedral.

"Is it true that Ser Giuliano de Medici is slain?" he asked.

"I fear so," I replied. "I saw him struck down."

The gray head shook dolefully, but the one good eye lighted up.

"Come to the Palazzo Publico, young sir," the man urged me. "There is good sport there."

"What sport?" I asked, panting from the excitement.

"Salviati and some cutthroats went up to seize the magistrates. But the most of them were trapped in a room. The door had a spring lock."

Joy surged into me. My device had worked.

"How then?" I cried.

"Some guards, and friends of the Medici, came and seized the lot," he replied with relish. "Even now they are being hanged from the windows, like hams on a rafter."

FIERCE as it sounded, the news came gladly to my ears. Guaracco's conspiracy had failed in part at the cathedral, it had failed utterly at the palace. But I had no time for rejoicing. Elsewhere in the city was rising fresh danger.

"Nay, come with me," I bade my new friend. "I know of better sport still." I raised my voice. "Hark, all true Florentines and servants of the Magnificent! Who will fight for the Medici?"

"I!" stoutly called a youth, brandishing a cudgel. "And I!" came another volunteer. "I! I! I!" chorused others. Half a score offered themselves in as many seconds.

"Then follow," I said, and set off at a trot for the Pazzi quarter.

I now held a bottle of chlorine gas in each hand. The fellows set up a shout, of enthusiasm or excitement, and ran at my heels.

We had not far to run. Out of a narrow side street road a man on horseback—a square-faced man, bright of eye and straight of back for all the whiteness of his hair. He wore gold-filigreed armor on chest and legs, and waved a sword. Armed footmen came at his heels. "Liberty! Liberty!" he was shouting. "Overthrow the oppressors!"

He must be Giacopo de Pazzi, the aged but sturdy head of the rebellious family. Behind him were marshalled the retainers of his house, a good hundred—and dangerous looking. And masses of citizenry pressed from other streets to stare, perhaps to join.

There was nothing for it but audacity. "Medici!" I thundered in return to the Pazzi slogan, and flourished one of the gas-bottles as though it were a battle flag. "Forward, loyal Florentines! Smite the assassins!"

My own following set up a shout, and pressed forward with me. I had more adherents than I had thought at first; doubtless we had been reenforced by others as we passed along the street. But Giacopo de Pazzi was not the man to be daunted. He had come out looking for trouble, and seemed glad to find it. Yelling a war-cry, he came toward us at a trot.

His horse alone would scatter my band, for we were all afoot. I made a decision, and hurled my first gas bottle. It burst on the pavement several yards ahead of the old man, and he checked and stared. I ran close and threw the second.

It smashed even closer to him. The cloud of gas, rising and mixing with the air, must have been driven sharply into his eyes and nose, as well as into the nostrils of his horse. The poor beast snorted and reared. Giacopo de Pazzi kept his seat with difficulty. Coughing, he dropped his sword and clutched at his throat with his hand. A moment later his frightened steed, out of control, had sidled into the foremost of his own men, throwing them into disorder.

The onlookers knew less of what had happened than Giacopo de Pazzi, but he had lost command of the situation, and the balance of approval tilted from him. Hoots and jeers rang in the air.

"Medici!" I screamed again.

"Medici! Medici!" echoed back from all sides.

I hurried almost into the midst of the Pazzi party. From my belt I tore my third and last bottle bomb, and threw it. It broke only a few feet from me, and the fumes blinded and strangled me as well as others. I retreated as best I might, coughing and dabbing at my tear-filled eyes. But, though I could not see, that final dose of irritating gas must have completed the job of halting the rush to dominate the city.

I heard an increasing hubbub of

loud shouts for the Medici, and when my vision cleared at last, I saw a flash of armor. Guardsmen were making their appearance, threatening the parade with swords and pikes. I saw the foremost armed servants of the Pazzi faltering and drawing back, crumpling the head of the column. Some darted to right and left, losing themselves in the crowd.

Giacopo de Pazzi had recovered somewhat from his taste of chlorine. He was no coward, but he knew when he was beaten. He spurred quickly around a corner and away before we could reach him and drag him from the saddle.

I thought that he might reach the gates and escape, and did not begrudge him that boon. To me he seemed the least grisly of all that group of rascally plotters.*

An officer of the guard passed close to me, and I hailed him. "How goes it at the palace?" I asked.

"The rebels are all taken or slain," he answered. "His Magnificence is safe, and has spoken from a balcony, begging that there be no more butchery, and asking that the survivors be delivered to fair trial. He urges peace, even while his tears stream for his dead brother."

"It is not over yet," I admonished him. "Keep watch on the gates. Some mercenaries have been gathered there to help the conspiracy."

"They will never enter this city," he assured me.

I turned from him toward the Arno.

There was one more thing to do, and it lay with me to do it.

CHAPTER XXI

The Christening

CLOSE to the riverside, Guaracco's house neved looked so quiet and yet so forbidding. I ran to the door and tried it. From within a voice challenged me quietly, cautiously.

"I am from Guaracco!" I called at once. "All is lost in the city."

There was a rattling of chains, as if the barrier was being lowered, and I did not wait for the door to open. With my shoulder I bore strongly against it, and it creaked back.

A cry of profane execration greeted me. One of the dwarfs, the ugly one I had stunned the night before, swung up his curved sword. But my own point was quickly in his throat and he crumpled on the threshold, his oaths dying into a blood-choked gurgle. I hurried inside without waiting for him to cease struggling.

"Lisa!" I shouted as I ran through room after room. "Lisa, where are you?"

"Leo!"

It was muffled, little louder than a whisper, but I, having come into the kitchen, traced the direction of her voice. She was beneath me. In the floor showed a great cleated hatchway. She must be in the cellar, among Guaracco's stacked weapons. Seizing the iron ring that served as handle for the door, I heaved it up. Light gleamed from below.

There was no ladder or other way down, but I swung myself into the hole, landing upright on the earthen cellar floor. She was there, seated like a stone figure upon a great chest that must be full of ammunition. Beyond were the stairs that led to the front of the house. Her eyes sought mine in the lantern light.

"Leo," she murmured, as softly as the sigh of wind heard far away. "You have come back."

"Fly away from here!" I gasped at her. "These devil's machines and weapons shall be destroyed within the minute. And we are leaving Florence forever—before Guaracco finds us. Or Lorenzo does either."

"But I must stay," she protested, as though she reminded me of the obvious. "I was told to wait."

"Told by Guaracco!" I cried hotly, for it now was manifest to me that he had bound her to her place by hypnotism, stronger than shackles.

"Guaracco, yes." Her head dipped

*Giacopo de Pazzi was a simple and decent man, who might not have approved of the entire conspiracy. He was later captured, and his mutilated body tossed into the Arno. Another conspirator, Bandini, was a fugitive for months, but was finally haled back to Florence and hanged from the Palazzo Publico.

a little in agreement. "He said that all would be well. A new Florence would be built, with no oppression."

"Lies, lies!" I cried passionately. "He tried to form himself a devil's kingdom here, erected on spilt blood and corpses." I caught her hand. "Come, Lisa!"

I got her to her feet, but it was like lifting a straw dummy.

"I was told to wait, Leo," she said.

My hands seized her shoulders, and I tried to shake her into consciousness.

"Lisa, do you love me? Or is that only an illusion, too, turned on and off by Guaracco like the spigot of a wine cask?"

"Love you, yes." She was definite enough.

"Then come, I say." I backed toward the stairs, drawing her along with me. She looked ahead, and saw something. Her eyes widened, her mouth opened to cry out.

"Leo—danger!"

She tore from my grasp and scurried around me so that she was between me and the stairs. I turned on my heel only swiftly enough to see what she had seen.

GUARACCO had descended upon me and his hand was lifted, holding something that gleamed. I heard the bark of an explosion, saw a sudden ghostly puff of smoke. And Lisa sagged against me, into my arms. Her eyes were suddenly bright and wakeful again, and her mouth tremblingly smiled. I eased her slackening body to the floor. I knew that she was dead.

"Do not move, Leo!" warned Guaracco hastily. Still at the foot of the stairs, he leveled his weapon at me pointblank. "This fires six shots! It is one of the guns I made according to the science I gleaned from you."

It was, indeed, a revolver. His thumb had drawn up the hammer, and the muzzle stared me between the eyes. I gathered for a spring, but paused. I did not fear to die, but I feared that Guaracco might live.

"You have failed," were the first words I spoke to him.

"Failed?"

His eyes flickered down toward Lisa. With his rebellion crumpled around his head, he could still smile in triumph.

"Failed," I said again. "Lisa was under your spell, but she broke it to save my life. She loved me. Her love was more than your dirty conjuring tricks."

"True, true," he admitted smoothly. "And I am glad, after all, that she did save your life. Leo, there is still time and opportunity for us to help each other."

I curled my lip in contempt, but he went on:

"Many have died today. Why should we? If you do not understand, Leo, look at what else I bring."

His free left hand extended toward me, and between thumb and finger flashed a globule of rosy-silver light.

"It is a pearl," he intoned in a new voice. "The pearl of sleep, Leo. Look upon it!"

I looked. I felt my senses sway, but held them firm. It was only a pearl. The light did not wax or blur or brighten. I was resisting his spell. It was only a pearl that Guaracco held, trying to spellbind me with it. But I stared, and would not let it have power over me.

"You are going to sleep, Leo," Guaracco was intoning. "To sleep—and all is well between us."

I gazed, my mind at work. A way opened to revenge and victory, if I were cunning. Slowly, stiffly, simulating a trance, I made a step toward him. He thought himself the winner.

"Leo, Leo, I am your friend," he tried to din into me. "I am Guaracco, who adopted you as his cousin, made you great and wealthy. And you will be grateful and help Guaracco. You will tell Lorenzo de Medici that Guaracco, too, fought to put down this conspiracy. Those who can testify otherwise are dead."

It would have worked had he been able truly to impose his will. I let him deceive himself, and took another step. We were almost within arm's reach of each other. The leveled revolver was bigger and brighter to my gaze than the pearl. I kept my face

gravenly rapt, my eyes staring, but I was awake and resolute. Would he suspect?

"Once we are believed, we can still work together, Leo," Guaracco was insisting. "Plan again, and better and bigger. We may yet rule the world!"

I threw myself upon him.

HE pulled trigger, but my right hand was upon the revolver. Pain bit my thumb, that had thrust itself between breech and hammer, and the firing pin drove deep into the base of the nail. A moment more and I wrenched it away and flung it behind me. It exploded with the shock, and the bullet sang into the beam over-

Two of his fingers soared away, and blood fountained forth.

"Wait, Leo!" he changed his tune at once. "I must not die, if you expect to live and—"

I did not expect to live, and made him no answer. His sword was up, and I beat it momentarily aside and slashed at his face. Quickly he parried, but only half-broke the force of the blow. His cheek was laid open, and his beard suddenly gleamed a deeper red.

"The time reflector," he yammered at me, on sudden inspiration. "Only I can show you how to rebuild, improve, get back to your own age!"

He should have saved his breath,

head. A moment later we had both drawn swords.

"You triple traitor!" howled Guaracco, parrying my first lunge. "Come then, if you will have death this way!"

I made no reply, but deflected his riposte—the trick he had learned from me. His chest was exposed to a return riposte, but I knew the mail that defended it, and swept my blade in a quick arc. He got his brow out of the way with millimeters to spare.

Falling back, he tried to clutch at another pistol, one of a heap in an open box, but I nicked at his outflung hand, and got home. He whimpered.

for he was panting and choking. His thrusts were unsteady, easy to foil. My digging lunge at his belly, while it did not pierce the chain mail, drove most of the wind out of him. It drove out the fight, too. He tried to retreat to the stairs, but misjudged and brought his back against the plank-faced wall. He threw down his sword and lifted his hands.

"Mercy!" he begged. "I surrender! Leo!"

His unwounded right palm spread itself against a stout timber. I darted my point at it, all my weight behind. A tremulous, unmanned howl from

Guaracco—his hand was spiked to the wood by my blade, like a big pale spider on a bodkin.

Then I let go my hilt and stepped back. I spared no eye to my enemy's plight, nor ear to his prayers.

Lisa lay still and misty pale, but there was no blood on her calm face. I closed her eyes, straightened her body and folded her hands upon her quiet breast. In her last instant of life her mouth had fallen into the little close-lipped smile I had known. Kneeling almost to earth, I kissed her once, and her face was still warm.

"Leo, Leo!" sobbed Guaracco in shameless entreaty. "What will you do?"

He was trying to seize my sword and wrench it away, but the point was tightly wedged in the wood and his free left hand, shorn half in two by my previous stroke, could not grip the hilt. He remained a prisoner.

I let my actions answer him. From its peg I snatched the lantern. With my foot I stirred some straw and rubbish into a mass against the foot of a barrel. He saw what I intended.

"There is gunpowder in that barrel!" he shrieked.

I knew it, but still I spoke him no word. With all my strength I dashed the lantern down. The glass shattered, the straw blazed up. And then I raced away up the steps. Behind me fire gushed up luridly.

AT the door of the house I almost trampled upon Guaracco's remaining dwarf, the handsomer one. He stared at me in mute horror, then at the glow behind me. He seemed to read in my face what had happened, for he scuttled past and dived into that flaming cellar as into a swimming bath.

"Master! Master!" he screamed.

I gained the street, ran along it for more than a score of paces before the whole world seemed to turn into thunder and lightning. I was flung to my face, skinning my cheek on the pavement, but I rose and ran on. That was the end of Guaracco's house—his weapons—his dwarf—himself—Lisa.

Nothing remained for me to do save to go and give myself up to Lorenzo. . . .

In the evening I stood in the groined, frescoed chamber where first the ruler of Florence had given me audience. Lorenzo de Medici was seated opposite in his chair of state, across the ebony and ivory table. His collar hung loose over his neck bandage, but otherwise he was the same Lorenzo as ever—alert, self-contained, far-thinking.

"I am driven to believe all points of your strange story," he said gently. "And no one can deny that you have saved Florence and me. Poliziano says so, and so do the officers of the guard. I grant you full pardon, and I ask you to pardon me. It seems that I drove you away once by my misjudgment. It shall not happen again."

I bowed thanks, but I could think only of Lisa. He read that tragic thought.

"Sorrow touches you, my friend, as it has touched me. My brother died today, as did your sweetheart. But perhaps work will comfort us both, and Florence hath need of my rule and your science."

"You are right, Magnificence," I agreed.

"Yours will be a great laboratory," he promised. "Aye, and a studio of your own, in the gardens of San Marco. Above all, honor and safety. But one chief change must be made in you."

"And that?"

"This matter of your strange journey from another age which, though I believe, I do not begin to understand. It must remain a secret between us. Since the death of Guaracco and your lady Lisa, you and I alone know it. Others might think you a devil's apostle, and urge that you be borne to the stake." He paused, pursed his lips, as if completing some decision. "Therefore it is expedient that we provide you with an ordinary birth and family among us—a father, and all the rest."

"A father?" I echoed him, not comprehending.

"Aye, that. I know the very man—an attorney who is in my confidence,

and who has several children already. If I ask it, he will gladly own you as yet another son. The records can be arranged in various offices to make it believeable. Forget that barbarous, unpronounceable surname of yours. The name of the attorney, your new father, is Piero da Vinci."

"Da Vinci!"

I sank back into my chair, implications rushing upon me with bewildering shock and speed.

"Leave all arrangements to me," said Lorenzo. "It is my peculiar talent to make perfect all such little things." His bitterly ugly face grew suddenly beautiful with that warm smile of his. "From this day forward you are Leo—no, Leonardo da Vinci."

And I knew the rich life given me to lead, as crown of the age and inspiration of ages to come. My scientific gropings will show the way to doctors, master engineers. My paintings will dazzle nations. Michelangelo will hate me too much, and Raphael admire me too much, but both will be the better for my examples.

One greatest picture I shall create, with LaGioconda as model to be sure, but preserving the smile and spirit of Lisa, Mona Lisa. And I shall die old and great, with kings weeping for me.

I am Leonardo da Vinci.

●

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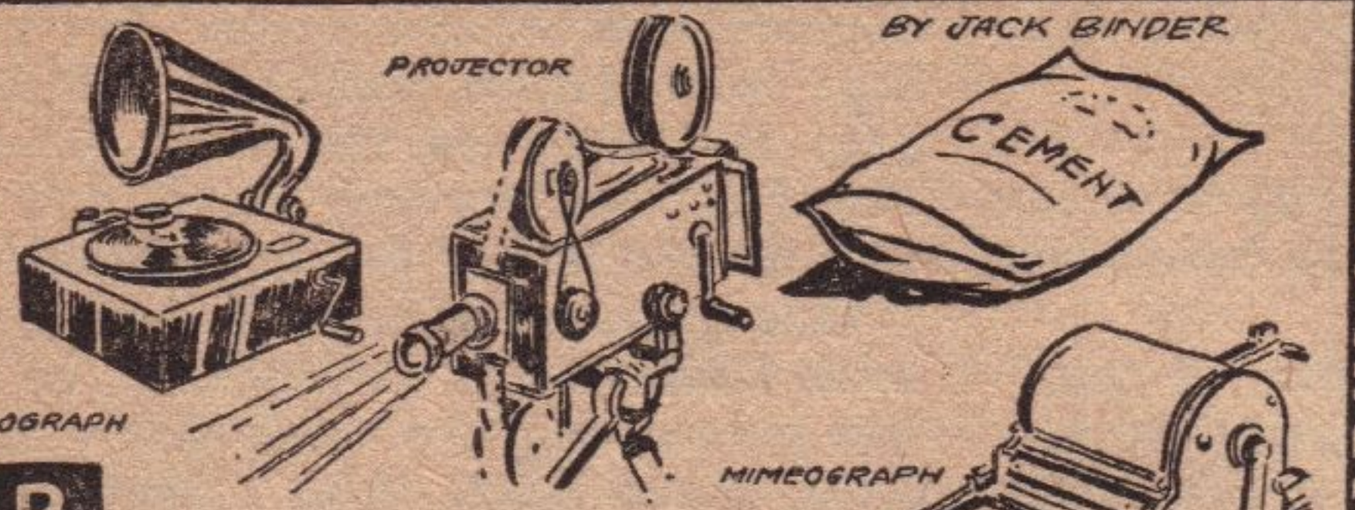
THEY CHANGED THE WORLD

The LIFE STORY OF THOMAS ALVA EDISON
THE GREATEST INVENTOR OF ALL TIME

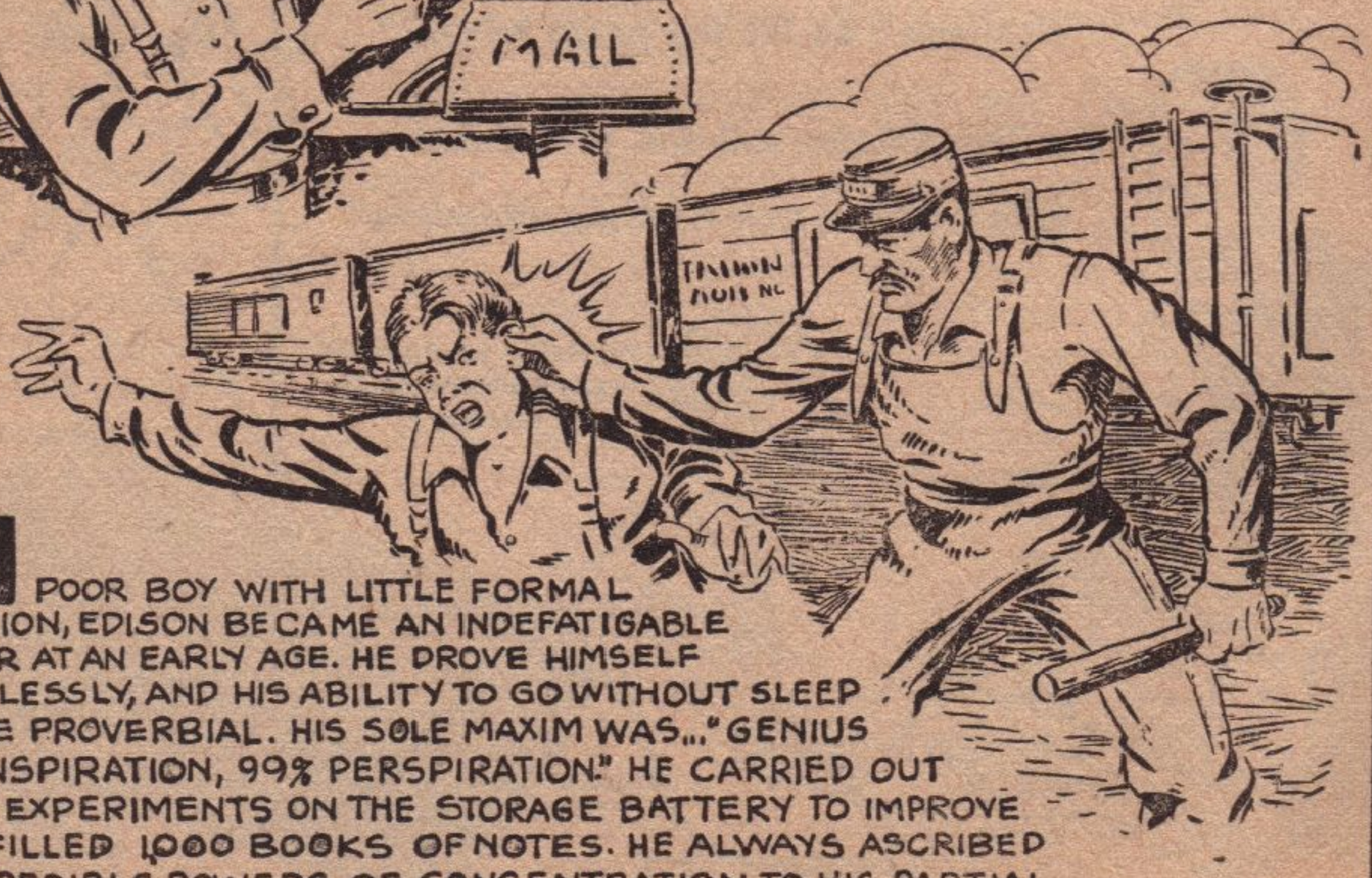
BY JACK BINDER



BORN 1847
DIED 1931

BORN WHILE THE INDUSTRIAL AGE WAS JUST GATHERING MOMENTUM, THOMAS A. EDISON GAVE IT A TREMENDOUS BOOST. IT IS ESTIMATED THAT, ALONE, THROUGH HIS 1,400 PATENTS, EDISON INCREASED AMERICA'S NATIONAL WEALTH *BY TEN BILLION* DOLLARS! THE PHONOGRAPH, MOTION PICTURES, ELECTRIC LIGHT, MIMEOGRAPH, DICTAPHONE AND PORTLAND CEMENT ALL CAME FROM THE SKILLED FINGERS OF THIS MASTER INVENTOR!

PRACTICAL-MINDED, EDISON SOLD HIS INVENTIONS TO THE HIGHEST BIDDER. MOST OF HIS MONEY WENT INTO FURTHER EXPERIMENTATION. AT THE AGE OF 23 HE WAS GIVEN A $40,000 CHECK FOR AN IMPROVED STOCK-TICKER. IT IS SAID THAT AT FIRST, NOT KNOWING WHAT A CHECK WAS, HE THOUGHT HE HAD BEEN TRICKED!

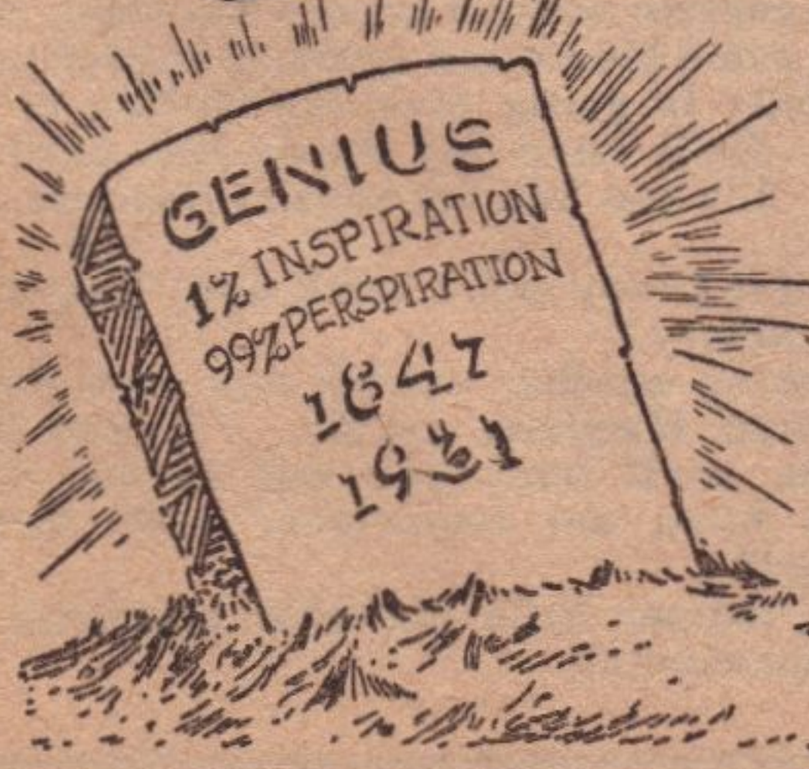


A POOR BOY WITH LITTLE FORMAL EDUCATION, EDISON BECAME AN INDEFATIGABLE WORKER AT AN EARLY AGE. HE DROVE HIMSELF RELENTLESSLY, AND HIS ABILITY TO GO WITHOUT SLEEP BECAME PROVERBIAL. HIS SOLE MAXIM WAS... "GENIUS IS 1% INSPIRATION, 99% PERSPIRATION." HE CARRIED OUT 50,000 EXPERIMENTS ON THE STORAGE BATTERY TO IMPROVE IT. HE FILLED 1,000 BOOKS OF NOTES. HE ALWAYS ASCRIBED HIS INCREDIBLE POWERS OF CONCENTRATION TO HIS PARTIAL DEAFNESS, RESULTING WHEN, AS A BOY, HIS EARS WERE BOXED!

Next Issue: The Life-Story of LUTHER

EDISON LAUNCHED THE "AGE OF ELECTRICITY" SINGLE-HANDED, ON NEW YEAR'S EVE OF 1879! HIS WORK-SHOP WAS THE SCENE OF HIS HISTORIC "LIGHT CARNIVAL"...ELECTRIC LAMPS WERE THE SOLE ILLUMINATION. CROWDS CAME BY FOOT, CARRIAGE AND TRAIN, TO SEE THIS MIRACLE WROUGHT BY THE AMAZING GENIUS OF THE WIZARD OF MENLO PARK...SHORTLY AFTERWARD, HE BUILT THE WORLD'S FIRST POWER STATION IN NEW YORK CITY, DESIGNING MOST OF THE DYNAMOS HIMSELF.

IN 1877, EDISON'S FAITHFUL "INSOMNIA SQUAD"... HIS OVERWORKED BUT ENTHUSIASTIC STAFF OF ASSISTANTS... LISTENED EAGERLY AS A LITTLE HORNED INSTRUMENT BAWLED BACK THE WORDS OF THEIR CHIEF RECITING "MARY HAD A LITTLE LAMB". IT WAS THE FIRST PHONOGRAPH... THE FIRST RECORD... AND THE FIRST TIME THAT WORDS WERE EVOKED FROM A RECORDING INSTRUMENT. IN 1891, EDISON'S "KINETOSCOPE" WAS EXHIBITED, THE FIRST MOVING PICTURE DEVICE. IN NEITHER CASE DID EDISON REALIZE WHAT MIRACULOUS PRODIGIES HE HAD BEQUEATHED TO HUMANITY!



LIKE A WIZARD WHO HAD ENSLAVED THE LIGHTNING, EDISON CREATED A MYRIAD OF WONDERS WITH ELECTRICITY. THE BULK OF HIS PATENTS WERE IMPORTANT IMPROVEMENTS IN TELEGRAPH, TELEPHONE AND ELECTRICAL POWER MACHINERY. HE FORESAW ELECTRICAL TRAINS LONG BEFORE THEY BECAME A REALITY. WITHOUT EDISON, WE MIGHT BE JUST BEGINNING TO EXPLOIT ELECTRICITY TODAY, INSTEAD OF ENJOYING ITS MIRACLES WHICH HAVE BECOME EVERYDAY COMMON PLACES!

BURBANK, Master of Plant Life

VALLEY OF DREAMS

A COMPLETE HALL OF FAME NOVELET

By STANLEY G. WEINBAUM

Autor of "A Martian Odyssey," "The Black Flame," etc.

EDITOR'S NOTE: Some stories are forgotten almost as soon as they are printed. Others stand the test of time.

Because "Valley of Dreams," by Stanley G. Weinbaum, has stood this test, we are nominating it for SCIENTIFICTION'S HALL OF FAME.

In each issue we will nominate—and reprint—another favorite of the past.

Will you vote for your favorite? Write and tell us what it is.

We hope in this way to bring a new permanence to the science fiction gems of yesterday and to perform a real service for the science fiction devotees of tomorrow.

CHAPTER I

Martian Expedition

CAPTAIN HARRISON of the Ares expedition turned away from the telescope in the rocket's bow.

"Two weeks more," he remarked. "Mars only retrogrades for seventy days in all, relative to the Earth. We've got to be homeward bound during that period, or wait a year and a half for old Mother Earth to catch up with us again. How'd you like to spend a winter here?"

Dick Jarvis, chemist of the party, shivered as he looked up from his notebook.

"I'd just as soon spend it in a liquid-air tank! These eighty-below-zero summer nights are plenty for me."

"Well," mused the captain, "the first successful Mars expedition ought to be home long before then."

"Successful if we get home," corrected Jarvis. "I don't trust these cranky rockets. Walking back from a rocket ride is a new sensation to me."

"Which reminds me," returned Harrison. "We've got to recover your films, if we're to pull this trip out of the red. Our shots ought to pack 'em to the doors. And the broadcast rights, too. We might even show a profit for the Academy."

"What interests me," countered Jarvis, "is personal profit. I'm going to grab what profit there is, and never, never, get any farther from Earth than a good stratosphere plane'll take me."

"I'll lay you odds you'll be back here year after next," grinned the Captain. "You'll want to vist your pal, that t[illegible] ostrich."

"Tweel?" Jarvis' tone sobered. "I wish I hadn't lost him. I never even had a chance to thank him for saving my life."

"A pair of lunatics, you two," observed Harrison. "There comes the Sun. Listen, Dick. You and Leroy take the auxiliary rocket and salvage those films."

Jarvis stared. "Me and Leroy? Why not me and Schatz? An engineer might get us there and back if the rocket fizzled."

The captain nodded toward the stern, from which came blows and guttural expletives.

"Schatz is going over the insides of the Ares. He'll have his hands full until we leave. It's too late for repairs once we cast off."

"And if Leroy and I crack up? That's our last auxiliary."

"Pick up another ostrich and walk back," suggested Harrison gruffly. "If you have trouble, we'll hunt you out in the Ares. Those films are important." He turned. "Leroy!"

The dapper little biologist appeared, his face questioning.

The Famous Sequel to "A Martian Odyssey"

I saw every beautiful woman I'd ever known, and all of them pleading for my attention

"You and Jarvis are to salvage the auxiliary," the captain said. "Radio back at half-hour intervals."

Leroy's eyes glistened. "Perhaps we land for specimens—no?"

"Land if you want to. This golf ball seems safe enough."

"Except for the dream beast," muttered Jarvis with a faint shudder. "Say, suppose I have a look for Tweel's home! He must live off there somewhere, and he's the most important thing we've seen on Mars."

Harrison hesitated. "All right," he decided. "Have a look. There's enough food and water to last a couple of days. But keep in touch with me, you saps!"

Jarvis and Leroy went through the air-lock out to the gray plain. The thin air, scarcely warmed by the rising Sun, bit like needles. The two men dropped to a sitting posture. Trained acclimatization chambers back on Earth, their bodies would soon accommodate themselves to the tenuous air. Leroy's face, as always, turned a smothered blue, and Jarvis heard his own breath rasping and rattling in his throat. But in five minutes the discomfort passed. They rose and entered the little auxiliary rocket that rested beside the black hull of the Ares.

The under-jets roared out their fiery atomic blast. Harrison watched the projectile trail its flaming way into the south, then turned back to his work.

It was four days before he saw the rocket again. Just at evening, it flashed out of the southern heavens, easing gently down on the flaming wings of the under-jets. Jarvis and Leroy emerged, passed through the swiftly gathering dusk.

HE surveyed the two. Jarvis was tattered and scratched, but apparently in better condition than Leroy. The little biologist was pale as the nearer moon that glowed outside. One arm was bandaged in thermoskin and his clothes hung in rags. But his eyes were frightened, and that was odd. Leroy was no coward or he'd never have been chosen by the Academy for the first Martian expedition. But the fear in his eyes was more understandable than that queer fixity of gaze like one in a trance.

"Like a chap who's seen Heaven and Hell together," Harrison expressed it to himself.

He was yet to discover how right he was. He assumed a gruffness as the weary pair sat down.

"You're a fine looking couple. I should've known better than to let you wander off alone." He paused. "Is your arm all right, Leroy? Need any treatment?"

"It's just gashed," Jarvis answered. "No danger of infection. Leroy says there aren't any microbes on Mars."

"Well," exploded the Captain, "let's hear it, then! Your radio reports sounded screwy. 'Escaped from Paradise!' Huh!"

"I didn't want to give details on the radio," said Jarvis soberly. "You'd have thought we'd gone loony."

"I think so, anyway. Begin at the beginning."

"Well," began Jarvis, "we got started all right, and flew due south along the same course I'd followed last week. I was getting used to this narrow horizon, but four miles away looks eight when you're used to terrestrial curvature. A little hill looks like a mountain until you're almost over it."

"I know that," grunted Harrison.

"Yes, but Leroy didn't, and I spent our first couple of hours trying to explain it to him. By the time he understood, we were past Cimmerium and over Xanthus desert. Then we crossed the canal with the mud city, and the place where Tweel shot the dream beast. And of course we had to land so Leroy could practice his biology on the remains. The thing was still there. No sign of decay. Couldn't be, without bacterial forms of life, and Leroy says Mars is sterile as an operating table.

"About a hundred little gray-green biopods had fastened onto the thing and were growing and branching. Leroy found a stick and knocked 'em off, and each branch broke away and became a biopod crawling around with the others. So he poked around at the creature, while I looked away from it. Even dead, that rope-armed devil gave me the creeps. And then came the surprise. The thing was part plant!"

"*C'est vrai!*" confirmed the biologist. "It's true!"

"It was a big cousin of the biopods," continued Jarvis. "Leroy figures that all Martian life is neither plant nor animal. Everything has both natures in it. I think he's right, especially when I recall how Tweel rested, sticking his beak in the ground and staying that way all night. Perhaps his beak was a root, and he got his nourishment that way."

"Sounds nutty to me," observed Harrison.

"Well," continued Jarvis. "Leroy had to catch a sample of the walking grass. We were ready to leave when a parade of the barrel creatures rushed by with their push-carts. They hadn't forgotten me, either. They all drummed out, "We are v-r-r-iends —Ouch!' just as they had before. Leroy wanted to shoot one and cut it up. I remembered the battle Tweel and I had with them, and vetoed the idea. But he did hit on what they did with all the rubbish they gathered."

"MADE mud-pies, I guess," grunted the captain.

"More or less," agreed Jarvis. "They use it for food, Leroy thinks. If they're part vegetable, they'd want soil with organic remains in it to make it fertile. That's why they ground up sand and biopods and other growths all together. See?"

"Dimly," countered Harrison. "How about the suicides?"

"Leroy had a hunch there, too. The suicides jump into the grinder when the mixture has too much sand and gravel, to adjust the proportions."

"Rats!" said Harrison disgustedly. "Why couldn't they throw in extra branches?"

"Because suicide is easier. These creatures can't be judged by Earthly standards. They probably don't feel pain, and they haven't individuality. Ants are willing to die for their ant-hill. So are these creatures."

"So are men," observed the captain, "if it comes to that."

"Yes, but men aren't exactly eager. It takes emotion to work 'em up to the point of dying for their country. These things do it all in the day's work.

"Well, we took some pictures of the dream beast and the barrel creatures. Then we sailed over Xanthus, keeping as close to the meridian of the *Ares* as we could. Pretty soon we landed near the pyramid builder. There it was, breathing in silicon and breathing out bricks as if it had eternity to do it in —which it has. Leroy wanted to dissect it with a Boland explosive bullet, but I talked him out of it.

"He peeped into the hole on top and nearly got beaned by the arm coming up for a brick. When he chipped off a few pieces, it didn't disturb the creature a bit. He found the place I'd chipped and tried to see if there was any sign of healing. He decided he could tell better in two or three thousand years. So we took a few shots of it and sailed on.

"Mid-afternoon, we located the wreck of my rocket. Not a thing disturbed. We picked up my films. I figured from Tweel's pointing south that he lived somewhere near Thyle. We judged that the desert we were in was Thyle II. Thyle I should be east of us. On a hunch, we decided to have a look at Thyle I, and away we buzzed."

"Der motors?" queried Schatz, breaking his long, intent silence.

"For a wonder, we had no trouble, Karl. Your blast worked perfectly. So we hummed along, pretty high up. Thyle II I'd seen on Mars, except the cliffs that bounded Xanthus and Thyle II. We flew over that valley—"

Jarvis paused suddenly and shuddered. Leroy, whose color had begun to return, seemed to pale. The chemist resumed.

"Well, the valley looked all right—then! Just a gray waste, probably full of crawlers like the others. We circled back over the city. Say, I want to tell you that place was gigantic! At first I thought the size was due to the nearness of the horizon, but it wasn't that. We sailed right over it. But the Sun dropped out of sight right then. I knew we were pretty far south—latitude sixty—but I didn't know just how much night we'd have."

CHAPTER II

Ibis Headed Thoth

HARRISON glanced at a Schiaparelli chart.

"About sixty, eh? Near what corresponds

A Master of Scientifiction

VALLEY OF DREAMS is the sequel to A MARTIAN ODYSSEY, the interplanetary story that revolutionized scientifiction! Once again we introduce you to Stanley G. Weinbaum's unforgettable group of spatial pioneers—Dick Jarvis, Captain Harrison, Leroy, Schatz—and that unpredictable walking Martian mystery, Tweel.

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They will remain forever in the hearts and memories of fantasy followers, as will the fame of their creator who was scientifiction's most widely-recognized master.

Stanley G. Weinbaum

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spread out like an orange carpet. After awhile we crossed the gray branch of Mare Chronium that bounded it. There was Thyle I—same orange-hued desert as its mate. We veered south, toward Mare Australe, and followed the edge of the desert. And toward sunset we spotted it."

"Shpotted?" echoed Schatz. "Vot vas shpotted?"

"The desert was spotted—with buildings! Not one of the mud cities of the canals, although a canal went through it, a continuation of the one Schiaparelli called Ascanius.

"We were probably too high to be visible, and we couldn't see anything even with the glasses. It was nearly sunset, anyway, so we didn't plan on dropping in. We circled the place. The canal went out into Mare Australe. And there, glittering in the south, was the melting polar ice-cap! Off to the southeast, was a valley—the first irregularity to the Antarctic circle. You'd have about four hours of night at this season. Three months from now you'd have none at all."

"Three months!" echoed Jarvis, surprised. Then he grinned. "Right. I forgot the seasons here are twice as long as ours. Well, we sailed out into the desert about twenty miles, and there we spent the night. You're right about the length of it. We had about four hours of darkness, which left us fairly rested. We ate breakfast and called our location to you.

"We sailed toward the city from the east, and it loomed up like a range of mountains. Lord, what a city! New York might have higher buildings. Chicago probably covers more ground. But for sheer mass, those structures were in a class by themselves. Gargantuan! There was a queer look about the place. though. You know how a terrestrial city sprawls out, suburbs, residential

sections, factory districts, parks, highways. There was none of that here. The city rose out of the desert as abruptly as a cliff.

"The architecture was strange too. Setbacks in reverse, so a building with a small base could spread out as it rose, would be a valuable trick in New York. But to do it, you'd have to transfer Martian gravitation there!

"Well, you can't land a rocket in a city street, so we put down right next to the canal. We took cameras and revolvers and started for a gap in the wall of masonry. The city was in ruin—abandoned, deserted, dead as Babylon! It's empty streets were deep under sand."

"A ruin, eh?" commented Harrison. "How old?"

"How could we tell?" countered Jarvis. "The next expedition ought to carry an archeologist—and a philologist, too! Things weather so slowly here that most of the buildings might have been put up yesterday. The only aging factors are the erosion of the wind—and that's negligible in this atmosphere—and the cracks caused by changing temperature. And meteorites must crash down occasionally on the city. We've seen four strike ground right here near the *Ares*."

"SEVEN," corrected the captain. "Three dropped while you were gone."

"Well, damage by meteorites must be slow, anyway. My guess at the city's age—and it may be wrong by a big percentage—would be fifteen thousand years. Even that's older than the Late Stone Age on Earth.

"So Leroy and I crept up to those tremendous buildings feeling like pygmies, and talking in whispers. I tell you, it was ghostly walking down that dead and deserted street. We felt like intruders, as if the great race that had built the place might resent our presence even across a hundred and fifty centuries. It was quiet as a grave, but we kept imagining things and peeping down the dark lanes between buildings and looking over our shoulders. When we saw occasional openings in those vast walls, we expected to see some horror peering out.

"Then we reached an edifice with an open arch. We eased a few feet into the darkness and the passage debouched into a colossal hall. Far above us, a little crack let in a pallid ray of daylight, not nearly enough to light the place. I said something to Leroy, and a million thin echoes came out of the darkness. We began to hear other sounds—slithering, rustling noises, whispers, sounds like suppressed breathing. Something black and silent passed between us and that far-away crevice of light.

"Then we saw three little greenish spots of luminosity in the dusk to our left. We stood staring at them, and suddenly they all shifted at once. Leroy yelled. They were eyes!

"We stood frozen for a moment. Leroy's yell reverberated between the distant walls. There were mumblings, mutterings, and strange soft laughter. The three-eyed thing moved again. Then we broke for the door!

"We felt better out in the sunlight, but neither of us suggested another look. We did see the place later, and that was queer, too. But you'll hear about it when I come to it. We just loosened our revolvers and crept on.

"The ghostly street curved and twisted and subdivided. I kept careful note of our directions in that gigantic maze. Without our thermo-skin bags, night would finish us, even if what lurked in the ruins didn't. By and by, I noticed that we were veering back toward the canal. The giant buildings seemed a little less massive than those behind us, though we still felt like a pair of ants crawling down Broadway. At the bank of the canal, the buildings ended, and there were only a few dozen ragged stone huts. We rounded a corner and there was Tweel!

"I yelled 'Tweel!' He just stared, and then I realized that he wasn't Tweel, but another Martian of his sort. Tweel's feathery appendages were more orange-hued and he stood several inches taller than this one. Leroy was sputtering in excitement, and the Martian kept his vicious beak directed at us. So I stepped forward as peace-maker. I repeated 'Tweel'? very questioningly, and finally had to give it up. We couldn't connect.

"Leroy and I walked toward the huts, and the Martian followed us. Twice he was joined by others. Each time I tried yelling 'Tweel' at them, they just stared at us. So we ambled on with the three trailing us. Then it suddenly occurred to me that my Martian accent might be at fault. I faced the group and tried trilling it out the way Tweel himself did. 'T-r-r-rwee-r-rl!' Like that.

"And that worked! One of them spun his head around a full ninety degrees, and screeched, 'T-r-r-rwee-r-rl.' Like an arrow from a bow, Tweel came sailing over the nearer huts to land on his beak in front of me!

"MAN, we were glad to see each other. Tweel set up a twittering and chirping like a farm in summer and went sailing up and coming down on his beak. I would have grabbed his hands, only he wouldn't keep still long enough."

"The other Martians and Leroy just stared. Tweel stopped bouncing, and there we were. After I'd said, 'Tweel,' a couple of times and he'd said 'Tick,' we were more or less helpless. However, I suggested that he guide us around the place if he weren't busy. I put over the idea by pointing back at the buildings and then at him and us.

"Well, apparently he wasn't too busy, for he set off with us, leading the way with one of his hundred and fifty-foot nosedives that set Leroy gasping. When we caught up, he said something like, 'One, one, two—Two, two, four—No, no—Yes, yes—Rock—No breet.' That didn't seem to mean anything. Perhaps he was merely running over his vocabulary to refresh his memory.

"Anyway, he showed us around. He had a light in his black pouch, good enough for small rooms, but simply lost in the colossal caverns we went through. Those vast empty chambers were a mystery to us. They didn't seem suitable for living quarters, or even for commercial purposes. They might have

been power-houses, but where were the remains of the machinery?

"The whole place was a mystery. Sometimes Tweel would show us through a hall that would have housed an ocean liner. He'd seem to swell with pride, and we couldn't make a damn thing of it! As a display of architectural power, the city was colossal. As anything else it was just nutty!

"But we did see one thing that registered. We came to that same building Leroy and I had entered earlier—the one with the three eyes in it. Well, we were a little shaky about going in there. But Tweel kept saying, 'yes, yes, yes!' So we followed him, staring nervously about for the thing that had watched us. That hall was just like the others, full of murmurs, slithering noises, and shadowy things slipping away into corners. The three-eyed creature must have slunk away with the others.

"Tweel led us along the wall. As his light flashed into an alcove, I saw first just an empty space, and there, squatting on the floor, I saw—it! A creature as big as a rat, it was, gray and huddled, startled by our appearance. It had the queerest, most devilish little face—pointed ears or horns, and satanic eyes that seemed to sparkle with a sort of fiendish intelligence.

"Tweel saw it, too, and let out a screech of anger. The creature rose on two pencil-thin legs and scuttled off with a half-terrified, half-defiant squeak. It darted into the darkness too quickly even for Tweel. As it ran, something waved on its body like a fluttering cape. Tweel screeched angrily at it in genuine rage.

"BUT the thing was gone, and then I noticed the weirdest of imaginable details. Where it had squatted on the floor was —a book!

"I took a step forward. Sure enough, there was some sort of inscription on the pages. Tweel fumed and whistled in wrath, picked up the volume and slammed it into place on a shelf full of others.

"Had the little thing with the fiendish face been reading? Or was it simply eating the pages, getting physical nourishment rather than mental? Or had the whole thing been accidental? Why was Tweel so furious?

"I did notice that the book was entirely undamaged, nor did I see a damaged book among any that we handled. But I have an odd hunch that if we knew the secret of the little cape-clothed imp, we'd know the mystery of the vast abandoned city and the decay of Martian culture.

"Well, Tweel quieted down after a while and led us completely around that tremendous hall. It had been a library, I think. At least, there were thousands upon thousands of those queer black-paged volumes printed in wavy lines of white. There were pictures, too, in some, and some of these showed Tweel's people. That's a point, of course. It indicates that his race built the city and printed the books. I don't think the greatest philologist on Earth will ever translate one line of those records. They were made by minds too different from ours.

"Tweel could read them, naturally. He twittered off a few lines, and then I took a few of the books, with his permission. He said 'no, no!' to some and 'yes, yes!' to others. Perhaps he kept back the ones his people needed, or perhaps he let me take the ones he thought we'd understand most easily. I don't know. The books are out in the rocket.

"Then he held that dim torch of his toward the walls. Lord, what pictures! They stretched up and up into the blackness of the roof, mysterious and gigantic. I couldn't make much of the first wall. It seemed to be a portrayal of a great assembly of Tweel's people. Perhaps it was meant to symbolize Society or Government. But the next wall showed creatures at work on a colossal machine of some sort, and that would be Industry or Science. The back wall had corroded away in part. From what we could see, I suspected the scene was meant to portray Art. But it was on the fourth wall that we got the real shock.

"I think the symbol was Exploration or Discovery. This wall was a little plainer, because the moving beam of daylight from that crack lit up the higher surface and Tweel's torch illuminated the lower. We made out a giant seated figure, one of the beaked Martians like Tweel, but with every limb suggesting heaviness, weariness. The arms dropped inertly on the chair, the thick neck bent and the beak rested on the body, as if the creature could scarcely bear its own weight. Before it was a queer kneeling figure. At sight of it, Leroy and I almost reeled against each other. It was, apparently, a man!"

"A man!" bellowed Harrison. "A man, you say?"

"I said apparently," retorted Jarvis. "The artist had exaggerated the nose almost to the length of Tweel's beak. But the figure had black shoulder-length hair. Instead of the Martian four, there were *five* fingers on its outstretched hand! It was kneeling, and on the ground was a pottery bowl full of food-offering. Leroy and I thought we'd gone screwy!

"Tweel was squeaking and pointing at the figure, and saying 'Tick! Tick!' So he must have recognized the resemblance. It was Leroy who made the important comment; he looked at the Martian and said, 'Thoth! The god Thoth!"

"*OUI!*" confirmed the biologist. "*Comme l'Egypte!*"

"Yeah," said Jarvis. "Like the Egyptian ibis-headed god—the one with the beak. Well, no sooner did Tweel hear the name Thoth than he pointed at himself and said, 'Thoth! Thoth!' Of course he often did queer things, but we both thought he was trying to tell us that his race called themselves Thoth. Do you see what I'm getting at?"

"I see, all right," said Harrison. "You think the Martians paid a visit to the Egyptians. Well, you're off. There wasn't any Egyptian civilization fifteen thousand years ago."

"Wrong!" grinned Jarvis. "It's too bad we haven't an archeologist with us, but Le-

roy tells me that there was a stone-age culture in Egypt then, the pre-dynastic civilization."

"Well, even so, what of it?"

"Plenty! The attitude of the Martian, heavy and weary—the strain of terrestrial gravitation. Leroy tells me Thoth was the Egyptian god of philosophy and the *inventor of writing?* Get that?"

"Well, I'll be hanged! But what about the nose on the Egyptian? Do you mean to tell me that stone-age Egyptians had longer noses than ordinary men?"

"Of course not! Don't human beings tend to relate everything to themselves? That's why dugongs and manatees started the mermaid myths—sailors thought they saw human features on the beasts. So the Martian artist, drawing either from descriptions or imperfect photographs, naturally exaggerated the size of the human nose to a degree that looked normal to him. Or anyway, that's my theory."

"Well, it'll do as a theory," grunted Harrison. "What I want to hear is why you two got back here looking like a couple of year-before-last bird's nests."

CHAPTER III

Paradise and Hell

JARVIS shuddered again, and cast another glance at Leroy. The little biologist was recovering some of his accustomed poise, but he returned the glance with an echo of the chemist's shudder.

"We'll get to that," resumed Jarvis. "Meanwhile I'll stick to Tweel and his people. We spent the better part of three days with them. We took pictures of everything possible. I even tried to photograph the gigantic mural in the library, but I don't suppose it'll show. And that's a pity, since it's undoubtedly the most interesting object we've found on Mars, at least from a human viewpoint.

"Tweel was a very courteous host. He took us to all the points of interest—even the new water-works."

Schatz' eyes brightened. "Vater-vorks? For vot?"

"For the canal, naturally. They have to build up a head of water to drive it through. That's obvious." Jarvis looked at the captain. "You told me yourself that to drive water from the polar caps of Mars to the equator was equivalent to forcing it up a twenty-mile hill, because Mars is flattened at the poles and bulges at the equator just like Earth."

"That's true," agreed Harrison.

"Well, this city was one of the relay stations to boost the flow. Their power plant was the only building that seemed to serve any useful purpose, and that *was* worth seeing. I wish you'd seen it, Karl. It's a Sun-power plant!"

Harrison and Schatz stared.

"SUN-POWER!" grunted the captain. "That's primitive!"

"Not as primitive as all that," corrected Jarvis. "The sunlight focused on a queer cylinder in the center of a big concave mirror, and they drew an electric current from it. The juice worked the pumps."

"A t'ermocouple!" ejaculated Schatz with conviction.

"That sounds reasonable. You can judge by the pictures. But the queerest was that the machinery was tended, not by Tweel's people, but by some of the barrel-shaped creatures like the ones in Xanthus!"

He gazed around at the faces of his auditors. There was no sign of any desire to comment.

"Get it?" At their silence, he proceeded. "I see you don't. Leroy figured it out, but whether rightly or wrongly, I don't know. He thinks that the barrels and Tweel's race have a reciprocal arrangement like—well, like bees and flowers on Earth. The flowers give honey for the bees. The bees carry the pollen for the flowers. See? The barrels tend the works and Tweel's people build the canal system.

"The Xanthus city must have been a boosting station. That explains the mysterious machines I saw. And Leroy believes further that it isn't an intelligent arrangement—not on the part of the barrels, at least. But it's been done for so many thousands of generations that it's become instinctive, a tropism like the actions of ants and bees. The creatures have been bred to it."

"Nuts!" observed Harrison. "Let's hear you explain the reason for that big empty city, then."

"Sure. Tweel's civilization is decadent, that's the reason. It's a dying race, and they're an outpost, left to tend the source of the water at the polar cap. It's the last gasp of a race that reached a higher peak of culture than Man!"

"Huh?" said Harrison. "Then why are they dying? Lack of water?"

"I don't think so," responded the chemist. "If my guess at the city's age is right, fifteen thousand years wouldn't make enough difference in the water supply—nor a hundred thousand, for that matter."

"*Das wasser,*" cut in Schatz. "Vere goes dot?"

"Even a chemist knows that!" scoffed Jarvis. "Every time there's a lightning flash on Earth, it electrolyzes some water vapor into hydrogen and oxygen. Then the hydrogen escapes into space, because gravitation won't hold it permanently. And every time there's an earthquake, some water is lost to the interior. Slow—but damned certain."

He turned to Harrison.

"Right, Cap?"

"Right. But here, of course—no earthquakes, no thunderstorms—the loss must be very slow. Then why *is* the race dying?"

"The sun-power plant answers that," countered Jarvis. "Lack of fuel! Lack of power! No more oil left, no more coal left, no water-power."

"With the limitless energy of the atom?" exploded Harrison.

"They don't know about atomic energy. probably never did. Must have used some other principle in operating their space ship."

"Then," snapped the captain, "what makes

you rate their intelligence above the human? *We've* finally cracked the atom!"

"Sure we have. We had a clue, didn't we? Radium and uranium. Do you think we'd ever have learned how without those elements? We'd never even have suspected that atomic energy existed!"

"Well? Haven't they—"

"No they haven't. You've told me yourself that Mars has only seventy-three per cent of Earth's density. Even a chemist can see that that means a lack of heavy metals. They didn't have a clue."

"Even so, if they were more advanced, they'd have discovered it anyway."

"Maybe," conceded Jarvis. "I'm not claiming that we don't surpass them in some ways. But in others, they're far ahead of us."

"In what, for instance?"

"Well, socially, for one thing."

"Huh? How do you mean?"

JARVIS glanced in turn at each of the three that faced him. He hesitated.

"I wonder how you chaps will take this. Naturally, everybody likes his own system best." He frowned. "Look here. On Earth we have three types of society. There's a member of each type right here. Schatz lives under a dictatorship. Leroy's a citizen of the Sixth Commune in France. Harrison and I are Americans, members of a democracy. There you are—autocracy, democracy, communism—the three types of terrestrial societies. Tweel's people have a different system."

"Different? What is it?"

"The one no Earthly nation has tried. Anarchy!"

"Anarchy!" the captain and Schatz burst out together.

"That's right."

"But—" Harrison was sputtering. "What do you mean they're ahead of us? Anarchy! Bah!"

"All right, bah!" retorted Jarvis. "I'm not saying it would work for us, or for any race of men. But it works for them."

"But anarchy!" The captain was indignant.

"Well, when you come right down to it," argued Jarvis defensively, "anarchy is the ideal form of government, if it works. Emerson said that the best government was that which governs least, and so did Wendell Phillips, and I think George Washington. And you can't have any form of government which governs less than anarchy, which is no government at all!"

"But it's unnatural," the captain was sputtering. "Even savage tribes have their chiefs. Even a pack of wolves has its leader."

"That only proves government is a primitive device, doesn't it? With a perfect race you wouldn't need it at all. Government is a confession that you need laws to restrain anti-social individuals. If there were no anti-social persons, you wouldn't need laws or police, would you?"

"But you'd need government! How about public works, wars, taxes?"

"No wars on Mars, in spite of being named after the War God. The population is too thin and too scattered. Besides, it takes the help of every single community to keep the canal system functioning. No taxes because, apparently, all individuals cooperate in building public works. No competition to cause trouble, because anybody can help himself to anything. As I said, with a perfect race, government is entirely unnecessary."

"And do you consider the Martians a perfect race?" asked the captain grimly.

"Not at all. But they've existed so much longer than man that they've evolved socially, at least, to the point where they don't need government. Queer, isn't it? On Earth it's the trial of an emotional, highly competitive race in a world of plenty. Here it's the trial of a quiet, friendly race on an inhospitable world."

"*Oui,*" confirmed the biologist. "It is true."

"But anarchy" grumbled Harrison disgustedly. "It *would* show up on a dizzy, half-dead pill like Mars!"

"IT'LL be a good many centuries before you'll have to worry about it on Earth," grinned Jarvis. He resumed his narrative.

"Well, we wandered through that sepulchral city, taking pictures of everything. And then"—Jarvis paused and shuddered—"then I took a look at that valley we'd spotted from the rocket. I don't know why. But when we tried to steer Tweel in that direction, he set up such a squawking and screeching that I thought he'd gone batty."

"If possible!" jeered Harrison.

"So we started over there without him. He kept wailing and screaming, 'No, no, no! Tick!' But that made us the more curious. He sailed over our heads and stuck on his beak, and went through a dozen other antics, but we ploughed on. Finally he gave up and trudged disconsolately along with us.

"The valley wasn't more than a mile southeast of the city. Tweel could have covered the distance in twenty jumps. But he lagged and loitered and kept pointing back at the city and wailing, 'No, no, no!' Then he'd sail up into the air and zip down on his beak directly in front of us, and we'd have to walk around him. I'd seen him do lots of crazy things before, of course. I was used to them, but it was as plain as print that he didn't want us to see that valley."

"Why?" queried Harrison.

"You asked why we came back like tramps," said Jarvis with a faint shudder. "You'll learn. We plugged along up a low rocky hill that bounded it. As we neared the top, Tweel said, 'No breet. Tick! No breet!' Well, those were the words he had used to describe the silicon monster. They were also the words he had used to tell me that the image of Fancy Long, the one that had almost lured me to the dream beast, wasn't real. I remembered that, but it meant nothing to me—then!

"Right after that, Tweel said, 'You one-one-two, he one-one-two,' and then I began to see. That was the phrase he had used to explain the dream beast, to tell me that what I thought, the creature thought—to tell me

how the thing lured its victims by their own desires. So I warned Leroy. It seemed to me that even the dream beast couldn't be dangerous if we were warned and expecting it. Well, I was wrong!

"As we reached the crest, Tweel spun his head completely around, so his feet were forward but his eyes looked backward, as if he feared to gaze into the valley. Leroy and I stared out over it, just a gray waste like this around us, with the gleam of the south polar cap far beyond its southern rim. That's what it was one second. The next, it was—Paradise!"

"What?" exclaimed the captain.

Jarvis turned to Leroy.

"Can you describe it?"

The biologist waved helpless hands.

"C'est impossible!" he whispered. *"It me rend muet!"*

"It strikes me dumb, too," muttered Jarvis. "I don't know how to tell it. I'm a chemist, not a poet. Paradise is as good a word as I can think of, and that's not at all right. It was Paradise and Hell in one!"

"Will you talk sense?" growled Harrison.

"As much of it as makes sense. How would you like to see all your dreams made real? Everything you'd ever wanted there for the taking?"

"I'd like it fine!" said the captain.

"You're welcome, then! Not only your noble desires, remember! Every good impulse, yes. But also every nasty little wish, every vicious thought, everything you'd ever desired, good or bad. The dream beasts are marvelous salesmen, but they lack the moral sense."

CHAPTER IV

The Dream Beasts

THE captain looked around him in amazement, then asked:

"The dream beasts?"

"Yes. It was a valley of them. I saw a dozen Fancy Longs, in every costume I'd ever admired on her, and some I must have imagined. I saw every beautiful woman I've ever known, and all of them pleading for my attention. I saw every lovely place I'd ever wanted to be, all packed queerly into that little valley. And I saw—other things."

He shook his head soberly. "It wasn't all exactly pretty. Lord, how much of the beast is left in us! I suppose if every man alive could have one look at that weird valley, and could see just once what nastiness is hidden in him—well, the world might gain by it. I thanked heaven afterward that Leroy—and even Tweel—saw their own pictures and not mine. I turned dizzy with a sort of ecstasy. I closed my eyes. Even with my eyes closed, I still saw the whole thing! That beautiful, evil, devilish panorama was in my mind, not my eyes. That's how those fiends work, through the mind. But I *couldn't keep away!* I knew it was death beckoning, but it was worth one moment with the vision."

"Which particular vision?" asked Harrison dryly.

Jarvis flushed. "No matter. But beside me I heard Leroy cry, 'Yvonne! Yvonne!' I knew he was trapped like myself. I fought for sanity. I kept telling myself to stop, and all the time I was rushing headlong into the snare.

"Then something tripped me. Tweel! He had come leaping from behind. As I crashed down, I saw him flash over me straight toward—toward what I'd been running to. His vicious beak was pointed right at her heart!"

"Oh," nodded the captain. *"Her* heart."

"Never mind that. When I scrambled up, that particular image was gone. Tweel was in a twist of black ropy arms, just as when I first saw him. He'd missed a vital point in the beast's anatomy, but was jabbing away desperately with his beak.

"Somehow, the spell partially lifted. I wasn't five feet from Tweel. It took a terrific struggle, but I managed to raise my revolver and put a Boland shell into the beast. Out came a spurt of horrible black corruption, drenching Tweel and me. I guess the sickening smell of it helped to destroy the illusion of that valley of beauty. Anyway, we managed to get Leroy away from the devil that had him, and the three of us staggered to the ridge and over. I had presence of mind enough to raise my camera over the crest and take a shot of the valley, but I'll bet it shows nothing but gray waste and writhing horrors. What we saw was with our minds, not our eyes."

Jarvis paused and shuddered.

"The brute half poisoned Leroy. We dragged ourselves back to the auxiliary, called you, and did what we could to treat ourselves. Leroy took a long dose of the cognac we had with us. We didn't dare try anything of Tweel's because his metabolism is so different from ours that what cured him might kill us. But the cognac seemed to work. And so, after I'd done one other thing I wanted to do, we came back here. And that's all."

"All, is it?" queried Harrison. "So you've solved all the mysteries of Mars, eh?"

"Not by a damned sight!" retorted Jarvis. "Plenty of unanswered questions are left."

"Ja!" snapped Schatz. "Der evaporation. Dot iss shtopped how?"

"In the canals? I wondered about that, too. In those thousands of miles, and against this low air-pressure, you'd think they'd lose a lot. But the answer's simple. They float a skin of oil on the water."

Schatz nodded, but Harrison cut in.

"Here's a puzzler. With only coal and oil—just combustion or electric power—where'd they get the energy to build a planet-wide canal system? Think of the job we had cutting the Panama Canal to sea level, and then answer that!"

"Easy!" grinned Jarvis. "Martian gravity and Martian air, that's the answer. Figure it out. First, the dirt they dug only weighed a third its Earth-weight. Second, a steam engine here expands against ten pounds per square inch less air pressure than on Earth. Third, they could build the engine three times as large here with no greater internal weight. And fourth, the whole planet's nearly level. Right, Schatz?"

"Ja!" the engineer nodded. "Der shteam engine, it iss twenty-seven times so effective here."

"What are you going to do with us? Not going to vaccinate us with any germs, or put some microbes in our food, are you?"

"No, men," Dr. Goldberger said seriously. "I will not do anything of the sort. But there's one thing I'd like to know . . . Have any of you ever suffered from pellagra?"

"Pellagra?" echoed the convicts "What's that?"

"It's a disease that kills you. A rash breaks out on your face, your mouth gets sore. You can't eat, you can't sleep. I hope to find a cure for this disease by our experiment."

Pellagra! The dread malady that struck mysteriously, swiftly, beginning with an innocent rash that looked like a mild sun-burn, but then turned into sores that made its victims look like lepers. Pellagra . . . it was scything down children, adults, spreading everywhere through the South like a veritable epidemic. Science was baffled by its cause. It had failed to isolate the lethal virus that caused the disease. . . .

"Naw . . . we ain't ever had pellagra," one of the convicts answered. "And as for your experiment, brother—feed us like you said and give us clean beds like you promised and let us out six months from now, win or lose. That right, governor?"

Dr. Goldberger nodded. As he left the convicts, apprehension flooded his mild, eager

Dr. Joseph Goldberger

eyes. Shouldn't he have explained the object of his experiment to the convicts? But what was the use? They couldn't understand that by giving them fine food, better than the fare afforded the regular prisoners in the penitentiary, they were jeopardizing their lives.

For Dr. Goldberger had a theory. He believed that pellagra wasn't caused by any microbe or germ. Otherwise, he reasoned, the disease would be contagious. If the word vitamin had been known in 1915, Dr. Goldberger would have said it was vitamins —or rather a lack of them—that caused pellagra. As it was, Goldberger claimed it was a mysterious X quality found in proteins—in milk and in fresh meats—that kept people immune from pellagra. Take away their proteins, this X, and all the starch in the world couldn't prevent one from falling prey to this dreaded scourge.

That was Dr. Goldberger's theory. That accounted for the fact that the victims of pellagra were mainly the poverty-stricken classes of the South, people who couldn't afford to buy fresh milk and meats.

Some 1,535 people had died of pellagra in Mississippi the year of 1915, so Goldberger had sought out the governor of the state and told him his theory.

"Give me the use of some of your convicts, out at the Rakin Prison Farm," the Jewish doctor had pleaded. "There's never been known to be any pellagra out there—and that would be the ideal place for me to try and produce it. If I can induce pellagra among the convicts by keeping fresh milk and meat off their diet, we'll know I'm right. If they get the disease, I'll feed them milk and meat and they'll get better. If nothing happens and I'm wrong . . . well, you will have done humanity a great service."

It was harder than that to convince the governor. But finally, Goldberger was supplied with his dozen volunteers.

And so the experiment began. For breakfast, the convicts were fed hot biscuits, mush with gravy, all the sugar and coffee they wanted. For lunch they had cornbread, collards, sweet potatoes, syrup and grits. For supper they had the same as breakfast.

The twelve convicts didn't complain. It was better food than they were used to getting. It was better food than many of the people throughout the South could get. All the latter got were molasses, white hogmeat, and meal. What's more, the twelve criminals knew that when the six months were up they would be free.

For fifty days nothing happened. The convicts were cheerful, went about their work with enthusiasm, made jokes about the stupidity of Dr. Goldberger and the governor in allowing them their freedom so easily. This "scientific experiment" was a laugh, they agreed.

And Dr. Goldberger? He couldn't understand it. The men seemed perfectly healthy, unaffected in the least. Not that he hoped for the ugly rash to show up—but if his theories were wrong, how in the devil could he ever achieve a cure for the thousands of pellagra victims who were slated to die yearly?

And then, one morning, it began to happen, striking suddenly like a plague. The convicts got sick . . . complained of being unable to sleep, suffering dizzy spells. Big Philip La Salle's stomach hurt him . . . he couldn't show up for breakfast. And similarly with the others. Pellagra was striking.

A month more of Dr. Goldberger's stern diet, and the twelve convicts had reaped twelve cases of pellagra for themselves.

So Dr. Goldberger had proved his theory correct! For, in the prison across the street, sleeping in dirty beds, and living off stale bread, but with some occasional fresh meat and milk, not one of the hundreds of convicts there showed the slightest sign of pellagra!

The rest is medical history. Inspired by the thrill of his success, Dr. Goldberger

worked on to discover that yeast contains the mysterious X that prevents pellagra. Simple yeast, costing only a few cents, and available to all the poor who can't afford milk and meat.

The twelve convicts? They made a beeline for the nearest hamburger stand and wolfed the stuff raw. They drank gallons of milk. And the governor of Mississippi paid the check!

MYSTERIOUS ALCHEMY

TAURO CLAUDIUS, the most expert goldsmith in all the kingdom of Syracuse, looked at the two lumps of metal before him, one gold, the other silver, and smiled a secret, crafty smile. His beady, piglike eyes, buried in mounds of flesh, glowed with greed and cunning.

Tauro's pudgy fingers fondled the lump of gold on the table before him, picked it up in one hand and weighed it speculatively. Indeed, this mass of metal was worth a fortune. It was a magic metal. For it could purchase for its owner wine, women, and fine clothes. How much more valuable it was than all the other metals—silver, for instance.

Silver—there was an awkward metal. Heavy, common, it lacked the beauty of gold, was far less precious. Yet today Tauro would perform some mysterious alchemy, and in the end the silver lump on his table would be worth its weight in gold. How? That was Tauro Claudius' secret, a secret that no one in the entire empire of Syracuse would ever share with him.

For Tauro Claudius had been commissioned to fashion the lump of gold on the table into a crown for his king—King Hieron II, of Syracuse. Tauro had been given six pounds of the gold to transfer from its ugly, formless mass into a beautifully designed, regal crown. Tauro was to be well rewarded upon the completion of his task—for his product had to be fit to lay before the king.

As Tauro began heating the fire which was to transform the six pounds of gold into a molten stream of liquid splendor, he snorted audibly. King Hieron was a fool. He would praise Claudius for the perfect job, toss him a bag or two of gold coins. And the regent would wear the six-pound crown on his head in uncomfortable glory for the rest of his court days.

But—suppose Claudius made a crown of silver, covered only with a thin coat of gold plating? The king would never suspect the deception, and Claudius could keep the change—the unused pounds of gold. Claudius chuckled to himself. His scheme was perfect. The stupid king could never guess that the crown was not solid gold throughout. And even if the king suspected, he could not prove his suspicions. For to retain them would mean sawing the crown in half—and what monarch would do a thing like that?

So Claudius whistled as he worked, pounded the anvil at his forge, and went about his royal task. Soon the counterfeit crown was finished, its superficial, golden surface bathing it with a scintillant aura. Tauro was proud of his handiwork. It was a magnificent fraud.

Time went by. Claudius delivered the spurious crown to King Hieron, received the royal blessings plus reward. The court showered honors upon Claudius. Noblemen flocked to his store, ordered rings and bracelets for themselves and their ladies. The goldsmith did a thriving business.

Then, one day, Tauro Claudius' bubble burst. A page, sent by the king, ordered him to appear before the ruler at once. As Claudius hurried along after the messenger, his heart beat a nervous tattoo. Had the king discovered his deception? Was his crime to be exposed? Claudius broke into a chilled sweat. No, he reassured himself, they had nothing on him. His plan had been foolproof. There was no way in the world of revealing the fact that the bulk of the king's crown was composed of a metal cheaper, baser than gold. The king probably wanted him to make some new bauble, perhaps a trinket for his favorite courtesan.

King Hieron threw aside the leg of mutton he had been chewing on as Claudius entered the court.

"Stand, knave," he shouted. "I should have you killed in your tracks!"

Claudius blanched. "Your majesty, I don't understand. You are jesting . . ." His voice broke off as he noticed that the king was wearing a frown instead of a crown. The crown lay at his feet, discarded, neglected.

King Hieron kicked the crown at his feet. "You thief," he roared. "'Tis not gold in this crown. 'Tis some lowly, worthless metal. What have you done with the gold I gave you?"

Tauro's beady eyes pivoted to the crown that the king had kicked away. It was still whole, uncut, untampered with. How then had the king guessed that it was a counterfeit? The king didn't know; he was only bluffing. Tauro saw hope ahead, a slim chance to save his skin.

"Your majesty," he said in oily tones, "this crown is made of solid gold, as are all the articles in my shop. Perhaps there are some minor impurities within it, the work of some bungling assistant. I shall take it back with me, melt it down again, and examine it, if it suits your pleasure. Then you will have a crown of the purest gold in all the world."

But Tauro Claudius was not to escape as simply as that.

"Hold on, wretch," the king raged. "Impurities, eh? There is not enough gold in this crown to pay a slave's wages. I know!"

"How do you know?" asked the baffled

Claudius, his face an alabaster white. He couldn't understand it. How had he been caught? What slip had he made?

For answer, the king beckoned to his left at a tall, scholarly looking man standing beside him. The king nodded at the wise looking man.

"Explain to this scoundrel how we know his crown is a fraud," the king ordered.

The tall man walked over to a table in the center of the court. He gestured to an attendant, who brought out a large tub of water. Then the tall man produced another object—a solid lump of gold.

"Watch me closely, Tauro Claudius," the tall man addressed him. "I take this lump of gold and place it within this tub of water. The water rises, you see, because it is displaced in part by the weight of the gold. It rises to this level." At that point, the tall man made a notch on the inside of the tub, indicating the height to which the water had risen.

"This lump of gold," the wise-looking man said ominously, "weighs exactly the same amount as yonder gold crown you manufactured for our king. Now I will place the crown in this tub of water."

Realization of what the tall man was driving at flooded Tauro's fogged mind. He began to see something very significant about the wise-looking man's actions as the latter reached for counterfeit crown, immersed it in the tub of water.

"See," the man went on, "this time the water reached a much higher level in the tub. If this crown had been made of gold, it would have displaced exactly the same amount of water as the golden lump I submerged before, which was equal in amount to the gold given you by his majesty. Therefore, we can only conclude that the content of this crown is mainly of some baser, more worthless element."

Tauro was speechless. He was licked. The tall man had him dead to rights.

"What made you suspect me?" he managed to stammer out at last.

The tall man smiled a wise, good-natured smile. "The king had once told me that his crown might be composed of some metal other than gold, for all he knew, but so long as no one would be able to prove otherwise, he was content. But the other day, while taking a bath, I noticed that the water rose when I got into the tub to a certain level. 'Eureka.' I cried. 'I had found it.' I had discovered a means of ascertaining the truth."

"Who are you?" Claudius asked. "What is your name?"

"My name," said the tall man softly. "You have never heard of it. I am —Archimides."

THE INDIA RUBBER MAN

CHARLES GOODYEAR was a rainbow chaser. He wanted a million dollars. And because he wanted a million dollars he wore an India rubber cap, coat, vest and shoes, with an India rubber purse that was empty!

Rubber ruled Charles Goodyear's life. It dominated his attire, its odor pervaded his laboratory, his home, crept into the nostrils of all his acquaintances. It was his greatest worry—and his fondest hope.

For Charles Goodyear was after a million-dollar pot of gold. A pot of gold that he realized he could collect if he was able to discover how rubber, the all-important industrial material, could be made heat-resistant.

For rubber, in 1830, was not like the rubber of today. It decayed quite rapidly. Warm weather softened it, and hot weather made it as sticky and gooey as melted marshmallow—quite unsuitable for use.

A rubber that would not decompose so rapidly, nor melt at ordinary temperatures —that was the quest of Charles Goodyear! That was his million-dollar rainbow. That was why he lived rubber, loved it, studied its properties under every conceivable condition.

For every one of the million dollars Goodyear wanted, he conducted a different experiment. He treated samples of rubber with scores of reagents—lime, magnesia, white lead, nitric acid, and numerous others. His wife's stove never cooked any broth—the only soup her household ever saw was of boiled rubber.

Years rolled by. Still Goodyear chased his rainbow—a rainbow that seemed to stretch further away with the elasticity of rubber itself. Still the experimenter hoped to find how to make rubber more durable. Finally, one happy day, he discovered that if the surface of rubber was coated with sulphur and exposed to the sun, the rubber became more hardy.

Charles Goodyear

Goodyear was thrilled. The government

(Concluded on page 129)

Glamour Girl—2040

By OSCAR J. FRIEND

Author of "Robot A-1," "Mind Over Matter," etc.

Tru-Depth Pictures comb the cosmos for a star—and a star is born!

TRU-DEPTH PICTURES, INC., had reached a climax and a crisis in a long career of climaxes and crises. It was casting at last for the picture, "Departure with the Whirlwind," and Harold DeBussy was searching frantically for the right glamour girl to play the role of Pinkie, the space ship captain's daughter.

On the producer's desk were stacks of mail and photographs from the very corners of the Solar System. Radiograms and spacegrams continued to pour in by the hour every day—please for a televisor test from Allura, the "it" girl of Venus; an urgent request from the Martian Council to test Xzenia, superb actress of the Red Planet; a letter from the chamber of commerce of McGillicudy, Iowa, sending the picture of Dora Dingle, beauty prize winner at the last county fair. It was enough to drive De Bussy mad.

Of course, his staff of experts combed through and checked every submission. Talent scouts were running expense accounts up into telephone numbers as they searched the five inhabited worlds of the Solar System. And still no star. DeBussy was becoming annoyed. For nearly a hundred years plans had gone forward for the making of this epic film of the spaceways. Three generations of DeBusseys had sought in vain for the right heroine to play the part, and now it looked as though the fourth inheritor of the famous DeBussy directorial crown was doomed to failure.

"But I must not fail!" declared DeBussy, running his fingers through his synthetic hair, implanted in his scalp in his fortieth year by Hirsute Electroponics. "When Great-grandfather Darrel DeBussy bought that story he did not dream that his own son would not live to produce the picture. This is almost monotonous."

"Please, Mr. DeBussy," said the soft voice of his secretary, "won't you give me just one screen test for the role?"

"No! No! No! for the hundredth time, no, Miss Montayne!" the harried producer shouted. "You're an efficient secretary and a brilliant young woman, but you simply haven't the fire, the ardor, the — the atmosphere, background, experience—the—the necessary oomph to portray that part. Please go away and leave me in my despair. No more letters or grams this morning, please."

She threw her arms around the pilot

"But you've never seen me in make-up," Marcia protested indignantly. "You've never seen me act. You won't even give me a chance."

"No—no—and no again! Good-by please. I wish to be alone."

He flung himself from his desk to the intricate instrument panel and televisor screen which took up one entire wall. As his hobby, the great DeBussy had turned to interspatial

communication, strictly amateur, of course. He was known as the biggest ham in the ether. He flipped a couple of switches and started twisting dials as the girl frowned wistfully at his back. Then Miss Montayne withdrew from the luxurious office just as a blare of wild Venusian music came from the telemikes behind the crystal screen. She closed the door and spread her hands helplessly as she glanced at the handsome young man who stood in the outer office.

THIS chap, Sam Dozment, first assistant electrician for Tru-Depth, smiled at the girl and made his way out of the office. Marcia sat at her desk and began answering telescreen summons, opening mail, and making appointments for her employer.

Back in his office, DeBussy was fretfully shifting his detector beam from one part of the Solar System to another, idly searching out crowds on Jupiter, a gathering on Mars, a wine shop in the steaming jungle town of Neopaline on Venus—and focusing the close-up ray on any female figure that even excited a flicker of interest. But all in vain.

Then something clicked in the battery of rheostats, the very crystal of the screen quivered, and in the midst of a scene of a desert orator haranguing a crowd of prospectors in a mining camp on Ganymede, another scene was imposed. It was a scene of a space port somewhere—it looked like the the terrain of the Moon. A split detector torque. That happened sometimes, but rarely.

DeBussy was reaching for the disconnecting switch when he became interested in the super-imposed scene. There, right in the middle of the mining camp, fragments of which could be seen all around the central picture, was an attack on a space ship. Wild-looking creatures were storming the open port of the vessel, ray guns and cudgels and rocks in hand. It was a ravening mob, and it looked like the finish of the gallant crew of three who battled to protect the ship. DeBussy wondered where it was and whether he would view the subsequent news projection on his tomorrow morning's micro-film newspaper.

At this instant, a vivid, vibrant figure of a girl leaped out of the struggling mass and sprang to the side of the hard-pressed space pilots, threw her arms around one of them.

"Back, ye scum of Morgrulac!" came her ringing voice. "Can ye not see that these men have come with the star of emerlos to save you from the ravages of the creeping plague? Would ye destroy the very men who bring ye hope?"

There was more, but DeBussy paid little attention to the words which, oddly enough, he could hear above the roaring discord of two separate scenes. He was charmed, enthralled by the girl's voice. Even as he reached forth hesitantly to attempt adjustment which would focus a close-up, the scene swept rapidly toward him, and the form and features of the girl filled the entire split section of the crystal. Her flowing dark hair, her lambent and flashing dark eyes, the play of passion and emotion on her lovely mobile features fascinated the producer.

He could not tear his eyes away. He didn't even hear the office door behind him as it opened. Marcia Montayne came softly into the room.

"Please, Mr. DeBussy, all I ask is a single chance to show you what I can do. If you will only—"

"Shut up!" roared Mr. DeBussy, never looking around at his secretary. "I've found the woman to play the part of Pinkie! Great God! But where is she? How can I find her? Don't talk. Look, if you want to see a marvelous actress! Send for Dozment—quick! I want him to check this screen and locate that girl. Hurry, can't you?"

"I'M here, Mr. DeBussy," answered the cool voice of the electritician. "So you like the lady on the televisor before you?"

"Like her? I've got to have her. Tru-Depth has been looking for her for a hundred years! For heaven's sake, man, find out what happened to my detector beam and—say! How the devil do you happen to be in here?"

"If you'll tear your attention away from that screen for a moment I'll explain," answered Dozment, coming forward from behind Marcia Montayne.

"No!" shouted DeBussy without looking around. "Look at this wondrous creature. My God, she may be killed by those beasts! Where in the cosmos can she be?"

"Glad you like it," said Dozment in a dry voice. "That's a three-dimensional Tru-Depth projection I made last month on my honeymoon vacation at our old 'Blood of Space' set on the Moon. I just rewired part of your televisor set last night so it would look like a split detector torque. That's a motion picture of my wife you are viewing—not an actual happening somewhere in the Solar System."

"You—huh? What! Your Wife? So you chose this method of presenting your wife to me? Why the deuce didn't you simply bring her in and introduce her to me, you dog? I can spot talent like that anywhere. Where is she now? Send for her at once. Miss Montayne, get Mrs. Dozment on the telescreen."

"That wouldn't work, Mr. DeBussy," said the electrician. "Allow me to present my wife—known to you only as the oomphless Miss Montayne."

DeBussy gaped at the figure of his own secretary. Marcia had turned open the throat of her pastel uniform. Her glasses had disappeared, and her dark brown hair was flowing about her face in wild disorder. Undoubtedly she was the original of the girl depicted on the crystal screen behind him. As he stared and gurgled, Marcia cried as the girl on the screen had cried:

"Would ye destroy the very men who bring ye hope?"

DeBussy let out a yelp of ecstasy, grabbed his hair in frenzy — and fainted.

"Too much for the old boy," commented Dozment. "But I guess you get the job now, honey."

"Yes, I think so," said Marcia. "Call Hirsute Electroponics for me like a dear, Sam. Mr. DeBussy has pulled out all his hair and needs a replanting job."

The New Frontier

A Guest Editorial

By DR. MILES J. BREUER

Famous Scientifiction Author

IT has always been the adolescents of the race who have lived on adventure. Adventure has always involved pushing out from the known and familiar into the new and unknown. The adult of the race has usually been satisfied with the established order.

When the human race was confined to small areas of the earth's surface, almost every individual was surrounded by adventure. It was a perfect setting for youth. A stone's throw away was darkness and fighting, and new lands. As people spread and congested upon the earth, those crowded into the middle of the group did not have opportunities for adventure as did those on the edges. Thus an ever decreasing proportion of young people were able to get out into new frontiers. More and more were forced to stay at home and live the life of the old people.

Therefore, tales and stories of adventure took the place of real adventure. The creative art of story-telling dates back into the dimmest dawn of human beginnings. Savage youngsters sitting around a fire and listening to the experienced story-teller, are our original prototype of the science fiction magazine.

Homer's Illiad and Odessey are good science fiction. Those things probably never really happened. They were invented to appease the restlessness of those who wished adventure and could not reach it.

We are denied knowledge of the inspiration for adventure which must have existed in Europe from the 15th to 17th century, with the Americas open to those who wanted a taste of glory. It must have been a grand science fiction period.

We do have real knowledge of the "go West" period of American history lasting two hundred years. In those days there was not merely action; there were stories, and what stories! They are still famous and always will be.

Dr. Miles J. Breuer

At the present time geographical frontiers have been exhausted. It seems that new fields for adventure are closed to adolescents in that respect. With the exception of small areas at both Poles, there are practically no new lands to conquer.

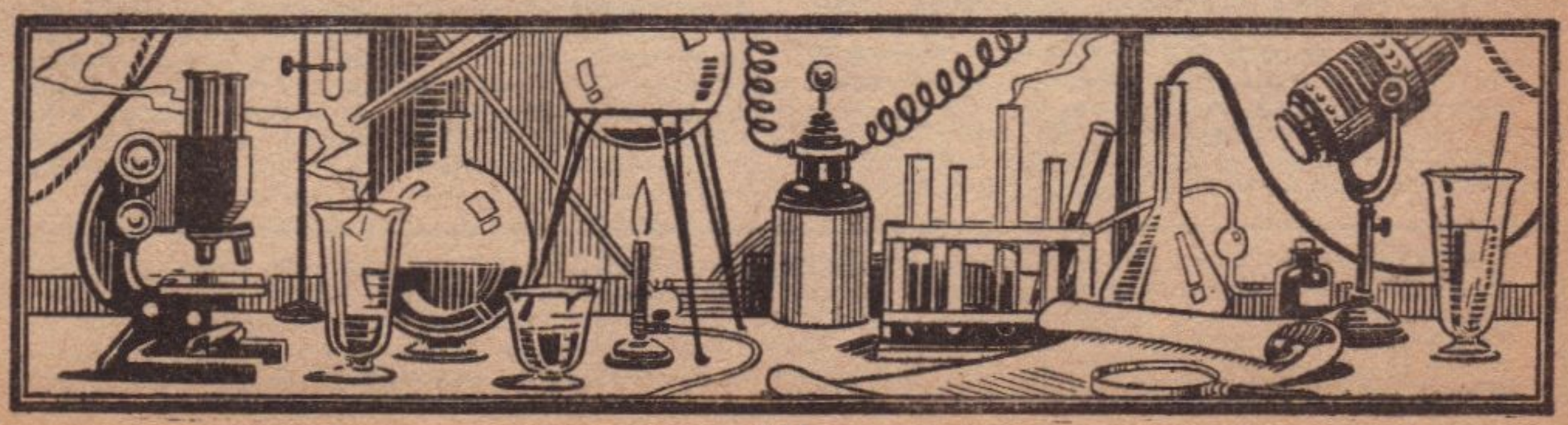
As usual the story teller is ahead of actual life. Nearly one hundred years ago Jules Verne took us exploring into the Arctic, under the sea in submarines, and flying in the air. He slyly skipped technicalities. He knew that clever engineers would work them out later.

So, today the frontier is the stratosphere, the Moon, the Milky Way. Technicalities do not matter. Are not the adults working them out? Youth is waiting for their elders to build the ships and forge the guns. In the meanwhile, we can tell stories about it.

Even the prosaic oceans that border our continent offer a new frontier. Man has not yet probed their incredible depths, prospected the lands that lie submerged.

Jules Verne skimmed the surface of this vista in his visionary works; it remains for the pioneers of tomorrow to go deeper, unveil the secrets of the submarine regions.

Nowadays we cannot all sit about the fire and listen to an expert tell a story. There are too many millions of us. The age is not addicted to blank verse, but the modern science fiction magazines serve the same function as did all the mythological variations down the ages. It is still the inspiration of adolescents to adventure and progress. That is how the human race has always gotten ahead and always will.



SCIENCE Question BOX

PERPETUAL MOTION

Editor, SCIENCE QUESTION BOX:

Recently, you ran an article on perpetual motion. Why is it that they say perpetual motion is impossible, according to your statements? Is not the Earth turning on its axis a case of perpetual motion? And, since the moon causes tides, which furnish power through tide motors, and the moon's motion is perpetual, why is not a tide motor a perpetual-motion machine?—J. W., Bangor, Maine.

In the terms of one human life, and perhaps of the life of the human race, the Earth-moon system might be called a perpetual-motion-machine. But even the Earth-moon system is running down, with the exertion of energy in the tides. The rotational energy of the Earth is in the order of twelve billion billion horsepower years, according to an estimate; it is losing, by tidal friction, a billion and a half horsepower steadily at the current rate. Perhaps, if sufficient tide-motors could be put on it ,in places like Bering Sea, the loss could be increased by utilization as power.

However, the true perpetual-motion machine is one which **creates** power—at least enough to overcome its own friction. A sun-power motor might run, with repairs and renewals, as long as the sun continues to shine—and the sun, barring accidents, should last a trillion years., But it would not be a perpetual-motion machine—any more than a steam engine, or an electric motor, which also derives power from an outside source.—Ed.

THE EARTH'S ROTATION

Editor, SCIENCE QUESTION BOX:

In a recent issue of STARTLING STORIES I read a story by Alexander Samalman, "The Lost Hour." It was a good story, but I would like to know whether its scientific basis was accurate. Do changes occur in the Earth's rate of rotation?—E. H., Boonton, N. J.

"The Lost Hour" certainly was based upon fact! Checking movements of the sun against movements of the Earth for the last 150 years, the late Professor E. W. Brown of Yale University found there is little reason to doubt that real changes in the Earth's rate of rotation do occur. His suggestion for the cause of such changes is that in the Earth there is a layer, near the surface, which has the ability to undergo relatively great volume changes for small temperature changes. Thus a small change in the Earth's internal condition might make a sizeable volume change in the Earth. A change of only 5 inches in the Earth's radius could produce a one-second difference in the length of the Earth's year, Prof. Brown observed.

A test of this hypothesis could be made by studying bulges in the Earth, and the most likely place to look for them would be in regions in which mountains are still rising. So, with suitable equipment placed in these regions, scientists may some day learn the secret of strange variation in the Earth's speed of rotation.—Ed.

NO CHEMICAL MYSTERIES

Editor, SCIENCE QUESTION BOX:

Are there any substances which, when mixed with a chemical compound, will prevent its analysis? I have heard that manufacturers of some preparations use chemicals called "stops" to perplex anyone attempting analysis, and so to keep their formulas secret.—A. K., New York City, N. Y.

As regards the elements of a chemical compound, it is impossible to prevent their detection by a mixture; though, in the case of a number of rare elements, the difficulty may be increased. The spectroscope, it is claimed, will separate any elements from even their isotopes.

As regards an organic compound, where it is desirable to note the different compounds of carbon, oxygen, hydrogen, nitrogen, sulphur, etc., an analysis may be difficult; because it is desired to preserve the substances unchanged, and they can be separated only by solution and evaporation. This is a long and tedious process.

Almost any vegetable or animal substance of a complicated nature would make it additionally difficult for a chemist to give an exact determination of the formulas actually used in a medicine or cosmetic; but he would easily be able to report: "There is such a percentage of oil, such a percentage of starch, etc." and give a formula which, if not identical, would effect a very similar result. Any important mineral ingredient would be easily recognized. —Ed.

In this department the editors of STARTLING STORIES will endeavor to answer your questions on modern scientific facts. Please do not submit more than three questions in your letter. As many questions as possible will be answered here, but the editors cannot undertake any personal correspondence. Naturally, questions of general interest will be given the preference. Address your questions to SCIENCE QUESTION BOX, STARTLING STORIES, 22 West 48th Street, New York City.

NEMESIS FROM LILLIPUT

By RAYMOND Z. GALLUN

Author of "Saturn's Ringmaster," "Red Shards on Ceres," etc.

"Break it all, or I'll shoot!" Ruthie cried

Countless living worlds hang in the balance when an unearthly menace reaches from beyond the atom!

DANE THORNE had felt the hot congealed lava of a volcano trembling beneath his feet. He had looked, from the thick windows of a bathysphere, at the grotesque horrors that swarmed in the black deeps of the Pacific. He had viewed the bright stars of space from a rocket that probed above the stratosphere. But never before in his adventurous life had he been so disturbingly awed and scared as he was now.

The low, flat jardinière, which stood on a table beside his piano, contained a miniature landscape quaintly modeled by some Japanese master of a dainty art. There were hills there. There was even a tiny lake containing real water, supplied daily by Ruth, Thorne's child.

There were bridges, toy temples, and live trees, artificially distorted into bizarre yet pleasing shapes, after the fashion of the ornamental trees of Nippon.

So the dwarf landscape had always been, since Thorne had bought it for Ruth a month ago. But now—almost in an instant—a fresh and un-Earthly element had been added, appearing magically from nowhere!

At the edge of the little lake, a minute, spirelike cone, an inch high, had suddenly come into being. Thorne had been playing the piano. Absently, his gaze had been directed straight toward the jardinière at the moment of the miracle. He had seen what looked like a puff of smoke rise out of the soil of the miniature garden. The smoke had seemed to shape itself, forming the cone.

Thorne's music had broken off abruptly. Now, his pulses pounding, he had jumped to his feet. He bent over to examine the phenomenon more closely. Saw that the cone was far too tenuous in composition to be called solid; yet, in spite of its pearly, vaporous texture, it was capable of retaining a fixed shape. Its diaphanous surface was dotted with what might have been ornamental bosses. Around it there clung a scarcely visible hint of a luminous aura, giving it, somehow, a blood-chilling aspect of nameless malignance. Thorne scrutinized it intently for several moments.

NOW with the same instinctive hesitation that one might feel at the prospect of touching a live snake, he moved his fingers toward the cone, his intention being to examine it tactually as well as visually.

The gesture, however, was stopped before it was half completed. There was a patter of footsteps behind Thorne, then a shrill protest:

"Daddy! Don't! You'll break it!"

Thorne turned about, and what he beheld left him speechless. The past minute had brought him in contact with the unknown; yet this first shock was nothing compared to the mixture of wild feelings which the tableau now befor him poured into his mind.

Ruth, his seven-year-old daughter, stood stiffly at the center of the floor. Her plump little arms were extended out before her, drawing the sleeves of her dress in tight creases about her shoulders. There were big tears on her cheeks. In her chubby fists she held, clumsily but very dangerously, an ugly automatic pistol, its muzzle pointed straight at Dane Thorne's breast!

The pistol was his, of course. Thorne knew that it was fully loaded, and he could see that the safety was not locked. Ruth had evidently contrived to remove the weapon from a trunk in his bedroom.

Thorne did not pause to consider the causes of his daughter's behavior; he could only concern himself now with the immediate problem of getting the situation in hand. Children, however, were not exactly in his line. His adventurous means of livelihood had taken him far afield, and he had never been with the motherless child that he loved for more than a month or two at a time.

Thorne frowned and grinned, trying to simulate annoyed tolerance.

"Please, Ruthie," he said. "You know that's not nice. If you were with Aunt Rose now, she'd be very severe with you."

Ruth grimaced, petulant and tearful.

"Don't touch the little new thing in my garden!" she ordered. "And do just what I tell you, 'cause if you don't I'll shoot you, Daddy! I'll shoot you dead!"

"Why—kiddo!" Thorne burst out. And then he stopped. This was no mere infantile vagary. This was—Thorne could scarcely hazard a guess.

In Ruth's eyes, still wet with tears, caused, perhaps, by a transient fright during the moment when some alien compulsion had evidently gripped her, there was a glassy glitter, like that of the fixed stare of catalepsy. He arms, soft and dimpled, seemed to stiffen, bringing the pistol into a more menacing alignment, and leaving no doubt that a purpose, cold and certain and unyielding, guided the little girl's every word and act.

Strong, resourceful fellow though he was, Dane Thorne realized that if he made one suspicious move—even the

slightest—his life was forfeit. This in itself would not have strangled his daring, should a favorable opportunity appear. But it was the thought that if he were killed she would be left alone in the grip of something hidden and incomprehensible that prompted him to caution.

"Dad's your friend, kiddo," he said, still smiling. "What do you want me to do?"

"Take me to where the doctor lives," Ruth ordered.

"You mean Doctor Orbis in the next apartment?" Thorne questioned.

"Yes," the little girl answered.

Thorne frowned thoughtfully. Orbis was a reclusive experimenter. In what way could he be involved in this fantastic sequence of weird events?

"The doctor won't let us in, kiddo," Dane protested. "He doesn't like people, and he always keeps his apartment locked."

"Then we'll have to make him let us in!" Ruth, or whatever it was that had dominated Ruth, shrilled. "Lead the way! Quick, Daddy, or I'll shoot you dead!"

THORNE made no more protests, for he knew, with a puckering thrill of dread, that the threat was not an idle one. He turned about and walked past the table which supported the miniature Japanese garden and its tiny visitant enigma, and proceeded on toward the exit of his quarters.

Keenly he reviewed his limited knowledge of Orbis. Often Thorne had heard subdued buzzes and faint mechanical throbbings in the rooms occupied by his queer, wizened neighbor. He had noticed, too, that he could not keep photographic film here for more than a few days. Always it spoiled.

Ruth's glassy gaze missed no slight detail of her father's movements as he approached the exit door. The pistol held stiffly in her hands remained pointed at his vitals with the inescapable certainty of Fate.

He opened the door and strode out into the hall, followed closely by his little captor. There was no one in sight, and he was aware that to make any outcry would be fatal.

It was only a few steps to the entrance of Apartment 9, occupied by Doctor Orbis.

"Ring the bell, Daddy," Ruth ordered in a loud whisper.

Dane Thorne obeyed, wondering helplessly what further bizarre confusions would take place during the next several moments. His first unwilling attempt to announce his presence to Orbis produced no response, and so he tried again. By straining his ears he could detect a dim and sleepy humming which originated from within the old scientist's lair.

Now there were light, unsteady footfalls. Orbis was approaching. Painfully conscious of the muzzle of the automatic held close to his back, Thorne waited.

A key rattled in the lock. The door opened a few inches, and a pair of bespectacled eyes, set in a small, pallid, mouselike face, peered out with a questioning squint of annoyance.

Dane Thorne would have found difficulty in explaining the nature of his visit to Orbis; but the need for such an explanation was taken from him before a fumbling "er-ah" was well past his lips.

Ruth did not hesitate.

"Let us in, Mister Doctor," she said. "Let us in or I'll shoot you!"

Still betraying signs of annoyance, Orbis looked down toward the source of the commanding words. His myopic vision seemed to have difficulty in locating Ruth, half hidden behind the big body of her father. When he saw her at last, and saw the amazing and deadly incongruity of the blued automatic clutched in her rose-petal fingers, his surprise was almost pitiful for one to behold.

Orbis' jaw dropped as he gulped air raspingly into his lungs. His eyes bulged behind his spectacles, and his pallid, sunken cheeks seemed to wither and collapse further, like snow visibly melting. Theodore Orbis was a scientist, and while one who dares to unmask the mighty mysteries of Nature cannot lack a specialized courage, the courage he needed now was not of the kind that had been built into his system. Facing firearms was one situa-

tion for which he was not emotionally prepared.

"I think you'd better do what my daughter says, and grant us your hospitality, Doctor," Thorne advised, controlling his voice carefully. "You can understand, I believe, that all three of us are faced by something rather odd and incomprehensible, yet nevertheless important."

The old experimenter didn't answer at once; he only pulled the door open weakly, and retreated backward into his quarters. Dane followed, and Ruth, still the small but guiding Nemesis, brought up the rear, kicking the door shut behind her.

"What—what do you want?" Orbis stammered at the two intruders.

DANE THORNE felt an impulse to attempt a presentation of his experiences of the last several minutes. But he suppressed it, glancing instead toward Ruth, for in her, he knew, must rest the core of the fantastic and devilish enigma.

"Doctor," she declared unemotionally, surveying the intricate and expensive apparatus in the room, "we have to break all the stuff you've got here."

The thoughts which her words aroused in the minds of her audience of two must have been many and conflicting. Theodore Orbis was still badly frightened; yet he must have wondered now whether he should take a statement of such weight seriously, coming as it did from a dainty little girl who should be cuddling dolls instead of supervising criminally destructive acts from behind the maw of a deadly weapon.

"Please, little lady," he stammered. "You can't mean what you say! Why, I—I've been working on the problem of unleashing atomic energy! And I'm beginning to succeed! I've spent thousands of dollars on this equipment! Almost every penny I own! Think of what it will mean to science and to civilization when—when— But of course you can't understand what I'm talking about. You're—you're only a baby!"

Regardless of her status socially, chronologically, and mentally, however, Ruth Thorne was possessed of a purpose that was clear, obstinate, and unalterable. On a low shelf close beside her were many bottles and jars containing chemicals. With a movement as quick as a cat's, she reached

(Continued on page 122)

THE world of tomorrow holds many marvels. Trans-Atlantic tunnels, three-dimensional television, and rocket travel. But by far the greatest wonder is—Strato-prison!

Strato-prison—the super-bastille of 2,000 A. D. A huge, pitiless globe of metal, suspended fifty miles above Earth's surface, it is half a mile in diameter, upheld by a zero-gravity field.

Life imprisonment in Strato-prison, the Alcatraz of the future, means isolation from Earth, as fully and finally as though one were marooned in the next universe. And that is the fate meted out to young Richard Hale, pioneer inventor.

Five men lusting for power had unjustly doomed young Richard Hale to life internment in Strato-prison. Only one man had ever escaped from this asteroidlike prison. Richard Hale determined to be the second—to return to Earth and exact vengeance from the Five who had condemned him to a life of disgrace and solitude.

Richard Hale's vengeance is an extraordinary one. He marshals the forces of superscience and doles out five varieties of scientific doom. There are thrills in abundance awaiting you as Richard Hale summons the powers of the future and directs them at the Syndicate of Five!

The story of Richard Hale and his quest for vengeance is related by popular author EANDO BINDER in "FIVE STEPS TO TOMORROW," a complete book-length novel scheduled for the next issue of STARTLING STORIES. "FIVE STEPS TO TOMORROW" is a five-star achievement by one of fantasy's leading authors. Look forward to it!

Other distinctive stories by star writers in the July issue of STARTLING STORIES. The nomination for the HALL OF FAME—by popular command—is "THE CITY OF THE LIVING DEAD," by those old favorites, Laurence Manning and Fletcher Pratt.

All our regular scientifictional features in the next number. P. Schuyler Miller does the guest editorial, "Counterfeiting a Golden Age." Jack Binder portrays the life of Luther Burbank, master of plant-life, in his popular feature, "THEY CHANGED THE WORLD." And you'll learn the amazing story of Otto Gericke in "THRILLS IN SCIENCE," among others. Also, another SCIENTIFIC CROSSWORD PUZZLE in the next issue. Ace fiction, features and fact in the magazine that leads the field!

Our Companion Magazines

The greatest masters of scientifiction are represented in each issue of THRILLING WONDER STORIES with a long, complete novel, published in a special scientifiction novel section. The May THRILLING WONDER STORIES features a Hollywood-on-the-Moon collaboration, "THE SEVEN SLEEPERS," by Arthur K. Barnes and Henry Kutter. If you've been following the cinematic adventures of Gerry Carlyle and Tony Quade team, then you won't want to miss "THE SEVEN SLEEPERS"—a super-special. More than twenty stories, features, and articles in the latest issue!

Captain Future

Calling all Edmond Hamilton fans! The second issue of CAPTAIN FUTURE, devoted to the adventures of the Wizard of Science, and featuring "CALLING CAPTAIN FUTURE," is now on display at all newsstands. If you want to make the acquaintance of the Solar System's most glamorous character, Captain Future, order your copy right now! And write in and tell us what you think of the Futuremen!

THE ETHER VIBRATES—with the letters sent in by loyal followers of science fiction. Add your voice! This department is a public forum devoted to your opinions, suggestions and comments — and we're anxious to hear from you. Remember, this is YOUR magazine and is planned to fulfill all your requirements. Let us know which stories and departments you like — and which fail to click with you. A knock's as welcome as a boost—speak right up and we'll print as many of your letters as possible. We cannot undertake to enter into private correspondence. Address THE ETHER VIBRATES, STARTLING STORIES, 22 West 48th St., New York, N. Y.

LETTERS FROM READERS

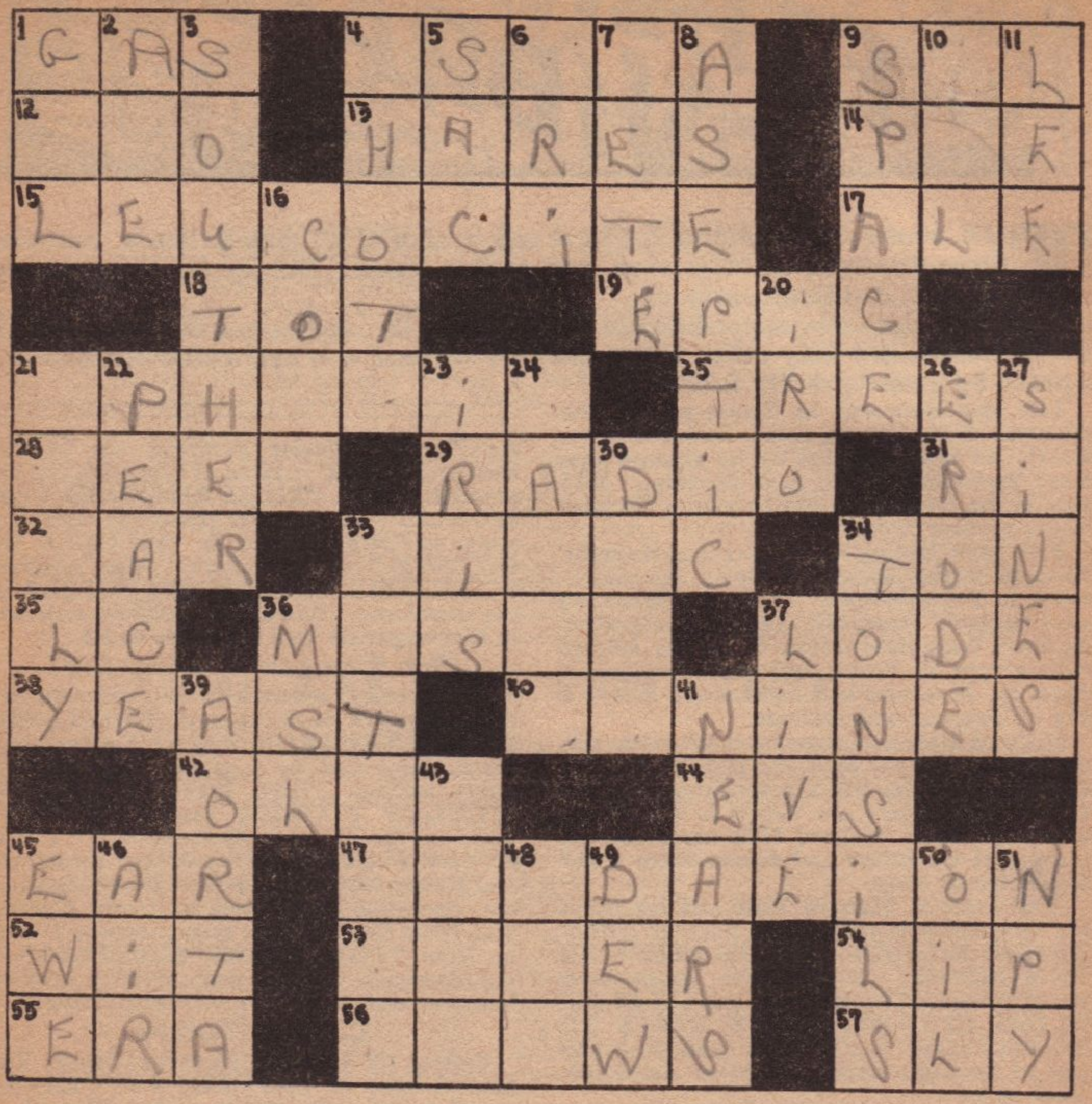
PAUL COMING SOON!

By Dom Passante

The March, 1940 issue of STARTLING STORIES is on hand, and it's really a dish fit for a king! Henry Kuttner's novel, WHEN NEW YORK VANISHED, aside from turning out to be another star hit in your parade of outstanding book-length classics, proves that the lad is okay at serious fiction. Previously, I had identified Kuttner mainly with his amusing "Hollywood-on-the-Moon" series. I thought he was swell at light, fantasy fiction.

(Continued on Page 120)

SCIENTIFIC CROSSWORD PUZZLE



HORIZONTAL

1. Matter in the aeriform state.
4. Skin affliction (medical).
9. Mixture of liquid and colloid which remains in a fluid state.
12. Subject of each conscious act or state.
13. Rodents with long ears, large hind legs and small front legs.
14. Magpie or related bird.
15. White blood corpuscle.
17. Beverage.
18. Little child.
19. Narrative poem.
21. Bone situated at the base of the skull, behind the root of the nose.
25. Perennial woody plants.
28. Amount of surface included within a bounding line.
29. Receiving set for anything transmitted by the energy of sound waves without the agency of wires.
31. Rhode Island (abbr.).
32. Karel Capek's famous robot play.
33. Assume the form or color of, as for protection.
34. 2,000 pounds.
35. Lower Canada (abbr.).
36. Plant requiring medium conditions of moisture and dryness.
37. Metal-bearing vein.
38. Substance used to induce fermentation.
40. Liquid hydrocarbons of the paraffin series.
42. Combining form for oil.
44. S-shaped worm.
45. Organ of hearing.
47. Any changes in an element or compound that result in an addition to it of a negative radical.
52. Act of knowing or perceiving mentally.
53. Graft on a parent-stem.
54. One of the two muscular organs that bound the mouth in front and cover the teeth.
55. Period of time.
56. Small mergansers.
57. Playfully clever.

VERTICAL

1. Protoplasm comprising gelatin or albumen in a jelly-like state.
2. Improve the conductivity of a wire by sending intermittently through it for a considerable time a small, interrupted current.
3. Wind from the south.
4. Combining form for light.
5. Membranous pouch.
6. Containing ore.

7. Network arrangement, as of vessels or nerves.
8. Exempt from blood-poisoning.
9. Distance between points or objects.
10. Liquid, insoluble in water, sometimes soluble in alcohol, and always soluble in ether.
11. Direction opposite to that from which the wind comes.
16. Nebulosity surrounding the nucleus of a comet.
20. Internal Revenue Officer (abbr.).
21. Near the beginning of any stated period of time.
22. Armistice.
23. Pigmented structure in front of the lens of the eye.
24. Small hyracoidean hoofed mammal.
26. Reduce the land surface toward sea level by the various agencies of weathering, wind action, etc.
27. Trigonometrical term (pl.).
30. Founder and Queen of Carthage.
33. Shooting stars.
34. Lymphoid organs situated on either side of passage from the mouth to the pharynx.
36. Mean sea level (abbr.).
37. Remain in existence.
39. Largest blood vessel of the arterial blood system.
41. Approaches.
43. One of a series of compounds containing the group CNOH.
45. Female sheep.
46. Atmosphere of the Earth.
48. Cyprinoid fish.
49. Moisture condensed from the atmosphere.
50. Petroleum.
51. North Polar Ytterbium (abbr.).

The Solution Is on Page 129—If You MUST look!

THE ETHER VIBRATES

(Continued from Page 117)

WHEN NEW YORK VANISHED, though, presents Kuttner in a different vein—and I'm looking forward to another novel by him soon.

Alex Schomburg's intriguing double-spread illustration for this novel, with its futuristic lettering, deserves some comment here. I like your policy of alternating the various scientifiction artists. You've given us Wesso, Binder, Finlay and Schomburg. How about Paul?

THRILLS IN SCIENCE offers a diverting trio of scientific anecdotes, as usual. Keep this department going, by all means.

There are about half a dozen excellent features about STARTLING STORIES. The HALL OF FAME always gives me the impression that I'm getting something extra. The crossword puzzle is a good pastimer. And the newsy reviews of the various s-f fan publications sure hits the spot.

So continue to lead the s-f front, STARTLING STORIES. If you don't continue to keep up the present fine level, I'll be startled. —North Bergen, N. J.

FLASH!

By Bob Studley

Just finished reading the latest issue of STARTLING STORIES. "When New York Vanished" was the best you've had since "The Bridge to Earth."—519 West 134th Street, New York City, N. Y.

COVER FROM NOVEL THIS ISSUE!

By Harry Nowakowski

Ever since I started reading STARTLING STORIES about a year ago, I always wanted to congratulate the editors for publishing such a wonderful magazine, so I'm taking this opportunity to express my gratitude by writing you this letter. First, hats off to you publishers for featuring a complete book-length novel in every issue of S.S. That's what we S-F fans have been waiting for for a long time. Then take your departments. They're perfection A-1. I especially enjoy reading THRILLS IN SCIENCE and SCIENCE QUESTION BOX. The short stories, particularly Scientifiction's Hall of Fame, are the tops in reading entertainment.

I have just completed reading the January, 1940 issue of STARTLING STORIES. "The Three Planeteers," by Edmond Hamilton, was the best scientifiction novel I have ever read. He really unfolded a wonderful and great fantasy tale in this story. More power to him in the future!

I find one thing wrong about S.S. and that is: I don't think that the cover painting should be illustrated from a short story. I'm sure that many other readers agree with me on this point. Well, here's hoping STARTLING STORIES reach a ripe old age.—5556 Dubois Street, Detroit, Mich.

TRY CAPTAIN FUTURE!

By Wallace Riley

I am writing to tell you of my approval of your novel, "The Three Planeteers." I have read quite a few scientifiction magazines, with fair stories in all, but this story is one of the best yet.

You cannot call me a "scientifiction veteran," because I am only twelve. I began reading your magazine in September, when my big brother began reading it. I also highly approve of the book-length novel in one earlier issue, "The Fortress of Utopia," by Jack Williamson.

I do not like stories of blood and thunder, or of crime in scientifiction. When I started to read "The Three Planeteers," I thought it was one of the latter variety. But the title didn't sound like that, so I read on a bit. Then I found that John Thorn, Sual Av and Gunner Welk were merely posing, and doing a great service to the whole Solar System. A completely radio-active planet as described in Hamilton's novel, is a good trick for a story, too.—Box 107, Atlanta, Texas.

REQUESTS
By D. B. Thompson

Congratulations! "The Three Planeteers" is another good long story. I've read five issues of S.S. now and have yet to find a poor feature novel. I rate the stories in order, as follows:

1. "The Fortress of Utopia."
2. "The Prisoner of Mars."
3. "The Bridge to Earth."
4. "The Black Flame."
5. "The Three Planeteers."

I place "The Three Planeteers" last because of the emphasis on adventure; nevertheless, it is a very good adventure story. My personal preference is for a little heavier type of story; hence the first place ranking given to "The Fortress of Utopia."

So far, S.S. has contained stories of sufficient diversity to satisfy almost any reader, without any serious drop in quality. Incidentally, I think "The Three Planeteers" is considerably better than the first "Captain Future" story.

I'm sorry the omission of the crossword puzzle and other similar features is only temporary. I would be glad to see them omitted regularly, Miss (or Mrs.?) Beasley notwithstanding.

How about a feature novel by some of the following: A. E. van Vogt, Harl Vincent, Lester del Ray, C. L. Moore, Amelia R. Long, Laurence Manning, William Grey Beyer, Ward Hawkins, Robert Moore Williams, or Frank Kelknap Long, Jr.? I might name many more, but that will do for a starter.

Henry Kuttner's forthcoming novel should provide another good story on a topic and in a style differing from any of its predecessors in S.S.

Here's hoping for continued growth.—3136 "Q" Street, Lincoln, Nebr.

BUT FUTURE'S FUTURE IS O.K.!
By Allan Keniston, Jr.

Though fully aware that this missive may never be seen in print, I feel it necessary to offer my comments upon certain of your recent "events." I read with utmost interest the story of the "Three Planeteers," Ed Hamilton's contribution to your January issue, and I wish to state here that it was one of the best interplanetary stories in a long time. It was the high quality of this saga of the men of the spaceways that led me to write this letter, not in comment upon the Planeteers, but upon your new companion magazine, "Captain Future."

Since this magazine, I fear, will not last the length of its perfectly grand serial—a cosmic shame, as someone said—I address this to STARTLING STORIES. When Hamilton can write such really good material as in this January issue, why in all Space does he stoop to becoming the inventor of a character heretofore found only in the comic strips? Robots, androids and supermen . . . I wonder if Mr. Hamilton reads Harpers' Magazine.

In the September issue there is an article calling every man's attention to the material of doom and impossibility pictured in science fiction.

It is stories of the type exemplified by Captain Future that cause just such violent debunking of a truly fine type of literature, fine only when written by one capable of deep thought or even of coherent and clear reasoning.

No man can hope to compare the amateurish attempts of some of the present-day writers with such masterpieces as those of Weinbaum, Williamson, or Dr. Smith, a fact which any fan will vehemently support.

Thus, my sentiments. If this letter be published, I shall at least know you are not blind to criticism.

In regard to STARTLING STORIES, keep up the good work. You have few faults, but I feel the foregoing criticism to be necessary, ere you are misled. I also feel that others will agree heartily with me—many others.

My best wishes for your continued success, but as a publisher of true scientifiction.—Vineyard Haven, Mass.

NEMESIS FROM LILLIPUT

(Continued from page 116)

out, and, still holding the pistol with one hand, seized a small, heavy bottle of acid, and flung it accurately.

With a clatter and a tinkle it struck a fragile arrangement of wires, bulbs, and glass pipettes. Shattered vitreous fragments flew this way and that, glinting in the afternoon sunshine which streamed in through the windows of the cluttered room. The sleepy hum of a compressor was throttled.

High - voltage sparks hissed and crackled from the broken ends of thin silver strands. The ominous blue fire which had burned steadily in a great, quartz globe fitted with complicated tungsten electrodes died out slowly, and the white-hot contents of a crucible, supported at the exact center of the globe by a metal rod, ceased to seethe.

Orbis uttered a choking cry, as if the ruination he beheld brought him actual, physical anguish. "Don't, little girl!" he begged. "Please don't!"

Ruth was implacable, however. Her fingers tightened around the butt of the automatic, leaving no doubt of her deadly seriousness. "Break everything to pieces!" she commanded. "Quick!"

Voiceless, the doctor moved to comply. Menaced as he was, there seemed no other course for him to follow.

"You too, Daddy!" Ruth shrilled.

Thorne made a determined demur.

"No!" he stated. *"Whoever you are, or whatever you are, I have my limits!"*

But his defiance of the hidden intelligence that had assumed cold mastery of a detail of human affairs melted quickly when the pistol muzzle swung toward him in an unmistakable promise of murder. The thought of Ruth being left alone with the baneful presence that looked out of her eyes and lent an efficient, calculating wariness to her

every act, was enough to dissolve both his nerve and his will.

He grasped a chair, raised it aloft, and brought it down on the assembly of delicate mechanisms and devices that surrounded the great globe.

Orbis, driven by a frenzy of terror, was also engaged in the wanton wrecking of the creation that had taken years of thought and effort on his part to produce. Two chairs, one wielded by the old experimenter, the other by Dane Thorne, rose and fell methodically, until only tangled ruins remained of the apparatus. The quartz globe was smashed. The incandescent contents of the crucible inside it spilled on the floor, igniting the wood. Perhaps part of the heat in the molten stuff was energy freed from its disintegrating atoms.

Automatically Thorne reached for a fire extinguisher on the wall. Simultaneously, there were three crashing reports behind him. Orbis, standing dazedly near, stiffened, gasped sibilantly, and slumped down amid the debris of his apparatus.

Thorne, in spite of the dread import of this latest piece of adverse fortune, still had enough presence of mind to turn about slowly. An abrupt movement of any kind might have brought him the same treatment which had been accorded to the old doctor.

There was no doubt that it was Ruth who had fired the shots. She had crumpled against the door, as if pushed there by the recoil of the heavy weapon, which now lay smouldering on the floor beside her. She was wringing her bruised fingers, and on her face there was a look of numb terror and surprise, as if she had just awakened from a horrible nightmare.

"Daddy!" she screamed. "Daddy! What happened? What did I do?"

Defensive impulse made Thorne leap to her side. He picked up the gun and pocketed it. When the police investigated— Thorne's mind was working like lightning. He touched Ruth's shoulder in a gentle gesture.

"Sit tight, kiddo," he said.

Then he rushed to where Orbis had fallen, and bent over him. The old man's clothing was soaked with blood,

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all three bullets having entered his back. But he was not yet dead. His eyes were open.

"I heard what your daughter just said," he whispered. "She wasn't—mad. She was being controlled—from outside herself—until she awakened a moment ago. Just a hunch of mine—partly. Maybe I'm a little to blame for all that happened. How did things begin? What I mean is, were there any—any strange circumstances that you noticed before you came here to my lab?"

"Yes!" Thorne replied quickly. "I saw a tiny cone of what looked like gray mist, in my apartment. I was playing the piano, and then the cone appeared suddenly from out of nowhere. Ruth had the gun pointed at me a couple of minutes later. Maybe the cone is still in the miniature garden where it materialized."

"Then take me to your apartment—at once!" Orbis said with tense effort, his withered, ghostlike visage animated by a burning eagerness. "I must see, I must understand, before I— No! Don't trouble about the blaze! What we must do is far more important! Anyway, the building is fireproof. The flames cannot get far, though they will not be easy to extinguish. The incandescent fluid from the crucible is molten iron, part of whose atoms were breaking up—freeing their energy. Fire kindled by it is more difficult to put out than that kindled by thermit. Throw the pistol where the heat will erase what evidence it bears. Hurry! I hear people's voices!"

SOMEHOW Thorne was conscious of a deep confidence, now, in the dying scientist. In his last minutes Orbis was proving himself truly great in more ways than one.

Thorne tossed the automatic into the wreckage of the flaming atomic apparatus. Then, gently he raised Orbis in his arms, and carried him toward the door, against which Ruth still crouched, frightened, tearful, and uncomprehending.

Several loud reports sounded behind Thorne, as heat exploded the cartridges still in the magazine of the pistol. The

din provoked cries and shouts of consternation and suspicion among the various tenants of the building who had been attracted by the disturbance in the Orbis apartment, and had now gathered in the corridor without.

"There's been an accident here," Thorne was explaining a moment later to the people in the hall. "Someone phone for a physician, and call the police and the fire department."

Before any zealous souls could offer inconvenient assistance, Thorne, carrying Orbis and followed by Ruth, had entered his own quarters, and had fastened the door against any immediate intrusion.

Orbis' eyes had been closed, but now he opened them again.

"The cone!" he rasped thickly. "Where? Show me!"

Dane Thorne looked toward the jardinière, which contained the miniature Japanese garden.

"You won't be disappointed in that respect, Doctor," he said, carrying the old man close to the table.

Orbis twisted his scrawny neck to see the peaked, inch-high enigma of gray, pearly translucence that still rested beside the toy lake. For a minute he looked at it with fierce, scientific interest. Then the thing began to fade swiftly from view. It was withdrawing back into the unknown place or region from which it had sprung.

Orbis sighed.

"Put me down somewhere," he commanded.

Thorne laid him on a divan, went to the medicine chest for first-aid materials.

"Don't bother too much about my injury," Orbis said when Dane returned. "I'm done for. My fault, I think, though somebody is liable to be accused of murder. But there're still several matters which I still want to—must—know about! Your daughter—talk to her—ask her if she was conscious of anything when she was—was under the outside influence."

As he worked over the old experimenter's mortal wounds, Thorne called Ruth close.

"What's the last thing you remember

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(Continued from page 125)

before you woke up in the Doctor's apartment, kiddo?" he asked.

Ruth looked at him with vague, frightened eyes.

"I was some place that wasn't like here," she said. "There was a green sun and a green sky. And there weren't any real people. Just big goblins, all black and shiny. The goblins were scared. They'd been scared for a long time."

"What were they scared of, little lady?" Orbis questioned.

"At night there were things like the moon shooting through the sky," Ruth responded. "The goblins were afraid that those things would hit the place where they lived, and kill them all. For a long, long time they'd been afraid, and had been building a machine. They'd found out somehow that a very big giant was making it so they were in danger."

Orbis, doomed though he was, seemed almost avid with eagerness as he listened to the child's strange account.

"Did the goblins tell you all this?" he demanded.

RUTH frowned in concentration before she answered. "No," she replied matter-of-factly. "I was one of the goblins. I wanted to kill the giant. I was very, very angry."

"That's enough," Orbis gasped. "I know now. I was the giant. The cone was the machine the 'goblins' built. It was a mental-control device—expanded in some way—sent up from an atomic micro-solar system. I suppose the more flexible minds of children would be more susceptible to its influence than the minds of—adults. That's why—the 'goblins' chose Ruth as a subject—a tool—instead of you or me, Thorne. My apparatus had to be destroyed, and I had to be destroyed too, so I couldn't build another apparatus."

"What are you talking about?" Thorne demanded sharply.

"Don't you see?" Orbis rasped. "The nucleus of an atom is a real but tremendously small sun! The electrons which revolve around it are real planets! I was beginning to succeed in the release of atomic energy, the basis of which

atom-smashing. I was destroying worlds, Thorne, a few of them inhabited! I was using a form of corpuscular bombardment to do this. Here, in the inner texture of the soil of your toy garden, was one of these inhabited planets.

"Stray corpuscular radiations, leaking form my equipment, were shooting through the wall between my apartment and yours. An extremely minute part of those scattering corpuscles was threatening our friends, the 'goblins'. But their science enabled them to find me out. They—took steps. Many ages of their time must have been needed to deal with me, for a second in our Universe must be a very long interval in theirs. I got just what I deserved, Thorne. I should have known. I must have wiped out many micro-civilizations during my experiments!"

Orbis' eyes closed, and he lay panting shallowly and swiftly. He couldn't last much longer; that was evident.

"Just one thing more for me to do," he said. "The police will never believe the truth."

Thorne made no more inquiries. Worried about his personal affairs, he held Ruth in his arms and waited. There were shouts and cries all over the building. A siren was shrieking in the street without. But by now the fire in Orbis' lab should be under control, for during the past few minutes at least a dozen people had been fighting it.

Dane admitted no one to his apartment until a physician arrived. With the latter were two husky cops. Here at last was the moment of grim significance for Thorne and his little daughter.

"Just what happened here?" one of the policemen asked suspiciously, glancing first at Thorne, and then at Orbis.

THE old experimenter's dulling gaze flashed a warning look at the man whose daughter had sent three slugs into his body.

Then he chuckled in feeble, rasping, Satanic glee.

"Certainly a man has a right to destroy his own property, has he not?" he asked wildly. "Certainly he has a right to take his own life! But this fel-

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(Concluded from page 127)

low, Thorne, wanted to interfere. He heard noises of apparatus being broken. He came to see what was the matter. But I held him at bay. I made him help me with the work of destruction! I promised him that he and his child would not leave my laboratory alive! Then I gave him the chance which was part of my plan. Oh, it was a clever plan, in which I foresaw all that would happen! But nothing is difficult for a sceintist as great as Theodore Orbis!

"I let Thorne wrest the pistol from me. And then I seized the little girl, and said I would tear her to peices. What Thorne did then was natural. He fired three shots into my back. I have done that which no man has ever done before! I have achieved suicide by the hand of another! Theodore Orbis has a colossal intellect! Ha, ha, ha! You're all fools! Ha, ha, ha!"

The dying man's strange, brilliant, histrionic "confession," which branded him with the false stamp of insanity, ended in a weak though horrible fit of coughing. Black blood poured in a torrent from between his lips.

Thorne standing helplessly behind the physician, was conscious of mixed feelings of tremendous relief and tremendous respect. He was clear. Ruth was clear. There would be little further investigation now, considering Orbis' reputation for eccentricity. The old scientist was a brave man. This last fact should be broadcast to the world; but no, it never could be. And for the sake of countless living worlds, hidden behind the veil of incredible minuteness, it was well that the story of Orbis' experiment should never be told.

Filled with a mighty gratitude, Dane Thorne stooped, and hugged his child to his breast.

Solution to Crossword Puzzle

(See Pages 118-119)

G	A	S	■	P	S	O	R	A	■	S	O	L
E	G	O	■	H	A	R	E	S	■	P	I	E
L	E	U	C	O	C	Y	T	E	■	A	L	E
■	■	T	O	T	■	■	E	P	I	C	■	■
E	T	H	M	O	I	D	■	T	R	E	E	S
A	R	E	A	■	R	A	D	I	O	■	R	I
R	U	R	■	M	I	M	I	C	■	T	O	N
L	C	■	M	E	S	A	D	■	L	O	D	E
Y	E	A	S	T	■	N	O	N	A	N	E	S
■	■	O	L	E	O	■	■	E	S	S	■	■
E	A	R	■	O	X	I	D	A	T	I	O	N
W	I	T	■	R	I	D	E	R	■	L	I	P
E	R	A	■	S	M	E	W	S	■	S	L	Y

THRILLS IN SCIENCE

(Concluded from Page 107)

ordered mailbags made of his remarkably treated rubber. His formula was a success!

But disappointment was in store for the experimenter. The mailbags made for the government proved worthless. They decomposed into small pieces even before they could be delivered. Goodyear was discredited, laughed at. Penniless, broke from the expenses of patenting his processes, Goodyear saw his hopes fading.

But the rubber man kept on. Again and again he continued his experiments. He wouldn't quit. Day after day, year in, year out, he labored. He refused to take no for an answer. But he was temperamental. And who can blame the man after going through one crushing heartbreak after another? One morning, disgusted over the outcome of an experiment, he threw a strip of rubber into the fire.

Then the miracle happened. Heat—the very heat that caused the melting of rubber Goodyear had set out to cure—charred the sample of rubber he had treated with certain chemicals into a substance as durable as leather! Quite by accident, Goodyear had discovered the secret of vulcanization!

He had found his pot of gold, this man, for Goodyear's strip of vulcanized rubber was the forerunner of today's billion-dollar rubber industry.

Accident is the mother of invention!

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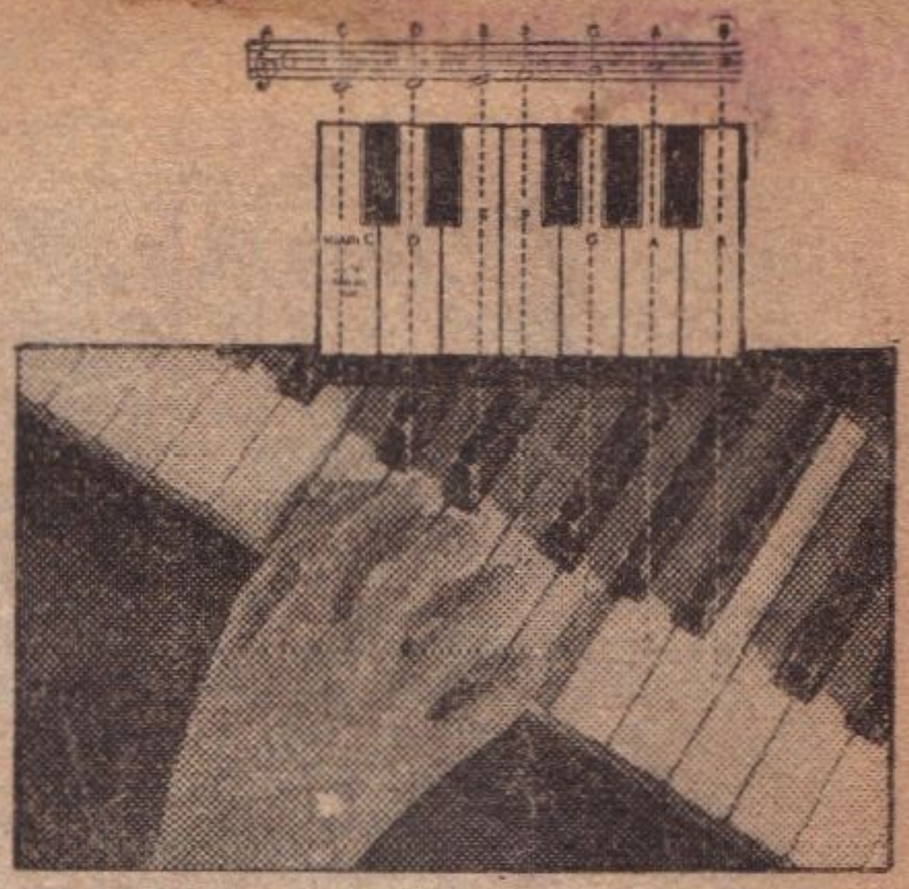

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** Actual pupils' names on request. Pictures by professional models.*

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