

NEW WORLDS

- PROFILES

Wilson Tucker

Illinois, U.S.A.



I am forty years old, the eldest son of poor, but not necessarily honest parents, and I think the present generation is going to hell in a bucket. My grandmother said the same thing of my generation but she was opinionated. I was born in and brought up in Illinois; the last log cabin having been torn down shortly before I was born, my chances of becoming President were lost.

I have wanted to write ever since I was a child-ever since the day in fact that I discovered writers made Big Money and wallowed in Prestige. I have been writing now for fourteen years and I am still waiting for my share of both. My first fiction sale was to a science fiction magazine in 1941 and for the following five years I sold short stories at a glorious rate-one a year. I then turned to mystery writing to produce a detective novel. People were kind enough to say polite things about it, so I wrote a second. People soon realised their initial error but it was too late; to date, I have published nine books, five of which are mysteries and the remaining four science fiction.

I think we will have visitors from space long before we are able to visit them. I also think the military machine will put a rocket on the Moon in the near future, if they haven't already. Beyond that my opinions are practically worthless.

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Although he was unaware of it. Paul Breen had been the target of the most intensive FBI search in history—ever since he was thirteen years old! For Paul had a talent—rather, he was infested with a talent—that had very definite uses but made him a most uncomfortable berson to have around.

WILD TALENT

By Wilson Tucker

Illustrated by QUINN

Part One of Three Parts

1

1953

The microphones were dead, had been disconnected for many days, No one cared any more. No one bothered to keep up the pretense. She had angrily broken all the connections, but no punishment had come. The hard decision had been made downstairs, and there was no turning back from that decision—so there would be no retaliation no matter what she did. The sham had been abandoned. She spoke aloud, keenly enjoying the novelty of being able to speak without fear of the listening microphones. They couldn't listen any more; she had smashed the things. She asked a question aloud but didn't really expect an answer.

"They intend to kill you? Now? Today-tomorrow?"

She was a pale, tensed woman who stood beside the window and stared down at the immaculate green lawn three stories below. Figures moved about down there, manilke figures who carefully avoided looking up at the third-floor windows. Strolling puppets, and the other puppets who spied on the puppets. The unnatural whiteness of the young woman's face, the nervously playing fingers clasped behind her back—these were the only outward indications of her anxiety. She stood erect, tauthy waiting and watching at the window, waiting for

anything at all to happen.

"Paul . . ?" He hadn't heard, wasn't listening. He was reading again.

Her resentful gaze followed the puppets on the lawn, judging them, measuring them. An occasional figure in trim military uniform strolled across the well-kept lawn and across her line of vision; sometimes the military figures were accompanied by still other men in civilian clothes. She knew those other men. She knew which of them were security agents and which were staff members of the house, at though they strove to intermingle and thus hide their numbers and their identities. She knew who were the clerks who carried on the routine things and who were the government agents watching over the clerks; she knew the cable and wireless operators, the decoding experts, the maids and butlers and cooks and houseboys, the bodyquards. She knew the men who had only recently given up their earphones when she disconnected the listening ears. All of them, all the puppets were like an open book—once the cover was turned they could not hide their secret identities from her. Nor from him, from Paul him, from

Without turning from the window she spoke again, raising her voice

to carry through his absorbed attention.

"Paul-this decision to kill. Is it definite?"

"Yes." The man answered absently, his thoughts away. He was immersed in a heavy book.

"Which one? Who is to do it?" Her quick gaze darted over the strolling men. "Do you know which one?"

"I'm not sure," he said slowly. "I think it may be that new one,

they call him Colonel Johns. But I'm not sure."

The woman lifted here eyes from the tended lawn and the trim

The woman litted here eyes from the tended lawn and the trim uniforms to seek the horizon, to seek the high stone wall and the heavy growth of timber that was their enforced horizon. The timber was old and tall and beautiful against the blue Maryland sky, but the wall was new and rough, its top strewn with broken glass and alarm wires. She could see the late afternoon rim of the low-lying sun above the graceful trees, the roseate clouds formed in gentle ridges above the sun and flapping birds blackly silhouetted against the clouds, but her concentrated stare could not penetrate the stone wall. Something else was needed. The wall was new and had been built only a few years before, a disgrace in its picturesque setting. Her eyes could see nothing beyond the wall, nothing in or among the trees although she knew what moved there.

She knew men were there, just over that wall and scattered among the trees, men who watched and guarded those inside without ever knowing whom they guarded. The snipers crouched in concealing branches, stiff in their long-unmoving positions while below them the machine gunners patrolled the ground in pairs. Wild life was unwelcome, the small game and birds had fled with the coming of the soldiers. Their abrupt, ringed horizon was scarcely a mile from the big house.

"Colonel Johns," she mused, her voice now low and emotionless.

"He is army, I think. And the others?"

"A friend of Slater, a hand-picked friend for this job. He's armyyes." Paul moved slightly in the chair, the better to catch the light
on the book he held. "The rest of them are keeping hands off. Somewhat afraid, I suppose, and not sure it's the right thing to do. Outwardly they agree with my sentence, but they personally refuse to
carry it out."
"Colonel Johns came in from Washington a few hours ago."

Paul nodded, "Slater was with him."

"Here? He's here in the house now? That is unusual."

He nodded over the book. "They brought the decision. I'm sure

" From Washington?" she questioned. "From how high up?"

"No higher than Slater. He made it." Paul glanced up from the page. "Not what you are thinking—not the top. Top nan will be told that I met with an accident, a very common but believable accident. Everyone will express keen regret at my unfortunate demise, crying the tremendous loss to the nation." He smiled briefly and dryly. "Top man is not an unduly suspicious man. He believes in those he trusts and he's had no reason to distrust Slater." His eyes were locked with hers, call man davarm, revealing his affection for her.

"Paul!" She quickly left the window and crossed the room to him, pushing the book from his hands. Softly and tenderly she raked his cheek with the diamond in her engagement ring. "How can you

read . . . ?"

Paul retrieved the book from where it had fallen, awkwardly open. He closed it and put it down on the table beside the chair, to reach out and pull her into his lap.

"I hadn't read Robinson before," he told her, tapping the volume

with a finger. "I wanted to finish it."

She relaxed in his lap and laid her head on his shoulder, burying her lips on the soft skin just above his collar. "Paul, what if . . .?"

"Don't," he cautioned, and glanced by habit at the corners of the

Her answer was muffled against him. "All right." The lips moved on his neck. "But how can you read!" She put her arm around his head, drawing him closer.

"Too bad old Robinson isn't here to witness the answer," he told her and wrapped his arms about her waist. "He would have enjoyed it, in a way. Someone decided to solve his Situation Thirty."

She moved her head, "I don't know that."

"Robinson was a classroom strategist of the military school. He posed problems and the students had to solve them. Among those problems was a classic, one seemingly without an answer, and then he pointed to a solution if anyone dared take it. The student was expected

to solve the solution as part of the problem, I gather.

"Robinson's problem was a simple one. It consisted of two fighting ships, nemies, who chanced upon one another suddenly in the darkness and then uneasily stood off, watching each other. Neither could attack the other with hope of victory because they were absolute equals; neither could turn and run for port, for such a move would reveal the direction and perhaps the location of that port. All that apparently could be done was to stand and watch until eternity, always waiting for the other to move first.

"Robinson then advanced to the next step. The men of one ship, in plain view of the other, three woreboard a mysterious hollow sphere which in time drifted across to the second vessel. It was not a mine, obviously, so the second ship took it aboard. The war of nerves then set in, which was the real intention behind the launching of the sphere. The commander of the second ship was afraid to open the sphere for fear such tampering might cause an explosion. Similarly, he was afraid not to open it, for the thing might prove to be a time bomb. And finally, he could not afford to simply throw it back into the water, for it occurred to him that a second contact with the sea might be just the trigger to set it off—if it was a mine. The explosion would take place against the side of his ship. The problem devolves upon maris magination and fear of the unknown. The ship's commander would

eventually destroy himself with his own uncertainty, and that collapse might bring about the bloodless victory the first ship awaited."

"So he must retaliate," she offered.

"He must; he sends back a sphere of his own, and the stalemate is as before. Robinson pointed to the only solution. One commander must set a blowtorch to the sphere and open it, prove it harmless. Either it explodes and sinks him, or it doesn't and he is free to plan something else. The question is—what else?" Paul hugged her to him, "Downstairs, or in Washington, they've at last decided to solve Robinson's problem. Colonel Johns has probably been chosen as the blowtarch."

"How will he do it?" she asked quietly.

"They don't know-yet."
"When?"

When

"Tonight, I think. But before sunrise tomorrow, surely." She jerked up. "So quick? So soon?"

Paul echoed her words. "So quick, so soon. While they still have the nerve up."

Despite her rigid self-control she found herself shivering. "I can't

help it, Paul. I'm frightened, inside."
"Don't be, angel, don't be." He drew her back to him for warmth,

to stop her quivering, and pulled her head down on his shoulder. Beyond her the afternoon light was fading from the window. As though knowing he was looking out, she said, "It's a lovely

As though knowing he was looking out, she said, "It's a lovely Maryland sunset."

"I've seen Maryland sunsets. Many of them."

"Aren't you afraid?"

"Of them? Or what they will do? No. I only regret it, all of it."

"Paul, Paul, how did you ever get into all this, why did you ever get mixed up in it?"

His gaze remained on the sky beyond the window, on the tips of the trees moving slowly against the sky. "A little boy got me into it, a young fellow on the streets of Chicago named Paul Breen. A little boy who knew too much, but not enough to keep his mouth shut, and who wanted to play G-mar.

"And finished here," she said bitterly.

He nodded silent agreement. "And finished here."

A little boy grew up, and finished here in a large old Maryland mansion which resembled nothing so much as an army staff headquarters perpetually on the eve of a major campaign. The uniformed officers constantly parading the well-kept lawn, entering or leaving the house on mysterious errands of their own, or strolling with no apparent purpose. While in and out among them wove a formless pattern of civilians, a clerk, a butler, a radioman or a secret service agent, pretending to be something else. And none of those with knowledge

would glance directly at the third-floor windows.

Beyond the beautiful lawns, beyond the ugly wall were the far woods and more men paraded there, watching the wall and that part of the house that could be seen above the wall; watching the fields in the opposite direction. Nothing moved through the woods in either direction. nothing passed the lines of picketing soldiers. Nothing alive, or lacking a pass. The Maryland mansion represented the tightest security stronghold since the days of the old Manhattan District, more than a decade before. More guarded than Fort Knox, than Oak Ridge or Hanford, than the White House,

All because a young boy named Paul Breen discovered a wild talent

and knew too much and too little. Paul broke the silence between them. "I once had a very good friend who guessed this might come. He called me a name and called

himself another."... "Slater stopped that," she responded bitterly.

"Slater stopped them all, one way or another. One by one he robbed me of my friends and-removed them. I owe him something

for that," The distant sun sank behind the trees, trees thick with men and guns, giving warning of the coming twilight. The house was fairly quiet with only the subdued talk of many men gathering for a meal, coming in from the outside. Paul spanked the girl lightly, fondly.

"Dinner should be ready. See about it, will you?"

She hugged him the tighter, refusing to move, "Oh, Paul !"

"Now stop that !" he warned. "Don't lose your head, don't be panicky. You aren't included in the decision, so you will have to take care of vourself. Watch for the breaks and use them."

"I wish they had included me!"

"No you don't." He touched the ring on her finger. "You aren't dangerous to them; they know very little of you. They know nothing important. And they used that to keep you here, to keep you quiet. He moved the ring with the tip of his finger. "Take advantage of it. This will be awfully rough, so take care of yourself." "I don't care if it is rough. I can take that. I can stand it. I'm

not afraid of them "

His hand closed around hers, encompassing the ring. "The important thing to remember is that you don't know anything. The less you know, the longer you will live. You aren't supposed to know anything about me, about what I've been doing here; you know nothing of what is to happen. You've never heard of Colonel Johns and what he's going to do to me. Remember that !"

"All right, Paul," She kissed him tenderly. I'll remember. And

afterward . . . ?"

"Afterward, do just as you planned to do. Watch for a break. When it comes, run for it and don't stop running. If they catch you . . . well."

"They'll never catch me. Paul. I promise you that,"

He moved forward in his chair and pushed the girl toward the edge of his lap. "I'm hungry. Please see what's holding up dinner." She struggled to retain her seat, tried to kiss him once more but he

stood up, laughing. "Move! I'm starving."

She gained her footing, winked a secret thought to him and crossed over to the apartment door. Her outstretched hand hesitated on the knob and she looked over her shoulder for a quick, fond glance. "I'm glad you love me. Paul."

And opened the door.

She remained there for long frozen seconds with the door half open, staring into the corridor outside, staring at someone beyond his line of vision. Her hand flew to her mouth to shut off a scream and when she turned to him her face was flushed and frightened.

" Be careful !" he shot at her. " Know nothing ! " " Paul . . ."

"Yes?"

"It has been very lovely knowing you, darling," she whispered. " Good-bye,"

And she was gone from the doorway, roughly shoved aside by a tall, ponderous man who seemed every inch the suave man of distinction. The newcomer was not in uniform, but he could not discard his military bearing. He stepped quickly into the room and shut the door behind him with a forceful, positive action,

Paul did not move from the chair. "Colonel Johns?"

"Since you know my name already-yes."

" Please come in."

"I am in." Briskly.

"Thank you. I've sent down for dinner. Will you join us?"

" No. And it will not come."

"Oh?" Paul relaxed in the chair with one hand resting lightly on the volume of Robinson. "Now . . . ?"

"Now." the colonel echoed bluntly. He remained at the door, braced against it. "And I shall dispense with the formalities." He pulled a service automatic from under his coat. "There will be none of this nonsense with last meals and last words. If you know my name, you also must know I have the same regard for you as I do for a snake. I hate snakes." He raised the gun to eye level, taking careful sight on Paul.

Paul Breen still did not move from the chair. "There is nothing I can say?" he asked quietly.

"Nothing. It is decided." The finger tightened on the trigger.
"Then I am sorry for you. Good-bye, Colonel Johns."

The barrel of the gun flipped in a quick arc and exploded into flame.

The walls were soundproofed. Not even the deadened microphones carried the sound of the booming shot.

11

Paul Breen was thirteen years old, he had seven dollars and fifty cents tightly wrapped in a handkerchief stuffed down in his pocket, and he was going to the Fair. No wealthier, happier human existed on the planet. Chicago was a hundred and thirty miles away and the bus fare was quoted at more than two dollars. That was too much, Paul waited in the railroad yards for the freight train that passed

through every morning just before noon.

People had talked about the Fair all the previous summer, igniting in him the magic spark of desire, the compelling urge to see it, but in 1933 he had been but twelve years old and his aunt had firmly forbidden him the journey. Happily, unexpectedly, Chicago was repeating the wondrous exposition for a second time the following summer, and that summer he was no longer a child but a young man in his teens. The very first of the teens, but that was brushed aside as unimportant. His aunt still said no, meanwhile silently cursing those who were responsible for the repetition, those who would bleed a good thing for the last dollar-hadn't the papers reported the Fair a tremendous financial success? Paul persisted, knowing that this second summer would be his final chance, and at last the badgered woman gave her reluctant permission but with a condition attached. The condition was her out, her excuse, her method of shifting the blame from herself to someone or something else. She thought she saw in the condition an opportunity of directing the boy's coming disappointment another way. He could go-if he had the money to take care of himself. That was only sensible, and it relieved her of a decision, of a blame.

Paul surprised her two months later, in August. And in response to her curious, annoyed questioning he told in detail the accumulation of each cent, each dollar, together with the names of men and places



and dates and jobs. Seven dollars and fifty cents. That was more, much more, than some men owned in the summer of 1934.

Paul went to see the Century of Progress Exposition in Chicago.

He sensed the approach of the railroad detective before he saw the man, guessed the man's identity before the questions revealed it.

"Hey there, buster. What you doing here?"

"Waiting for the train," Paul told him.

"What train? The train stops down there at the station." The man towered over him like an orge.

"Waiting for the train," Paul repeated inanely. The detective studied him. "How old are you?"

"Thirteen."

"Your folks know about this?"

"I live with my aunt. She said I could go. If I had enough money."
The boy was faintly defiant, feeling the need to bolster his sagging nerve, but still hoping the belligerence wouldn't be noticed by the detective. "I got enough."

" How much?"

Paul brought out the knotted handkerchief to show it briefly and then thrust it back into his pocket again. "Seven dollars and fifty cents."

"Seven dollars and fifty cents," the detective repeated. "So you're

going up to the Fair?"

Now how had he known that? "Yes, sir."

"Ever been to Chicago before?"

" No, sir."

"Well, let me tell you something, buster. That freight doesn't stop here and it'll be rolling too damned fast for you to catch it. Now you go on up the line to the crossing; there'll be a red light set against the freight and it'll have to stop there. But don't you climb on until it stops rolling, do you understand?"

"Yes, sir !" The darkness was chased away and the man wasn't

going to prevent his trip to the Fair. "Up at the crossing."
"And let me tell you something else: don't ride into the Chicago

yards. They'll pick you up for sure and throw you in jail. You don't want to go to jail, do you?"

" No, sir ! "

"All right then—when that drag slows down at the edge of the yards, you get off. And watch yourself." His hand suddenly came out of his pocket. "Here."

A half dollar. And now he had eight dollars.

Despite the warmness of the August day, the moving freight was chilly, and he was thankful for the jacket his aunt had insisted he take WILD TALENT

along. He put it on and stayed near the open door of the boxcar, half determined to jump if the drunken man riding at the opposite end of the car approached him. The drunk mumbled something at him, but kept his place, toppling over to sleep after a while. When the freight slowed at the outer edge of the Chicago yards he did jump out, stumbled and fell on the cinderbed, but got to his feet immediately and ran across the tracks to the street. His hands were dirty and scratched from the fall on the cinders, while his face felt grimy from the locomotive smoke.

He had never before entered a saloon, but he knew there were washrooms in them. Paul turned in at the door of the first one he came to —an easy thing in Chicago in 1934—but was just as promptly chased out again. For the second attempt he waited until he found one crowded with men and slipped in because the bartender was too busy to see him. He was seen as he emerged from the washroom and again ordered into the street, but he had accomplished his objective. A woman told him which streeters would deliver him to the Loop, From there, special buses ran to the Fairgrounds. And he was in Chicago with a few cents less than eight dollars in his pocket.

With a single purposeness of mind he went directly to the Fair, bought his admission from a dazzling young woman in the box office, and in the next minute stood lost in rapturous wonder gazing down

the beautiful Avenue of Flags.

Late at night, long after darkness had come and caused the modernistic buildings to be bathed in riotous electric colours, Paul left the exposition grounds to ride another bus back to the Loop. The street names there meant nothing to him and he didn't bother to memorize them; the place where he would catch the bus again in the morning was fixed in his mind, and that was all that mattered. He knew he was in the Loop as long as he staved within the shadow or sound of the elevated trains and so he wandered around. Supper was taken at a restaurant bearing a price sign on the window; one of the dark and noisy streets beneath the elevated structure had many such eating places. Full meal, 35c. Complete dinner, 29c. All you can eat, 24c. Three-course dinner, 22c. And the same street seemed to be crowded with hotels for men, in hot competition with one another; they bore their fees on the door. Rooms for the night, 50c. Clean rooms, 35c. Rooms with breakfast, 40c. He decided on that one; not now, not just vet-it was too early to go to bed, but he would come back to that one. Breakfast thrown in for free was too tempting a bargain.

The street was a fascinating place.

There was a man standing in a dimly lighted store entrance, selling little paper clowns that seemed to dance upsupported in the air. The man would pick a clown from the cardboard box under his arm, reach down as though to set the clown on its feet, and the paper doll would madly dance on the dirty sidewalk. Paul looked at the black thread on which the clown had been fastened and followed the thread to a second man who stood eight or ten feet away. This other man stood with his hands behind him, jiggling the end of the thread in his fingers. Both peddlers, Paul noted, kept constant watch for a policeman.

There were drunken or sleeping men in all the darkened doorways, some of them lying flat on their backs or stomachs on the sidewalk, and no one stopped to look after them. There was a ragged man sitting on the curbstone with his shoes off, resting his feet in a pool of filthy water. There were men who looked at him, watched him walk by and were still looking as he passed down the block. And again there was a policeman who stopped him, questioned him, and he

repeated the story of his aunt and the trip to the Fair.

There was a theatre that remained open all night and the admission price was only a dime. He went in and watched the picture through twice, Marie Dressler in Tugboat Annie. He also found amusement in watching the usher making his rounds; every half hour the man walked up and down the aisles, searching out the sleepers, to awaken and eject them. Paul was dozing near the end of the second showing, but sensed the usher's approach and turned wide-open eyes on the man when he paused near by. He left the theatre shortly afterward.

Many of the lights were out and the street was considerably darker, considerably lonelier. The roaring, clattering din of passing elevated trains was heard less frequently. He walked aimlessly along the streets. turning corners at random, unsure of his directions and disoriented after the long stay in the theatre. Another corner that seemed familiar, and he turned eagerly into the new street-but it was not the one with the restaurants and hotels. He was about to reverse himself and continue along in his original direction when he saw the man.

At first he thought the man was drunk, but in the next instant Paul realised it was something else. The man was on his knees at the mouth of an alley, just hidden from the street. He seemed to be hurt-shot. The man was shot. Unthinkingly, Paul walked closer. The man in the alley heard him coming and twisted around to stare over his shoulder.

Paul stopped at the alley. "You've been shot."

"Get out of here, kid. Get going !"

Paul stood his ground, frightened but fascinated. The fear in his mind urged him to run, to run as fast as his legs would carry him, but WILD TALENT

the man down on his knees was a policeman who had been shot. "You've got to get them! They can't shoot a cop and get away with it."

"Get the hell out of here now, you little fool!" The wounded man clutched his side, staring foggily at the boy. The short image seemed

to waver and dance.

Paul hesitated an instant longer, suddenly knowing many things, suddenly aware of the terrible pain the man was experiencing. The man wasn't an ordinary policeman, he was a G-man. From Washington. He wasn't carrying a gun. And he had been shot in the side, high—near the shoulder, and it hurt like sie. The images of the street and the boy (himself), were foggy, wavering. The man's name was Bixbv.

"Mr. Bixby, I'll go get help. They can't shoot you and get away

with it !"

Bixby turned startled, groggy eyes on the boy's face. "How did

you know . . . ?" and he toppled over, the sentence unfinished.

Paul Breen stared down at the body with growing terror. He knew it was body, knew the government agent was dead. A black horror seemed to dance and settle on the man's upturned face, an undefinable blackness that suggested fading. , fading , fading , Paul turned and ran, ran until the breath choked up in his throat and the tears streaked his cheeks, ran until his legs ached and the long exertion pained his chest. He fell suddenly, stumbled and all but collapsed on the unawept sidewalk, brought down by the desperate shortness of breath and the strained leg muscles. He sat down then, sat on the sidewalk and held his hands to his face, fighting back the tears, gulping in the needed air, trying to calm himself. He was still there, not fully recovered and not yet free of the horror, when a man stopped beside him with the usual questions. This once he hadn't sensed the stranger's amproach.

To evade the exact truth, Paul said that he had lost his street and hotel, had been wandering about for an hour trying to find them again. In response to the questions, he described the street as best he remembered it and told of the many restaurants and hotels with the cheese prices pasted over their doors and windows. The stranger pulled him to his feet, to walk him less than four blocks and put him on the desired street; he stayed with the boy until Rooms with breakfast, Aco loomed up in the night ahead of them. Paul remembered to thank him, and climbed the stairs to the second-floor lobby.

The old, old man rocking contentedly in the lobby regarded him rather oddly when he came in, when he asked for a room, but the old one took his forty cents and locked it away in a cashbox, took up a

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flashlight and began climbing the stairs to the third floor. Paul sucked in his breath with disappointment and stared at the rooms.

There were many rows of cubicles, long rows of them and they appeared to be constructed of nothing more than heavy paper. Each had a door that could be closed, each was covered at the top with hicken-wire netting. A strong smell hung in the air. A single light bulb burned at the head of the stairs as they entered, while another red one could dimly be seen in the far dark reaches of the room. The old man flicked on the flashlight and led him down the sails to an empty cell, pointed at it with the flashlight's beam and then turned on his heel without a spoken word. Paul stood in the aisle and watched the oldster vanish down the stairs.

He went inside and closed the door.

By peering closely in the dim light he could make out the message stencilled on the back of the panel. Lock the door. Paul moved the bolt that locked it, and sat down on the cot. There was one blanker, folded over to form a pillow. He unfolded it, lay down on the cot without removing his clothes and spread the blanket over him. After a while the pattern of the chicken wire overhead was visible in the near darkness. There were many men sleeping in the large room, in many of the cubicles, and most of them were noisy in their sleep. Over all was the odour of strong disinfectant.

Paul drifted off to sleep.

He wooke sometime in the night, awoke suddenly and without reason to stare wildly around him, uncomprehending. Slowly the shapeless forms took substance in the poor light and he saw the walls of the cubicle, the stencilied message on the door and finally the wire overhead. And then he realised where he was. Chicago—at last, Chicago The World's Fair. The continued dream of two summers come true. He was in Chicago and that afternoon he had seen the Fair and tomorrow morning he was going back again. And what else

Mr. Bixby.

Mr. Bixby was a government agent, a real G-man, and he had been shot down, sinking to his knees in that nameless alley. The G-man didn't have a gun, but those two men had shot him.

What two men?

Why, those two men who were hiding in that upstairs window, across the street from the alley. Had he seen the men? Well ... no, he hadn't actually seen them but he knew they were there, knew they had fired the shots. How did he know that? Well, now ... He didn't know how he knew it. But he did know!

He had been walking along the street and had found Mr. Bixby in

the alley, wounded. Two men concealed in a second-floor window across the street had done the shooting. Those two men still crouched there, watching, as he walked along the street, as he stopped to talk to Mr. Bixby, as the agent died, and finally as he field in terror from the unknown black thing on the body. They had stayed behind the window curtain and seen it all. He had been fully aware of their presence at the time, but hadn't given it any thought, being much too concerned with the wounded agent. Still, he knew all about them.

How had he known Mr. Bixby's name, and that he was a G-man? That was puzzling. Had he seen the man before—in the movies maybe? No. Had he been told? No. Mr. Bixby was trying to ask that same question when he died. How then did he know all about the dying officer.

No answer. He just knew.

As soon as he stopped to talk to him, he knew. He became aware

of who the man was, what he was, what had happened to him and who was responsible for it. And in the next moment he was aware of the two men crouching behind the curtains in the upper window. Mr. Bixby hadn't told him anything; he just knew. And he knew he was

It was as puzzling as those other things, the things that had happened

to him before.

Like that railroad detective back home, and the cop out on the street that afternoon, like the usher in the theatre who walked up and down the aisles waking everybody up. He had sensed the approach of each of them even though he hadn't been looking their way, had known who each of them was and what they were going to do or say before they actually spoke. But the puzzle wasn't confined to them. It had been that way with his aunt, too. For a long time now he had always known the nature of the questions she was going to ask before she actually asked them. Some of the time he had guessed the questions so far in advance that he had time to formulate an answer before the question came. Even the seven dollars and fifty cents, earned to insure his trip to the Fair. In his search about the town for odd jobs, he had only approached those men actually wanting jobs done. He had talked to no one who would turn him down.

But that's the way things were.

Paul dozed off a second time.

Breakfast was the hotel's second disappointment. The old man was still dutifully rocking in his chair as Paul descended the stairs and paused in the lobby, waiting. The aged one arose from the chair with a grunt and crossed the room to an oilcloth-covered table, flipping back a soiled towel to reveal a cold slab of beef. He cut two thin slices. rummaged in a bread sack for bread, and made the beef slices into a dry sandwich. And then he returned to the rocker and sat down.

Paul ate the sandwich, staring at the oldster.

"Have you got any writing paper?"

"No. Try the drugstore." "Where's that?"

"Down on the corner there."

He swallowed the last of the sandwich and glanced around for water. There was none. "Is that all I get for breakfast?"

" How much do you want for nothing?"

Paul left the lobby and went down to the street. He turned in at the first restaurant door and had a second breakfast for twenty-two cents. Afterwards he stopped at the drugstore and bought a stamp, but at the last moment decided not to purchase a paper and pencil because he remembered a place at the Fair where they gave the articles away free. And then he was running for the corner where the special

bus stopped.

The Fair was the same wondrous, magical place it had been the previous day; he bought another ticket and entered, stroed down the Avenue of Flags, passed the various buildings and exhibits until he found the railroad booth where stationery was available. There was even a special post office in the booth and letters mailed there would be stamped Century of Progress Exposition, Chicago, Himois. On a letterhead bearing the name of a great Western railroad, Paul Breen wrote a note:

I know who shot Mr. Bixby. It was a man named Tony Bloch. There was another man he called Bob and they hid in the window across the street, upstairs.

Paul could think of nothing more to add, and was on the point of signing his name when he thought the better of it. He scratched out the initial P that he had already written, and hesitated. How should it be signed? How did Mr. Bixby sign the letters and telegrams he sent to Washington? Rixby-twelly

That sounded as though it were a code name, but if Bixby used it, it must serve. He signed the note, Bixby-twelve. And folded it, inserted it in the envelope the railroad happily provided, affixed the stamp he had bought and hesitated again. Who should he send it to? Who would Bixby have sent it to?

There was no answer.

Paul wrote:

The President, White House, Washington, D.C.

And dropped it in the mailbox, liberally covered with his fingerprints.

He stayed two more full days at the Fair before his eight dollars were spent.

II

Paul Breen was twenty years old, had a satisfactory and comparatively easy job and was earning thirty-seven dollars a week when he made a shocking discovery about himself. The discovery came about as something of an accident and proved to be only the forerunner of what was to come. It helped to explain many things, once it was firmly grasped and understood. Paul found that he possessed a special faculty which other people apparently did not have.

The dictionary termed it telepathy, but the brief paragraph in the

dictionary did little to explain it.

At fifteen he had found his first steady job in a movie house, ushering during the after school hours and on weekends. The memory of the Chicago theatre usher did occur to him, but his duties did not call for similar work. In the small town where he lived patrons rarely fell asleep in the theatre; if they did, they were gently awakened and sent home when the last show was over for the night. Not many weeks on the job had passed before Paul was convinced that he was working in the wrong end of the theatre—the projections in the film booth had

a much better job.

He promptly put in his application, filed a duplicate application with the union when he found that to be necessary, and just before his sixteenth birthday he was admitted as an apprentice. For the first few weeks all he was allowed to do was to listen and watch. Illinois had a law prohibiting minors under sixteen from operating machinery. At the end of those weeks his knowledge of the projection apparatus was astonishing. Paul felt the questions coming. The projectionist questioned him about the knowledge, wanting to know if he had operated machines elsewhere. He said that he had watched the school instructors handling the smaller machines there and had obtained the rest from the projectionist himself, listening and watching. This literal truth, coming as unintended flattery, was accepted as satisfactory. The apprentice was marked as bright.

The apprenticeship was ended after two years and his first salaried job was in the same theatre; his teacher quit the projection booth to take a managing position. Paul was the projectionist, the envy of scores of local youths of the same age, and was earning thirty-seven

dollars a week. He promptly bought a used car.

The uncanny sense of knowing things continued.

The accident leading to his discovery of himself came in his twennieth year, in the projection booth, during the showing of what was billed as a horror movie. Nineteen hundred and forty-one was a year in which the second-rate horror movie vogue was in full swing. Bela Lugosi made horror movies, Lon Chaney, Jr., made horror movies, Lionel Atwill made horror movies, Boris Karloff made horror movies, and a host of lesser satellites made horror movies. Paul's theatre, fondly referred to as "The Bat Roost" by the local citizenry, played them all. The occasion of awakening was a special midnight show on WILD TALENT

Halloween (two dollars extra in overtime pay for the projectionisty), and the picture portrayed Boris Karloff playing merry hell with the police authorities, meanwhile luring pretty maidens from the safety of their homes by sheer mindpower. Also in the cast was a know-ti-tall college professor who claimed Karloff was using mental telepathy, a claim which was scorned by the police until near the end of the last reel.

Paul was fascinated.

Karloff lurked in the hedge beside the road, reading the minds of hose sent out to catch him and thus thwarting their plans. Karloff crouched in the shrubbery outside the bedrooms of beautiful girls, listening with his mind while the maid said good night and left the room, left the damsel alone to his sinister purposes. Karloff hid in an adjoining office in the city hall, mentally knowing the traps set for him by the police in a near-by room. Karloff did everything by mental telepathy—by reading minds. He was finally captured when the hero donned a metal helmet which cut off all thought—choked off any telltale emanations which he might vibrate—and approached the villain from behind, quietly and mentally silent.

Paul Breen rejected that last as fantastic, but the remainder of the novel idea stayed with him. He lay awake that night thinking about it, weighing it, and scrap by scrap the various unexplainable occurences

in his own life made themselves known to him.

He had got along very well with his aunt, during those years he had staved with her, because he always seemed to know in advance what she would and wouldn't like; he always seemed to know her next question and had a proper and satisfactory answer ready when she spoke. He had known a full week before her death that something was wrong with her, that something about her facial image seemed to be fading. And the teachers at school-school was a walkover because in both oral and written examinations he was ready with more information than could be found in the textbooks. Additionally, school was sometimes embarrassing in a mysterious fashion when his answers were too advanced for his grade or his age-although the teacher knew what he was talking about. The expression on the teacher's face would indicate that the very same information was on the tip of his or her tongue, but would remain there unsaid. The girl across the streetshe would have little to do with him after the first few evening dates, despite his magical connection with the theatre and free passes for herself. He anticipated the girl's wishes a little too quickly for her serenity and comfort, saw through her subterfuges and evasions. Mental telepathy.

He had picked up a working knowledge of projection equipment in

a remarkably short time, by listening carefully to the projectionist's explanations, by grasping at things implied but not said, by following the man's swift fingers as he worked with film and machinery, and by knowing just what should be done next—and then having the satisfaction of seeing the man do it.

There had been a national election the previous year; a presidential candidate was running for a third term in office, something that had never successfully been done before and something that the townspeople said would not be done successfully this time. Paul had accurately predicted to himself the outcome of that third term attempt.

But even before all that, much before . . .

The eager, teen-age desire to visit Chicago's Fair and the raising of the needed money in money-tight times. Each and every man he had approached on the subject of work needed something done. There had been occasions when the possibility of a job might be there for the asking, but for some reason he hadn't investigated, hadn't asked if a job existed. There had been no turndowns: he avoided all possibilities of a turndown and unerringly picked those who had odd jobs to offer. Two months, seven dollars and fifty cents, and the trip to the Fair. A railroad detective had approached him as he waited for a freight in the vards; Paul had known he was a detective although he couldn't recall seeing one before, had known the general tenor of the questioning . . . although that could have been easily guessed by the dialogue heard in many gangster movies. He had quickly found the black thread on which the paper clown danced, quickly found the confederate who was jiggling the thread. And he had quickly guessed the two of them were constantly alert, constantly fearful of the police. He had known the Chicago patrolman would stop and question him when he first glimpsed the officer almost a block away.

It had been amusing to watch that other usher making his slow rounds, waking the sleepers; amusing to fool the man by turning to stare at him while he was looking to see if Paul was asleep. But there had come a moment shortly afterward when the strange sense of knowing deserted him. He had lost his way after emerging from the

theatre.

Abruptly there flashed in his memory the glaring picture of a man sagging to his knees in an alleyway.

Mr. Bixby.

Bixby had never told him his name, had not spoken to him at all except for those quick, urgent warnings to get away—to run from the danger as fast as possible. But he had tarried a few moments because Bixby was a G-man and his childhood ambition, long nursed and cherished, was to become just that—a government secret agent. Bixby

suddenly represented a bond-brother, and he paused to help him. In that pausing, seeing and sensing the man's agony, he had learned without spoken words the entire momentary drama being played in the alley. Learned more-learned a fragment of Bixby's background, learned the code name Bixby habitually signed to his communications with his superiors, learned the names and the upstairs location of the men who had trapped and shot him. And then suddenly there was something else two parts of the same pattern fitting together to form a whole . . .

A blackness had seemed to settle over Bixby's face as he died, a blackness that suggested something was fading from view. A blackness that terrorized the boy. The same faint blackness that had been present about his aunt's face, the same unexplainable fading when she died.

Mental telepathy.

Paul was still awake when his bedroom window revealed the coming dawn in the eastern sky.

"You sick or something?"

"No," Paul said. "Why?"

"I heard you tossing and turning up there all night." The landlady sat across the breakfast table from him, watching him eat. "I thought maybe you was sick."

"Nothing wrong. Maybe it was too much coffee."

"You shouldn't drink coffee that late, going to bed on a coffee stomach is bad for you. You should drink milk. Now you keep that in mind."

" I will, thanks." He hesitated, unsure of himself. "What is

mental telepathy?" The landlady moved her glasses higher on the bridge of her nose and stirred sugar into her third or fourth morning cup of coffee.

" What is what?"

" Mental telepathy."

"What's that?"

"I don't know. It was in the picture last night. I thought maybe you'd know."

" Pfff-pictures ! Sickness, maybe."

"No. I don't think so. It has something to do with mindpower, controlling other people."

"Well I don't know and that's for sure. Still sounds like sickness to me; you know, sickness words. Why don't you go down to the library and see?"

"That's an idea!" He wondered why he hadn't thought of that

himself. "They must have it."

The public library was an old-fashioned, two-storey brick building, enscrolled with much useless ornamentation, pigeon droppings, and a large grey cornerstone bearing the names of every city official even remotely connected with the erection of the building: the mayor of that bygone day, the various members of the city council, the man who had donated the plot of ground, his wife in whose name it had been donated, the superintendent of parks, the superintendent of streets, the architect, the construction firm, and just incidentally the chairman of the library board.

Inside, Paul still hesitated to broach the subject; he disliked the idea of making a fool of himself if mental telepathy proved to be a fiction, a device concocted for the motion pictures. The sight of a large dictionary on a table by the librarian's desk solved his dilemma.

He opened it.

TELEPATHY (noun). The supposed communication of one mind with another at a distance by other than normal sensory means; thought transference. (Word coined about 1886 from the Greek to express power of mental communication).

Thus armed, Paul put his question to the librarian. She seemed not in the least startled nor even slightly moved by the request, but instead asked him to wait and disappeared among the shelves behind her. Several minutes later she reappeared with three dusty books in her hands and handed them over to Paul. Curiously, he turned them about to read the titles on the spines. Two were by Joseph Banks Rhine, Extra-Sensory Perception and New Frontiers of the Mind. The last was by a Dr. William Roy, Studies in Psychokinesis.

The librarian regarded him for a moment and thought to add, "I believe we have some fiction dealing with the subject. Would you like some of those?"

Paul glanced down at the volumes in his hands. "How many can

I take out at once?"

"Four." She had followed his glance. "You may keep those for two weeks, and then renew them for another two if you wish. There is a two week limit on fiction, however."

"Just one, then," Paul decided. "I'd like these three and one of

fiction." He suggested, "A new one."

He read the novel first, slowly and carefully and searching for implications concealed between the lines, read it first because it had to be returned the soonest and because it was obviously lighter reading, an easier approach to a strange and puzzling phenomenon. The Time Matters was a romantic thriller in which a man and woman practiced mental telepathy by physical contact; holding hands, a kiss, a warm embrace. When the couple were in such intimate physical contact they were able to read one another's thoughts at will, able to plumb the depths of the other's mind. When the contact was broken the thought transference ended.

But Paul had not touched Bixby, had seldom touched his aunt. When he was smaller of course he usually kissed her good night; as he grew older those kisses were reserved to those perfunctory occasions when either of them left home for a time. He could recall not thought transferences occurring between them. So the noved did not provide the answer he sought; nevertheless, still groping for what may have been hinted at but not said, he wrote a note to the author addressed in care of the publisher. The note briefly and politely asked for the author's views on the subject and did the author know of any such occurrence? He wisely said nothing about himself.

Paul next turned to the two volumes by Rhine and made the shocking discovery of himself.

Mental telepathy existed.

Several forms of the phenomenon existed, had been mathematically proven to exist in spite of the fact that it apparently violated many natural laws of science. Rhine, a parapsychologist at Duke University, through several years of experimentation had developed a system which reduced vague and haphazard results to a mathematical process based on the laws of statistics. Employing a deck of cards bearing five symbols, Rhine—with the co-operation of selected subjects—demonstrated that the degree of success in naming the correct sequence of cards was so high as to be outside the bounds of pure chance, so high as to be outside the bounds of pure chance, so high as to be outside the bounds of pure chance, so high as to be curstill the cards without seeing those symbols—and then proved his conclusion. From there, the experiments advanced bevond balving cards.

Persons seated in another room were able to know the thoughts or conversations of the experimenters; some could copy on paper a message being written by another student in a separate room, others could reproduce a symbol or rough picture by similar concentration. But in all of Rhine's experiments under the best laboratory conditions it was evident that a high degree of co-operation was necessary between the subjects, that one must concentrate while the others attempted to perceive the object under consideration.

Paul, unwittingly, had found it much easier than that. The willing concentration and co-operation on the part of the second party had never been necessary; he apparently knew their thoughts and moods.

without their being the wiser, apparently sensed their questions as they formulated them. More, he had known of the existence of things without direct mental contact—how else explain the jobs he easily

found, as a boy of thirteen seeking funds?

Another technical term opened still wider speculations: extrasensory perception, abbreviated to ESP. ESP embraced not only telepathy but other undreamed powers of the human mind: clairvoyance, precognition, telekinesis, and teleportation. The volumes of Rhine and Roy explained them all, after another quick trip to the dictionary at the library. Clairvoyance was the ability to see or know things not readily visible to the normal eve or necessarily known to the normal mind-his locating the men with work to be done, the quick absorption of projection techniques. Precognition was to know in advance of something about to occur-his realization that the Chicago usher was standing at his shoulder ready to shake him awake, the advance knowledge that the presidential candidate would win a third term. Telekinesis was the incredible power to move an inanimate object without touching it-Roy suggested that a paperweight might be pushed from the desk and caused to fall to the floor, merely by willing it to do so. Teleportation was a most startling form of transportation, moving one's self over a great distance by will power.

When the four weeks had expired, Paul returned the books to the library and attempted to purchase the volume by Roy; it was by far the most valuable to him of the three, suggesting the most astonishing theories and concepts. The librarian would have none of it, but did offer to look up the price and help him order it. She found the book to be still in print, and Paul dispatched the order. It cost him seven

dollars, but he thought the sum well spent.

Thereafter the evenings in the projection booth saw more attention devoted to the book than the film. He summoned the nerve to attempt practice of what he learned and would stand for long minutes at the tiny porthole overlooking the auditorium, staring at the backs of people's heads. Nothing happened so far as he could discern. He could not perceive their thoughts, could not guess what they might

do next. In mild despair he turned back to the book.

He was deeply engrossed in it one evening, reading through it for the second time, when the film broke in the projector with a snapping tearing sound. Paul flung the book onto the workbench and leaped for the machine to slam shut the dowser, aware of the ever-present threat of fire. He flicked off the motor switch and applied the brake, was already pulling the damaged film from the projector when he heard —or sensed—the manager rapidly climbing the stairway behind him. The man burst into the booth with the nervous stacato manner of distraught managers everywhere when a breakdown has occurred.

"What's the matter—what happened? Did the film break? Hurry up, will you—they're getting impatient. How did it happen? Can you fix it? What . . "

Paul said nothing, working rapidly, but in his annoyance with the man bit off a savage thought; Damn it, get out of here and let me alone!

He ran the film down past the break, inserted it into the machine and slipped the jagged end onto an empty reel. With one effortless motion he released the brake, started the motor and lifted the dowser to put the picture back onto the screen. Only then did he turn around. The manager was gone.

Months later he performed another act of supposed usefulness which he was later to regret, an act which for the second time in seven years was to cause considerable consternation in official Washington circles.

An impossible kind of lightning struck them twice.

Paul had since learned of the separate existences of two security bodies in the nation's capital, two separate spheres of police duties. The Secret Service, operating out of the Treasury Department, guarded the chief executive and performed other functions identified with counterfeiting, federal tax stamps, customs inspection and the like. On the other hand, the Federal Bureau of Investigation was a part of the Department of Justice and concerned itself with national criminal activities. Paul was vaguely aware of the lines of jurisdiction between the two agencies. He realized he had made a mistake in sending his Bibby letter to the White House; the Secret Service people would have opened it. It should have been addressed to the F.B.I. because Bixby had been a member of that body.

And so with startling naïveté, he wrote a second letter—this one addressed to the Bureau pointing out that his first had been misaddressed. He suggested that possibly they could recover that first letter of seven years before if such incoming mail was saved and filed at the White House. That first letter had contained information on the murder of one of their agents and would be of value to them.

Paul could be credited with a minute grain of caution: again, the didn't sign his name to the note nor give his address. As before, he wrote Bixby-twelve. The letter was written on Y.M.C.A. stationery which did not bear the name of any town or city; Paul had previously taken a supply of the letterheads for his own use. He mailed the note later on that week in Peoria, where he had gone with a couple of friends seeking a good time. And as before, the letter was well sprinkled with fingerprints. His new-found powers of clairvoyance and precognition were conspicuous by their absence.

In Washington, a Bureau official named Ray Palmer drove himself into a rage.

The receipt of the first letter seven years earlier, finding its way to him through the channels, had been enough of a jolt. Handawriting and fingerprinting systems had readily revealed the letter to be written by a child. The information supplied in the body of the letter led other agents to the upstairs room and eventually to the two gummen who had murdered Bixby. But in spite of it all, nothing led the Bureau to a child who had used the dead man's signature and who put the finger on his killers. Millions of people had passed through the gates of the Century of Progress Exposition; tens of thousands had availed themselves of the free stationery distributed by the railroad. Who remembered one child, out of thousands, asking for a letterhead and an envelope?

The receipt of the second letter after seven years was as great a jolt, It provided only one additional clue: the boy—now a young man—apparently lived in or near Peoria, Illinois. An angry Palmer flew to

Peoria to take charge of the investigation.

Paul Breen was not drafted into the army until the spring of 1945.

ending a five-year term of apprehension. With countless others he had registered on a cold-blustery October day in 1940, sitting rather stiffly and self-consciously in a chair before one of his former school-teachers, watching the woman note down the information he supplied. And then the following five years had been a bewildering shuffle through many changes of classification, until at last he found himself ticketed 1-A. In the spring of 1945, someone apparently found him file for the first time and noted that he had not yet seen service.

He was twenty-four years old and somewhat beyond the usual induction age. His services were allotted to the army. And as a matter

of routine procedure he was fingerprinted.

Ray Palmer had been impatiently awaiting just that. The odds were greatly in his favour that the induction machinery would eventually uncover the young man he wanted.

IV

1945

"Hey—Breen!"

Paul was resting on his back and staring dreamily at the barracks ceiling, his hands locked beneath his head. Now he lazily moved his head to stare across the row of cots to the door. The top sergeant stood there, breathing heavily as though he had been moving too fast.

" Maybe

for his bulk. The sergeant stood in the opened screen door, searching the room. Behind Paul, toward the rear of the barracks room a man was making a terrific, unmusical noise on a banjo and several off-key voices were attempting to follow the banjo with bellowing song. Like the man on the cot next to his. Paul had successfully ignored the noise: that other soldier was sleeping soundly and snoring loudly.

" Breen !"

"Here," Paul said, raising up on the bed, "Now what?" Behind him the sound had died away. " Roll your tail offa there and come on !"

"This is Sunday," Paul protested.

"I don't give a damn what day it is-get up and trot !"

"Go on, Breen," somebody called out from behind him.

the general wants to give va' another merit badge." "Naw," a second voice objected. "This is important this time. G-2's found a Japanese map and nobody can read it except the Emperor and Breen."

"Knock it off !" the sergeant roared.

Paul sat up to stare at the man in the doorway. He closed his eyes for a moment, as if fighting away sleep or a sudden pain, and then began to put his shoes on. The topkick seemed in a devil of a hurry and had come on orders of the captain. The captain had been emphatic. Paul bit his lower lip with the sudden awareness that something unpleasant was coming. He put his tie around his neck and tied it. The sergeant was leaning against the doorframe, waiting with obvious impatience.

They went out into the company street, and the noise again welled

up behind them.

"What's up?" Breen asked.

The noncom looked at him curiously. "Don't you know?" Paul shook his head. "I haven't put in for anything." He realized

that the sergeant didn't know the reason for the summons either.

"Just between you and me, soldier, the Old Man's been keeping his eye on you anyway. Maybe because you didn't put in."

By the spring of 1945, Paul knew enough about himself to keep his mouth shut and his faculties concealed. He was aware, through the books of Rhine and Roy and by studying those around him, that talents such as his were not given to other men, were only now budding in the blind and groping minds of those experimenters in the parapsychology laboratories. Upon his induction into the army, he had discovered himself building up extraordinarily high scores in the intelligence and aptitude tests-not because he was of superior intelligence, but because he was absently picking the minds of those about

him, unthinkingly ferreting out the proper answers to the tests. Paul saw what he was doing, saw that the officer in charge was talking about his scoring, and slacked off. He had no wish to call attention to himself.

In camp he struggled not to repeat the earlier episode in the projection booth—that of knowing too much too early, of knowing before he could be normally expected to learn. Despite his precautions, the training sergeant had picked him out one day.

"You been in the army before, buster?"

Paul told him he had not and realized that the man didn't fully believe him. After that he redoubled his guard, but it was difficult not to do what the sergeant thought he should be doing. At first it had been awkward and arduous to distinguish the unspoken thought from the spoken word, to determine which was the mental propellent behind the barked order and the oral order itself. Later he learned the fine distinction between thought and word, thought and deed by careful observation and analysis. The mental thought always preceded the word, the propellent always stimulated the vocalization, regardless of the time lapse between the two. It was very much like hearing the same things said twice for his benefit alone; he had only to remember not to act the first time it was relayed to him. Always to wait for the second and slower command.

With some of the trainers that had proven easy; their thought patterns were sluggish and lazy in stimulating the vocal chords, but in combat veterans freshly back from the war theatres the reverse was true. The double commands were snapped with hairline triggering, the shouted word following the shouted thought by no more than a millisecond, the two almost blending into one. Under them, Paul had made less mistakes because there was so little need to distinguish the mental from the spoken command, and because they on their part thought and acted so quickly they did not notice Paul sometimes obeying the thought rather than the word. But with the other kind of man found in the army, the unhurried thinker, he learned to watch

his movements.

The top sergeant pushed open the door and walked into the orderly room, Paul following. The room was empty. Paul waited while the sergeant knocked on the inner door, and the double thought-voice of the captain was heard.

"Come in, come in."

The sergeant opened the door. "Private Breen, sir." He moved aside to let Paul in and then closed the door.

Paul looked first to the company commander, Captain Evans, and learned next to nothing; the man was highly curious at this new turn of affairs and was eagerly looking forward to the interview, but as yet knew little. Eagerly looking forward to the interview! Paul switched his glance to the two civilians sitting in the office and in the following second received a double shock-the most startling of his life because they bordered on shocks of fear. The two in civilian clothes were calmly staring at him.

Ray Palmer of the F.B.I., and Peter Conklin of the C.I.C.

Captain Evans leaned forward, indicating a chair, "Sit down, Breen. These gentlemen want to talk to vou."

"Yes, sir."

Paul sat down, struggling to control his growing nervousness and struggling to prevent that emotion from showing. He waited stiffly in the chair, knowing what was coming, knowing that two letters and eleven years had finally caught up with him. He realized, too, what had trapped him. The fingerprints on the letters and those taken at the induction centre. As he waited, trying not to squirm under their scrutiny, he saw one thing more. They were not aware of him. of what he was. They were still wondering how he did it.

Palmer spoke first, a slow, almost drawling speech that suggested a patient, kindly man with all the time in the world. Only the agility

of his mind betrayed the camouflage.

" Breen, we've been interested in you."

"Yes, sir."

"Interested in your army record, really. A most remarkable record, wouldn't you sav?"

"In what way, sir?"

"Well now, let's consider those intelligence and aptitude tests first of all." Palmer was slow, unhurried. "You should be proud of your scoring." "Yes, sir."

"Well, aren't you?"

"I don't think they were particularly high, sir." "But they could have been," Palmer pointed out,

Paul said nothing to that.

"I think they could have been much higher, don't you?" He paused to see if Paul might agree. "A pity that they fell off, just as they did."

"I didn't know anything about newspaper procedure, sir. Mats, logos and hellboxes-things like that,"

"You went along very well on the remainder."

"I've done a lot of reading, sir. And I've worked on projection machinery and an old car I had."

"Get around a lot in that car? Did you go out and have a good

time on Saturday nights?"

"Yes, sir."

"Ever been to Peoria?"

"Yes, sir, several times."

"And Chicago?"

"A few times. Not many."
"Did you go up to see the Fair?"

"Yes, sir." It was coming closer.

"Enjoy it?"

"Very much, yes, sir. I stayed two or three days."

"I was there too," Palmer said. "Let's see, you must have been about twelve or thirteen then."

"Thirteen." Any moment now.

"With your folks? Your aunt perhaps?"

"No, sir. I went alone. I saved up the money."

"All alone in Chicago? And only thirteen?"

"I wasn't frightened, if that's what you mean."

Palmer nodded. "No, I don't imagine you frighten easily." He pursed his lips, giving the impression that he didn't know what to say next, that he was groping around. That too was false. "Gangsters didn't frighten you, did they?"

Paul blinked at him. "Yes, sir, they did."

"Oh? Did they threaten you?"
"No, sir. But I was scared all the same."

Palmer studied him. "What did you do?"

"I ran away. Back to the hotel."

" Why?"

"Because I was scared . . . and . . . "

" And?" he invited.

"And because Mr. Bixby told me to run."

Palmer nodded to himself. "Bixby told you to run. Well now,

that's sensible. What else did he tell you?"

That was it. From this point onward he could move in one of two directions. He could tell them the truth and ride it wherever it might carry him—or he could lie, and hope with further lies to find a way out of explaining the entire situation. Already he saw a vague picture of where the truth might take him, saw a solidified kind of future looming up on the periphery of his mind. He saw too that he had already hesitated in answering the question, and the hesitation had been noticed. Paul decided to tell them the truth and let the consequences come as they may.

"Nothing," he said in answer to the last question.

Palmer looked through him. "Bixby told you nothing else? Only to run away?"

"That's all, sir."

There was a long moment's silence. Captain Evans was frankly eager for the conversation to continue; he was enjoying it and he fancied he was learning great things. Not every day did the F.B.l. and the C.I.C. descend upon your office to quiz one of your men. He always thought there was something queer about Private Breen.

Paul flicked him a quick glance, hiding a smile.

He looked back to find both civilians studying him. He was becoming used to Palmer, to his quick mind and his slow speech, but the silent Conklin tended to make him nervous. As yet there was no way to know how Conklin's mind and tongue co-operated in action. His thinking was sharp, razor sharp, and he had already formulated a working theory—Paul sucked in his breath, astonished at the near accuracy of the theory! He stared at Conklin, conscious of the man's potentiality: he had best watch the C.I.C. agent.

Paul realized that Palmer had briefed Conklin in advance, had filled in his background; he knew that the two of them had gone over his army record together and arrived at the same general conclusions together. But he saw now that Conklin was far ahead of Palmer in theorizing; where the F.B.I. man still didn't know the Chicago answers, Conklin was already making shrewd guesses. Paul considered that difference for a moment, and then did something he had very rarely done in his life. He cently probed into Conklin's mind to see why

he was theorizing.

Conklin knew about the book !

He knew about the battered copy of Roy's Studies in Psychokinesis which he still had, tucked away in his footlocker. The C.I.C. agent then had been peering around, had come prepared to this Sunday afternoon meeting. And so—he was theorizing. He didn't believe yet, he refused to allow his orderly mind to admit the possibility that Paul Breen was a telepath. But that old book certainly supersed to.

Paul found one other thing. Conklin had no intention of telling Palmer of the book or his theories. Whether much or little came of

it, it would remain C.I.C. property alone.

That's what he thought! Paul was suddenly glad he'd decided to tell them the truth. Both of them.

tell them the truth. Both of them.

Ray Palmer cleared his throat and continued talking in his easy unhurried drawl. "I'd like to hear about Chicago, about Bixby and

those gangsters."

Paul gave him a frank glance. "I've already told you most of it."

He found no visible reaction to that, but the man's thoughts leaped—

This soldier knew who he was!

"Tell me again," Palmer suggested.

"I was wandering around the streets pretty late at night-lost. I couldn't find my way back to the hotel. I turned a corner and saw Mr. Bixby in the alley: he was on his knees, and had been shot by two men who were hiding in an upstairs window across the street. I stopped to help him, and he told me to run. I waited a minute longer and did run. Somebody showed me the way back to the hotel. And the next day at the Fair I sent the letter to tell you about it." He paused and almost smiled at the memory. "Only I didn't know where to send it."

"Jehoshaphat!" the captain burst out. "All that at thirteen?"

The C.I.C. agent silenced him with a glance.

"I'm surprised," Palmer said mildly. " Sir?"

"That you didn't know where to send the letter. Apparently you knew everything else: Bixby's name and code he used as a signature, the names of the men who shot him, where they were hiding. I'm surprised you didn't know where to send that letter."

"Mr. Bixby didn't tell me that, sir."

Palmer's eyes were quickly bright, stabbing into his. "You said that Bixby didn't tell you any of this." " No, sir, he didn't."

Palmer made a gesture of impatience. "Then how in the world did you find out?"

Paul glanced cautiously at the three of them, at the captain hanging on his every word, at the puzzled and now angry Palmer, at the silent

C.I.C. agent whose mind was on the brink of a dazzling leap. "I read his thoughts. Mr. Palmer."

Stillness. No physical movement, but . . . Paul sensed a change in the room, a subtle change on the part of one man. Conklin was regarding him stolidly, unblinking. Palmer was of the same mind and attitude as before, except for an increase in his anger. Evans decided the man was lying.

The F.B.I. agent said carefully, slowly, "No one has been intro-

duced to you. Breen. How did you know my name?" Paul answered him but he was looking at Conklin as he spoke. " I

read yours, too."

None of those four ever forgot the tableau in the captain's office: not the captain, not even when he was eventually shifted to a godforsaken outpost on Kwaialein to get rid of him, not Palmer, not to the day he peacefully died in bed with his shoes off, not Conklin, not to that very moment a sentry's bullet cut him down somewhere in the heart of Russia. Paul Breen never forgot it as he sat a prisoner on the

third floor of the Maryland mansion, watching a succession of sunsets. His candid admission was the turning point in their four lives.

Evans snapped, "Now see here, Breen-"

Peter Conklin silenced the man a second time.

Palmer was on his feet, peering at him. "Are you trying to be funny.son?"

"No. sir."

"Why do you say a thing like that?"

" Because it's true."

"I'm disappointed in you, Breen."
Paul looked up into his face and said quietly, "Shall I tell you what
you're thinking. Mr. Palmer?"

"I think you're making a fool of yourself."

"Yes, sir, you do, and you also think I'm lying, but you can't understand why I should be lying. At first you believed that I might be related in some way to the two gummen and turned them in to collect a reward, but later evidence caused you to discard that belief. Then you thought that perhaps Bixby had told me the situation and given en instructions, only to discard that too when you realized Bixby couldn't or wouldn't do it. Finally you admitted that you simply didn't understand it at all and asked your superior officer to be relieved. He refused and assigned you to the case for as long as it remained in the open file.

"Sir, you have a wife forty-six years old, who scolds you because you don't change your socks often enough to please her; you have twin daughters who are twenty, and one of them is married to a man who continually pesters you to find him a job with the Bureau. Your private opinion of the man is that he couldn't fill a job digging ditches. You suffer from arthritis in the left knee and also have a large permanent blister on that heel; on bad days your limp is most pronounced and very annoying to you. You fear that the Bureau may retire you before

the time-

Palmer shouted at him. "Stop !"

"Yes, sir."

Palmer backed away from him and sat down, eyeing Paul as he would an untamed beast caught in a rickety cage. He said nothing, sitting straight and strained in the stiff-backed office chair, breathing heavily.

Captain Evans was staring at the two of them, desperately attempting to believe what his eyes and ears had just reported, shoving away for the moment the nagging doubt in his mind that such a thing couldn't be true.

"Breen," he said, and looked around quickly to see if the C.I.C.

agent intended to silence him a third time, "Breen, is that true? Can you really do that?"

Paul turned to the captain.

"Yes, sir, I'm afraid I can."

"Now see here, you aren't attempting a leg-pull to get yourself out of a had fix?"

"Sir, shall I tell you about the fifteen tons of coal that were diverted to a relative's house? Or what Lieutenant Miller's wife said to you the night she found you in her kitchen? The WAC detachment posted a-"

"That will be all, Breen," the captain said evenly. His face was an emotionless mask.

"Yes, sir."

The silence descended on them again. Paul glanced around, quite uncomfortable to be the target of their eyes, and found each of the three studying him, weighing him and not liking what they saw. He found speculation, anger and open hatred. His gaze finally settled on Peter Conklin who was watching him with speculation-and nothing else. Like the two others, Conklin didn't approve of the revelation, but there was no anger or hatred in his mind. The C.I.C. agent still sat in the position he had maintained throughout the interview, the tips of his fingers placed together and coming to a point beneath his chin. He had seldom moved and had not spoken a word since Breen entered the door.

Paul returned his stare.

Conklin spoke suddenly. There was neither friendliness nor hostility in his voice. "You need not prove yourself to me, Mr. Breen. I require no personal demonstration, and I do not care to have my mental privacies paraded for view. Instead, let me say that until I find evidence to the contrary, I shall believe you." Paul smiled at him. "Yes, sir."

"How long has this been going on?" There were no particular tonal qualities to Conklin's voice; like the man himself and his mode of dress, there was nothing to cause him to stand out in a crowd.

"All my life I suppose, sir, I wasn't aware of it until I was thirteen -that night in Chicago."

"Who else knows of it?"

"No one, sir. I didn't want to talk about it."

"I commend you. Do you realize what it will mean?"

"How do you mean, sir?"

"Never mind: I see that you haven't. We have something of a problem here.'

Paul said nothing. Palmer turned in his chair to speak to Conklin

and there was a new note in his voice.

"What are you getting at?"

"Mr. Breen's peculiar talent must not continue to be wasted here."

Palmer stared at the agent. "Mr. Breen?"

Conklin nodded. "Are you not yet aware of a change in relative values? Of a bizarre shift of command in view of that particular talent?' "Well . . ." Palmer hesitated. "I guess he can't stay here on the post."

Conklin allowed himself only the briefest of glances at the captain,

" Obviously."

"What are you going to do with him?" " Washington."

"Washington?" Palmer considered that. "Your outfit or mine?"

" Mine." "Well now, I don't know. He's been our problem for the last

eleven years." "He is in uniform now." Conklin inspected the summer tans Paul

was wearing. "Our jurisdiction."

Palmer shook his head. "That won't set so well, I'm thinking.

The office will raise hell." "Let them take it to the top. I'm going to claim jurisdiction until

he's taken away from me." He turned quickly to Paul. "With your permission, Mr. Breen."

"Permission!" Captain Evans displayed the shock. "He's an enlisted man."

Conklin tapped the tips of his fingers on his chin, the briefest trace of a mocking smile on his lips, "I'm afraid you aren't an overly imaginative man, Captain. Whether we approve or not, a change in status occurred a few moments ago." He was still looking at Paul. "There remains in my mind some doubt as to who is the actual master

here." " Are you serious, sir?"

"I am. I believe our present situation to be analogous to that of the Neanderthal and the Cro-Magnon. I am trying to avoid a similar mistake." He turned back to Paul. "Mr. Breen, I would like you to return to Washington with me. I want to present you to my superior officers."

Paul said, "Yes, sir."

Captain Evans cut in. "See here, I can put through orders transferring him to Washington. I can arrange the transportation and" He stopped talking, taken aback at the expression on Conklin's

"You will be kind enough to arrange the transportation, Captain. On tonight's train, if it can be managed. Secure a double bedroom or a drawing room. Will you look after it now?"

Evans was on his feet and moving toward the door. "At once, sir."

" And, Captain . . ."

"Yes, sir?"

"Not one word of what has transpired here is to pass your lips. You are not to mention the subject even to your wife." Again the agent's grim expression underlined his words.

Evans said quietly, "Yes, sir," and went out. After a moment the

outer door opened and closed.

The old stillness settled over the room. Paul found the two agents continually sutching, probing, guessing, and to be the object of their steady scrutiny was vastly uncomfortable. Doubly uncomfortable, for behind their piercing eyes their minds were repeating the examination of him; their thoughts clearly said what their eyes could not and their lips would not. In varying degrees they accepted him for what he was, and yet they had not time to learn that all their thoughts were open to him. They would not or oould not say what they were thinking, still not fully realizing that they may as well say it.

Paul saw something in Conklin's mind and was on the verge of speaking, when caution gripped him. If he had used caution he wouldn't now be in this position—and although it might be a late time to start, still it was a beginning. So he held his silence, saying nothing, confident that Conklin would voice that thought sooner or later.

It came almost at once.

"Mr. Breen, I can't help feeling sorry for you."

Paul knew why, but for the sake of pretense and to spare the man's

feelings, he asked, "Why, sir?"

"Because your captain inadvertently gave you a taste of what is to come. Because in the eyes of those who will know you, you are going to be the most hated man in the world. I'm sorry for you, Mr. Breen. It is an unenviable position."

V.

The train moved eastward through the cloudy night, stopping seldom, whisting often, and intermittently throwing long streamers of fiery soot and smoke back along the cars and the right-of-way. Paul sat with his chin in his hand and his forehead pressed against the window, watching the dark and back-rushing country. Little towns rocketed by, no more than minute clusters of dull light around a station

or an express office, and sometimes there were other thin strings of lights reaching away into the blackness. When the train speed across a highway there would be flashing red warnings that momentarily lit up the interior of the bedroom, turning his face a dull crimson. Occasionally a pair of headlights, yellow-white by comparison, would be waiting on the highway and their flaring cones would illuminate the room, streak across the face against the window.

Ray Palmer slept soundly in the topmost Pullman bed on the other side of the room, enjoying his dreams. Below him, Peter Conklin reclined on the lower bed, but he was not asleep. The degree of mental activity exuding from the two agents was marked; it revealed the difference between a state of sleep and one of wakeful awareness. Conklin was worried, fascinated and repelled by turns; he was in a feverish state of mind—speculating, calculating, planning. Belatedly he was becoming aware of the fabulous treasure he had uncovered, of

the full and invaluable richness of it.

With Breen at his side he could walk through the streets of Washington or New York, searching out those aliens now in this country bent on sabotage. He could go through the workshops and laboratories of hundreds of factories and secret experimenting centres, fingering the traitors, the malingerers, the enemies. He could stand in the customs sheds, catching them as they left their ships; he could wait at the airports, arresting them as they disembarked. With Breen he could move among the crowds still attending the gala Washington social events, picking out the foreigners and the pseudo friends intent on harming the nation, discovering the embassy personnel who were actually undercover agents. And if they'd only let him take Breen to London. . . !

The car wheels rumbled hollowly across a bridge.

Conklin rolled over on his side and found Paul's brooding silhouette against the window.

"Can't sleep?"

"No, sir."
"Neither can I. Upset by all this?"

"Some—yes, sir. I keep thinking."

"I believe I know what you mean." Conklin peered through the window. "Where are we, do you know?"

"Indiana, I think. We're going too fast to read the signs. I saw

Vincennes a long way back there."

The three of them had left the military post in an uncomfortable silence, late that afternoon. Captain Evans had provided a staff car and the driver; he wasn't sorry to see them go. After several hours of almost unbroken silence (of silence to all but Paul), the driver had delivered them to the Union Station in Saint Louis, and they sat down

to await the opening of the train. Departure time was near midnight. They boarded the train and Palmer asked the porter to make up three of the beds; he was in the upper bed and falling asleep before they pulled out of the station. After a while Conkin locked the door, partially undressed and stretched out on the lower. Paul seated himself on the foot of his bed, watching their train snake its way through the cluttered yards and along the riverbank to the open country. He was still there hours later, face to the glass.

There had been some relief when Palmer fell asleep; at least the agent stopped thinking about him, dissecting him. But he was sorely puzzled by some of the strange things the man in the lower bed was mulling—why, for instance, should Conklin wish he had been found some months earlier? What difference did it make when he was discovered—in April or early May before Germany's surrender, or now in the middle of Iulv? Paul could discern no good reason for the

concern.

"Will you tell me something?" he asked suddenly.

Conklin seemed startled, wondering why he should ask. "Certainly, If I can."

"I didn't understand your remark about Neanderthals. Will you explain that?"

"I'd be glad to. Are you at all familiar with the subject?"
Paul nodded hesitantly. "I seem to remember reading something

about it-or them, in school, but it's rather hazy now. Ape men, I think"

"Homo neanderthalensis," Conklin supplied. "They were a race of almost-men, prehistoric cave dwellers who lived in Europe tens of thousands of years ago. Commonly agreed upon as our Paleolithic ancestors. They came just before modern man, gave way to modern man." (Paul caught a sudden, unhappy thought-picture). "The Cro-Magnon was the beginning of today's modern man; they were atlal and straight race of people where the Neanderthal was bent or stooped. There is a school of thought which holds that the Neanderhal and the Cro-Magnon cultures overlapped briefly, violently. One must spring from the other of course, but this particular school believes the overlapping and the subsequent cleaving were violent. Extremely violent. In short, that the two fought each other and the newer Cro-Magnon willed off the Neanderthal."

Paul sat still, saying nothing, learning much more than Conklin put

into words.

" If this theory is true, it may well be understood. The Neanderthal would be envious, jealous of the better man living alongside him. And that other man would likely be contemptuous of the clumsy beast who shared his world. Envy and jealousy readily become hate. The Neanderthal would find himself outwitted in every contest and perhaps actually going hungry because of the other's superior hunting skill. He had brute strength, but that is poor match for wits, skill and knowledge. He lost. The Cro-Magnon replaced him on earth and he vanished—utterly.

"I regard that replacement as natural, for had it not occurred perhaps we wouldn't be here today and something else would be in our place. I believe that natural scientific laws govern the universe and all within it, and that evolution is inevitable. What we understand, we label. What we half understand or do not understand at all, we call 'Mother Nature' and try to accept it. Mother Nature arranged for the superior Cro-Magnon to replace the stumbling Neanderthal, and so we evolved, the human race today. I'm sure you follow me."

"Yes, sir, That's why Captain Evans disliked me."

"Hated you would be more correct. I doubt that I could explain to him what I have just explained to you, but the parallel is obvious. Will you forgive me a frankness . . . ?"

" Of course."

"Thank you. Unless you are an accidental freak, I suspect your appearance here is but a hint of things to come. I am afraid the earth is about to witness still another struggle between the old and the new, between common man and advanced man. It isn't a happy prospect,"
"But, Mr. Conklin, I don't intend—"

"But, Mr. Conklin, I don't intend—"
"No, perhaps not," Conklin agreed. "Not now, not yet. But do
we know what ten or twenty years will bring? Do we know that you

are the only one?"

Paul had never considered that. The possibility that there might

be others like him was stunning.

"I only wish you were more mature," the C.I.C. agent went on.
"I am aware that you consider twenty-four to be a ripe old age; I
thought the same when I was twenty-four. But I fear that you lack
that maturity to grasp all this, that you lack the reasoning ability to
see where it may lead. Still with frankness, I believe that an older
man in your place would never have permitted his discovery.

"But I'd like to help," Paul declared.

"Help what?" Conklin asked flatly.

Paul gestured, then wisely said nothing.

Ragged strings of weak light sprang up about them, and poor houses that habitually haunt the outskirts of any city along the railroad rightof-way. The scene gave way to rainswept streets and a greater concentration of light, and then the cloudy sky reflected the neon glow of the city. The train slowed and at brillianty illuminated street crossings Paul could see the rain falling, could see the madly swinging windshield wipers on the waiting automobiles. The red lights flashed in his face. His window was on the lee side of the car and dry. Far away he caught a glimpse of another river and then the train was picking its careful way through the railyards, through a maze of freight cars and chuering switch engines and men with lanterns.

Up ahead the station revealed itself through the curtain of rain, high up. The locomotive slid into a murky tunnel beneath it and the cars came to a squeaking halt alongside a trainshed which captured the sound of the rain on a tin roof. Conklin raised up to peer out the

window.

"Cincinnati," he said. He reached for the porter's bell, touched it. After a few moments that man knocked on the bedroom door and Conklin got up to unlock it, open it. "Get me a late paper if you can, please?"

Paul saw the porter come down the steps of their car and move along the platform. Without taking his eyes from the outside scene, he

asked, "Do you think I'm going to have trouble?"
"Yes, frankly I do."

"But why?" Why should anyone make trouble for him?

"Mr. Breen . . . let us suppose there was but one known Cro-Magnon in all the world. Let us further suppose the Neanderthal leaders discovered that man, captured him, tied him with a rope and put his wits and skills to work for them. Nothing but trouble can come from such a situation.

"I suppose so, but I don't want to make trouble."

"Not now, not yet," Conklin repeated. "You will find Washington full of men like Captain Evans; big men, little men, many of them with intolerance and hate in their minds. Those few who will come to know you, will use you—and using you, hate you. That, too, disturbs me."

Paul turned from the window to stare curiously at the agent lying on the bed. He had discovered something about the man, something not shared with the F.B.I. operative now asleep in the upper bed. They regarded each other for long moments, oblivious of the outside sounds seepine into the room. In the semidarkness Paul smiled.

"You don't hate me."

"I do not," Conklin replied instantly, "At this moment I neither like nor dislike you; I am neutral. I hope that I will not see fit to change my mind in the future. I cannot like you because you are alien to me." Unexpectedly he returned the smile. "But no . . . I do not hate you." And then he added, "I hope that I never will."

The agent was frightened ofthim, Paul realized. It was no more than

a small fright at the moment because the fantastic situation was new and unplumbed, had only taken root that afternoon in the captain's office. To Paul's unhappiness, he saw the fright growing with each passing hour. The longer Conklin discussed him and his special problem in his mind, the more frightening the predicament appeared. As vet, he saw Paul only as an invincible, invisible finger man-someone who might walk the streets with him, pointing out the enemies of the department and the nation, someone who could unerringly ferret out those who did not belong. But in the man's subconscious there was another and greater fear which had not yet forced its way to the surface; Paul could know the minds of friends as well as enemies. If he could stand in a ballroom and expose the undercover activities of an embassy hireling, he could also walk through the offices of the War Department and know the most cherished secrets of a wartime world. That was lurking in Conklin's subconsciousness and would make itself known before long. And the fear would grow.

The train began to move.

Paul looked to the door. "Your paper's coming."

Conklin only glanced at him and waited for the knock. He lay back on the bed with the paper, after again locking the door, and turned on the small reading light.

"Another one of those conferences," he said after a glance at the headline. "Truman, Churchill and Stalin. At Potsdam this time. Let's hope something good comes of it. This war has been going on

much too long !"

Paul favoured him with a curious, sidelong scrutiny. He parted his lips to speak and then stopped himself. Conklin's feelings toward him at the present time were neutral; he said so, and he believed so. There was little point in causing that neutrality to develop into an active dislike or open hatred, through mistakes on his part. To speak his mind now would be a mistake. To speak either of their minds ! The information in the paper wasn't news to Conklin; he had known before leaving Washington that the president was away on another mission. had known most of the advanced details. The headline only served to remind him of the facts he already knew. Paul seized that knowledge from him while he was reading the headline and the subheads above the body of the story. And, he noted now, Conklin didn't bother to follow down the page, didn't read the news story itself.

Instead, he asked, "Can I have the sports?"

Conklin pulled the section from the paper and flipped it across the room to him. Paul snapped on a second light and fingered through the pages. With an effort, he prevented himself from looking up at

the F.B.I. agent.

"All right, dammit," Palmer said, leaning over the edge of the bed, "if we're going to stay awake all night I might as well join you." He snapped his fingers at Conklin. "Give me the comics."

Conklin seemed surprise to find him awake.

They went to the dining car for breakfast together. Paul had been the first to awaken, pulled from his sleep by the now-absent reveille which continued to dominate his habits. He tarried a moment on the edge of the bed, studying the two sleeping agents, and then he felt through his bag for the shaving equipment. The sound of running water awoke Conklin. Paul did not turn from the mirror or speak; he knew the man was lying on the bed watching him, speculating anew, and to greet him without first turning to see him awake would be another mistake. He wanted to avoid mistakes with Conklin at all costs; Conklin at least was a neutral friend, while the older Palmer was not. The had already lost Palmer, lost him vesterday aftermoon in the office.

Stinging lesson: keep silent.

Conklin rolled out of bed and said good morning, and then he reached up to wake Palmer. Paul glanced listlessly through last night's paper while they shaved and dressed. And the three of them went to breakfast.

"What would you like?" Conklin asked him. "Hungry? Order anything you want, anything at all."

"I don't have much money on me."

"You don't need it. I'm paying the bills." He humorously nudged Palmer in the ribs. "Even yours."

"You can afford it," Palmer returned sourly. "You've got the prize."

Paul saw no more than the sharp, warning look Conklin gave the other agent, but he caught the wince in Palmer's mind as Conklin kicked him under the table. He ignored both of them and ordered

a meal.

As he was eating he found himself absently listening, listening to both the words and thoughts of those about him in the car. That too was a habit, one that had caused him some faint shame when he discovered himself first doing it, because he felt as though he were prying into places where he didn't belong. The shame wore away when he realized that he could no more shut out those stray wisps of thought than he could block off the spoken sounds reaching his ears. Sound could be closed out if he put his fingers to his ears, but the thoughts could not. And so it had become a detached thing; a mixture of thought and voice picked up from nowhere as he was working, drilling, loafing, reading. He would come out of some introspection to find the man next to him speaking or thinking, he would hear a few words or sentences or trains of thought, and then the pattern would be broken off

as he moved on to something else.

Now, at the breakfast table, Palmer was poking a fork among the eggs on his plate and wondering aloud if they were fresh. To himself, he was saying that no one could fry eggs the way his wife did, and the prices on dining cars were terrible. Conklin was absently eating and looking out of the window. His thoughts were a continuation of the feverish planning of the night before, but his only words were a remark on the coming heat of the day and a superfluous reminder that Washington in July was intolerable.

Paul let his gaze drift about the diner.

A very pretty young woman caught his attention, a woman smartly dressed and made up, and he saw that most of the other men in the car were likewise enjoying her beauty. An older man sat beside her, a man he at first supposed to be her father until he caught the random, casual thoughts of both. Both in their way were thinking of the night just past. He was not her father. Paul hesitated only a moment longer, staring at the girl with surprise until she happened to glance up and catch his eye. In her mind she instantly replaced the older man with Paul, and Paul let his gaze slide past her. He was facing the greater length of the car with only a few of the corner tables at his back. A man and his wife were going to Washington to see . . . to see what? The president. They were going to see the president because their oldest son was in a prisoner-of-war camp and now their voungest son had received his draft notice. (But didn't they know he was now in Potsdam?) Two salesmen were comparing routes and goods; one sold books, the other a line of meats. Books was complaining that the other had it lucky-people always ate. Line of meats countered that he had to pay three dollars to read a snappy one, whereas the other got to read them all free. Books closed that subject by declaring he had never read a book in his life, he only sold them. But his mind admitted it was a boastful lie-he did read them whenever he stopped overnight in a town lacking a decent picture or a burlesque theatre. A heavy-set and scowling man sat alone at a far table, dividing his attention between the pretty girl and the trio at Paul's table. The unpleasant fellow seemed vaguely reminiscent of one or two overbearing army sergeants Paul had known, and he stared at Paul and at his uniform with some distaste. In the next moment Paul discovered why. The man had been a sergeant, had only recently doffed his uniform and the mere sight of another caused a welling resentment in his mind. Paul could easily understand that and even sympathize with the view; he had yet to meet a man in the ranks who

liked it, who wasn't eagerly looking forward to his own day of separation. The former noncom let his eyes and wishes roam over the figure of the girl, and then he turned once more to Paul and the two cops.

Cops! With a start, Paul stared at Conklin.

Conklin asked, "What's the matter?"

"He knows you're policemen; both of you."

Conklin frowned across the table, searching Paul's face, but he did not turn to inspect the car. Palmer began a turning motion in his chair, but stopped himself before the movement could be noticed. "Who does?" he demanded.

"That fellow sitting down there—looks like he's mad at the world."
Paul inclined his head toward the other end of the diner. "He's an

ex-sergeant; just got out, I think."

Conklin was watching Paul closely and with growing fascination.

"How does he know?"

Paul didn't answer for several seconds, and then, "I don't knowreally. He just seemed to recognize the two of you by looking at you. Not you, but what you are. He's been around you before—he's familiar with security agents. He recognized you from past association with others." Paul stopped again, then smiled. "He thinks you've arrested me."

"Why does he think that?"

"Just suspicion—suspicion of the two of you. He doesn't know why I'm 'arrested'; he just thinks that."

Conklin nodded with an inner satisfaction that wasn't lost on Paul. "Describe him, please."

Paul did so, taking care not to let the ex-sergeant catch him staring.

Palmer then asked which table he occupied and Paul told him.

"Is he looking this way now?"

" No, sir."

Palmer casually turned and called the waiter. After a moment he said, "I don't know him." The waiter stopped by their table and received a request for more coffee. As he left, Conklin looked after him.

"Nor I," he said a moment later. He faced Paul. "What's he doing now?"

"Ogling that good-looking girl across the aisle."

"No change in his suspicions?"

" No, sir."

Conklin returned to his meal, "Odd,"

"He's probably been working around you fellows," Palmer suggested. "You've been in his hair."

" I suppose so."

The elderly couple on their way to Washington got up from the table and left the car. Paul silently wished them luck, knowing all the time how futile their trip was. The two salesmen argued on and on while their waiter stood by patiently, waiting to clear the table. The girl and the man who was not her father were getting off at Harpers Ferry, where he had a hunting lodge up in the mountains. She had only two weeks vacation, but was expecting to stretch that into three or four. Occasionally her eye would light on one or another of the various men in the car, and briefly she would wish that man were going to the lodge with her. Four government clerks entered the diner all talking at once, and the former sergeant fell to watching them.

Paul said, "What's-" and then stopped himself. Conklin turned from the window. "Yes?"

"Not now, sir. Too many people around."

"All right, I'm finished. Shall we go back?"

"Yes, sir." He pushed back his chair and stood up, conscious that

several eyes were on his uniform and that the heavy-set man at the far end of the car was studying them again. He walked out without looking back.

In their bedroom, he sat down and watched Conklin lock the door,

That had become a ritual.

Palmer took off his coat and hung it up, revealing a shoulder holster which he now shifted to a more comfortable position. Paul glanced at the holster and said nothing. Last night Palmer had slept with his gun under his pillow, while Conklin had hung his over a hanger with his coat.

Conklin said, "Want anything?"

"No, sir." He inspected the passing scenery and then turned back to the C.I.C. agent. "Well-yes, sir. Do you suppose I can have my civvies when we get to Washington?"

"I can't promise that, but I see no reason why not. I'll request them."

"I'd appreciate that. I don't suppose I'm out of the army?"

"I doubt it. But perhaps you would be more comfortable without the uniform."

"Thanks."

"You started to ask something in the diner," Conklin reminded him, "Something you didn't want to mention in a crowd,"

Paul nodded. "What's an atomic bomb?"

He had his answer instantly, if it was an answer, but he waited for Conklin to speak. Conklin hesitated, turning the phrase over in his mind.

"I don't honestly know. Where did you pick that up?"

"The sergeant back there."

"An atomic bomb . . . I've never heard of it. But the name itself certainly suggests a frightful train of thought. I rather imagine it to be some new weapon the laboratory people have produced. But an atomic bomb! "Conklin reverted to his old pose of the tipped fingers beneath his chin. "And that man was thinking about it? Did he know what it was?"

"No, sir. Not what it was, but he knew about it." Paul glanced absently at the closed door as someone passed by outside. "I thought

you might know: that's why I asked.'

"I don't," Conklin shook his head in puzzlement. "But I should like to. My imagination is worrying me."

"I told you!" Palmer broke in. "The sergeant has been working

around you fellows somewhere."

The train paused briefly at Harpers Ferry, and Conklin gave the porter a telegram to file for him. Far down the platform Paul could see the young lady and her gentleman friend among the small crowd of people leaving the train.

A car was waiting for them at Washington's Union Station. Paul twisted around in the seat to stare at the Capitol building. The first view of it coming out of the station doorway had been a breathtaking

surprise.

To be continued

Here is another delightful story by Robert Sheckley who has rapidly reached prominence in his own country through consistently good stories. A collected edition of his works has just been published by Ballantyne in New York and he has obbeared in almost every recent major American antholory.

THE LAST WEAPON

By Robert Sheckley

Edsel was in a murderous mood. He, Parke, and Faxon had spent three weeks in this part of the deadlands, breaking into every mound they came across, not finding anything, and moving on to the next. The swift Martian summer was passing and each day became a little colder. Each day Edsel's nerves, uncertain at the best of times, had frayed a little more. Little Faxon was cheerful, dreaming of all the money they would make when they found the weapons, and Parke plodded silently along, apparently made of iron, not saying a word unless he was spoken to.

But Edsel had reached his limit. They had broken into another mound, and again there had been no sign of the lost Martian weapons. The watery sun seemed to be glaring at him, and the stars were visible in an impossibly blue sky. The afternoon cold seeped into Edsel's insulated suit, stiffening his joints, knotting his big muscles,

Ouite suddenly, Edsel decided to kill Parke. He had disliked the silent man since they had formed the partnership on Earth. He disliked him even more than he despised Faxon.

Edsel stopped.

"Do you know where we're going?" he asked Parke, his voice ominously low.

Parke shrugged his slender shoulders negligently. His pale, hollow face showed no trace of expression.

"Do you?" Edsel asked.

Parke shrugged again.

A bullet in the head, Edsel decided, reaching for his gun.

"Wait!" Faxon pleaded, coming up between them. "Don't fly

off, Edsel. Just think of all the money we can make when we find the weapons !" The little man's eyes glowed at the thought. "They're right around here somewhere, Edsel. The next mound,

maybe,"

Edsel hesitated, glaring at Parke. Right now he wanted to kill, more than anything else in the world. If he had known it was like this, when they formed the company on Earth . . . It had seemed so easy, then. He had the plaque, the one which told where the cache of the fabulous lost Martian weapons were. Parke was able to read the Martian script, and Faxon could finance the expedition. So, he had figured all they'd have to do would be to land on Mars and walk up to the mound where the stuff was hidden.

Edsel had never been off Earth before. He hadn't counted on the weeks of freezing, starving on concentrated rations, always dizzy from breathing thin, tired air circulating through a replenisher. He hadn't thought about the sore, aching muscles you get, dragging your way

through the thick Martian brush. All he had thought about was the price a government-any govern-

ment-would pay for those legendary weapons.

"I'm sorry," Edsel said, making up his mind suddenly. "This place gets me. Sorry I blew up, Parke. Lead on."

Parke nodded, and started again. Faxon breathed a sigh of relief, and followed Parke. After all, Edsel thought. I can kill them anytime.

They found the correct mound in mid-afternoon, just as Edsel's patience was wearing thin again. It was a strange, massive affair, just as the script had said. Under a few inches of dirt was metal. The men scraped and found a door.

"Here, I'll blast it open," Edsel said, drawing his revolver. Parke

pushed him aside, turned the handle and opened the door,

Inside was a tremendous room. And there, row upon gleaming row, were the legendary lost weapons of Mars, the missing artifacts of Martian civilization.

The three men stood for a moment, just looking. Here was the treasure that men had almost given up looking for. Since man had landed on Mars, the ruins of great cities had been explored. Scattered across the plains were ruined vehicles, artforms, tools, everything indicating the ghost of a titanic civilization, a thousand years beyond Earth's, Patiently deciphered scripts had told of the great wars ravaging the surface of Mars. The Scripts stopped too soon, though, because none told what had happened to the Martians. There hadn't been an intelligent being on Mars for several thousand years. Somehow, all animal life on the planet had been obliterated.

And, apparently, the Martians had taken their weapons with them. These lost weapons, Edsel knew, were worth their weight in radium,

There just wasn't anything like them.

The men went inside. Edsel picked up the first thing his hand reached. It looked like a .45, only bigger. He went to the door and pointed the weapon at a shrub on the plain.

"Don't fire it," Faxon said, as Edsel took aim. "It might backfire or something. Let the government men fire them, after we sell." Edsel squeezed the trigger. The shrub, seventy-five feet away,

erupted in a bright red flash.

"Not bad," Edsel said, patting the gun. He put it down and reached for another.

"Please, Edsel," Faxon said, squinting nervously at him. "There's no need to try them out. You might set off an atomic bomb or something."

"Shut up," Edsel said, examining the weapon for a firing stud. "Don't shoot any more," Faxon pleaded. He looked to Parke for support, but the silent man was watching Edsel. "You know, something in this place might have been responsible for the destruction of the Martian race. You wouldn't want to set it off again, would you?"

Edsel watched a spot on the plain glow with heat as he fired at it. "Good stuff." He picked up another, rod-shaped instrument. The cold was forgotten. Edsel was perfectly happy now, playing with all the shiny things.

"Let's get started," Faxon said, moving toward the door.

"Started? Where?" Edsel demanded. He picked up another glittering weapon, curved to fit his wrist and hand.

"Back to the port," Faxon said. "Back to sell this stuff, like we planned. I figure we can ask just about any price, any price at all. A Government would give billions for weapons like these."

"I've changed my mind," Edsel said. Out of the corner of his eve he was watching Parke. The slender man was walking between the stacks of weapons, but so far he hadn't touched any.

"Now listen," Faxon said, glaring at Edsel. "I financed this expedition. We planned on selling the stuff. I have a right to-well,

perhaps not."

The untried weapon was pointed squarely at his stomach.

"What are you going to do?" he asked, trying not to look at the gun. "To hell with selling it," Edsel said, leaning against the cave wall where he could also watch Parke. "I figure I can use this stuff my-

self." He grinned broadly, still watching both men.

"I can outfit some of the boys back home. With the stuff that's here, we can knock over one of those little governments in Central America easy. I figure we could hold it forever."

"Well," Faxon said, watching the gun, "I don't want to be a party

to that sort of thing. Just count me out."

"All right," Edsel said.

"Don't worry about me talking," Faxon said quickly. "I won't, I just don't want to be in on any shooting or killing. So I think I'll go back."

"Sure," Edsel said. Parke was standing to one side, examining

his fingernails.

"If you get that kingdom set up, I'll come down," Faxon said, grinning weakly, "Maybe you can make me a duke or something," "I think I can arrange that."

"Swell. Good luck." Faxon waved his hand and started to walk

away. Edsel let him get twenty feet, then aimed the new weapon and pressed the stud.

The gun didn't make any noise; there was no flash, but Faxon's arm was neatly severed. Quickly, Edsel pressed the stud again and swung the gun down on Faxon. The little man was chopped in half, and the

ground on either side of him was also slashed. Edsel turned, realising suddenly that he had left his back exposed to

Parke. All the man had to do was pick up the nearest gun and blaze away. But Parke was just standing there, his arms folded over his chest.

"That beam will probably cut through anything," Parke said.

" Very useful."

Edsel had a wonderful half hour, running back and forth to the door with different weapons. Parke made no move to touch anything, but watched with interest. The ancient Martian arms were as good as new, apparently unaffected by their thousands of years of disuse. There were many blasting weapons, of various designs and capabilities. Then heat and radiation guns, marvellously compact things. There were weapons which would freeze, and weapons which would burn; others which would crumble, cut, coagulate, paralyze, and any of the other ways of snuffing out life.

"Let's try this one," Parke said. Edsel, who had been on the verge

of testing an interesting-looking three-barrelled rifle, stopped.

"I'm busy," he said.

"Stop playing with those toys. Let's have a look at some real stuff."

Parke was standing near a squat black machine on wheels. Together they tugged it outside. Parke watched while Edsel moved the controls. A faint hum started, deep in the machine. Then a blue haze formed around it. The haze spread as Edsel manipulated the controls, until it surrounded the two men.

"Try a blaster on it," Parke said. Edsel picked up one of the explosive pistols and fired. The charge was absorbed by the haze, Quickly he tested three others. They couldn't pierce the blue glow.

"I believe," Parke said softly, "this will stop an atomic bomb.

Edsel turned it off and they went back inside. It was growing dark

in the cave as the sun neared the horizon.
"You know," Edsel said, "You're a pretty good guy, Parke. You're

"Thanks." Parke said, looking over the mass of weapons.

"You didn't mind my cutting down Faxon, did you? He was going straight to the government."

"On the contrary. I approve."

"Swell. I figure you must be O.K. You could have killed me when I was killing Faxon." Edsel didn't add that it was what he would have done.

Parke shrugged his shoulders.

"How would you like to work on this kingdom deal with me?" Edsel asked, grinning. "I think we could swing it. Get ourselves a nice place, plenty of girls, lots of laughs. What do you think?"

"Sure," Parke said. "Count me in." Edsel slapped him on the shoulder, and they went through the ranks of weapons.

"All these are pretty obvious," Parke said, as they reached the end

of the room. "Variations on the others."

At the end of the room was a door. There were letters in Martian

script engraved on it.
"What's that stuff say?" Edsel asked.

"Something about 'final weapons,'" Parke told him, squinting at the delicate tracery. "A warning to stay out." He opened the door.

Both men started to step inside, then recoiled suddenly.

Inside was a chamber, fully three times the size of the room they had just left. And filling the great room, as far as they could see, were soldiers. Gorgeously dressed, fully armed, the soldiers were motionless, statue-like.

They were not alive.

There was a table by the door, and on it were three things. First there was a sphere about the size of a man's fist, with a calibrated dial set in it. Beside that was a shining helmet. And next was a small, black box with Martian script on it.

"Is it a burial place?" Edsel whispered, looking with awe at the strong unearthly faces of the Martian soldiery. Parke, behind him, didn't answer.

answer.

Edsel walked to the table and picked up the sphere. Carefully he turned the dial a single notch.

"What do you think it's supposed to do?" he asked Parke. "Do

you think-" Both men gasped, and moved back.

The lines of fighting men had moved. Men in ranks swayed, then came back to attention. But they no longer held the rigid posture of death. The ancient fighting men were alive.

One of them, in an amazing uniform of purple and silver, came

forward and bowed to Edsel.

"Sir, your troops are ready." Edsel was too amazed to speak.
"How can you live after thousands of years?" Parke asked. "Are

you Martians?"

"We are the servants of the Martians," the soldier said. Parke noticed that the soldier's lips hadn't moved. The man was telepathic. "Sir, we are Synthetics."

"Whom do you obey?" Parke asked.

"The Activator, sir." The Synthetic was speaking directly to Edsel, looking at the sphere in his hand. "We require no food or sleep, sir. Our only desire is to serve you, and to fight." The soldiers in the ranks nodded approvingly.

"Lead us into battle, sir !"

"I sure will!" Edsel said, finally regaining his senses. "I'll show you boys some fighting, you can bank on that!"

The soldiers cheered him, solemnly, three times. Edsel grinned, looking at Parke.

"What do the rest of these numbers do?" Edsel asked. But the soldier was silent. The question was evidently beyond his built-in knowledge. "It might activate other Synthetics," Parke said. "There are

"Brother !" Edsel shouted. "Will I lead you into battle !" Again

the soldiers cheered, three solemn cheers.

"Put them to sleep and let's make some plans," Parke said. Fazed, Edsel turned the switch back. The soldiers froze again into immobility.

"Come on outside."

" Right."

"And bring that stuff with you." Edsel picked up the shining helmet and the black box and followed Parke outside. The sun had almost disappeared now, and there were black shadows over the red

land. It was bitterly cold, but neither man noticed.

"Did you hear what they said, Parke? Did you hear it? They said I was their leader! With men like those—" He laughed at the sky. With those soldiers, those weapons, nothing could stop him. He'd really stock his land—prettiest girls in the world, and would he have a time!

"I'm a general!" Edsel shouted, and slipped the helmet over his head. "How do I look, Parke? Don't I look like a--" He stopped. He was hearing a voice in his ears, whispering, muttering. What was

it saying?

"...damned idiot, with his little dream of a kingdom. Power like this is for a man of genius, a man who can remake history. My-

ince this is for a man or genius, a man who can remake history. My-self!"

"Who's talking? That's you, isn't it, Parke?" Edsel realised, sud-

denly, that the helmet allowed him to listen in on thoughts. He didn't have time to consider what a weapon this would be for a ruler.

Parke shot him neatly through the back with a gun he had been

holding all the time.

"What an idiot," Parke told himself, slipping the helmet on his head. "A kingdom! All the power in the world, and he dreamed of

a little kingdom !" He glanced back at the cave.

"With those troops—the force-field—and the weapons—I can take over the world." He said it coldly, knowing it was a fact. He turned to go back to the cave, to activate the Synthetics, but stopped first to pick up the little black box Edsel had carried.

Engraved on it, in flowing Martian script, was, "The Last Weapon." I wonder what it could be, Parke asked himself. He had let Edsel live long enough to try out all the others; no use chancing a misfire himself. It was too bad he hadn't lived long enough to try this one, too.

Of course, I really don't need it, he told himself. He had plenty. But this might make the job a lot easier, a lot safer. Whatever it was, it was bound to be good. Well, he told himself, let's see what the Martians considered their last weapon. He opened the box.

A vapour drifted out, and Parke threw the box from him, thinking

about poison gas.

The vapour mounted, drifted haphazardly for a while, then glimmered white in the dying light, and Parke saw that it was just a tremendous mouth, topped by a pair of unblinking eyes.

"Ho ho," the mouth said. "Protoplasm !" It drifted to the body

of Edsel. Parke lifted the blaster and took careful aim.

"Quiet protoplasm," the thing said, nuzzling Edsel's body. "I live quiet protoplasm." It took down the body in a single gulp. Parke fired, blasting a ten-foot hole in the ground. The giant mouth

drifted out of it, chuckling.

"It's been so long," it said.

Parke was clenching his nerves in a forged grip. He refused to let himself become panicked. Calmly he activated the force-field, forming

a blue sphere around himself.

Still chuckling, the thing drifted through the blue haze.

Parke picked up the weapon Edsel had used on Faxon, feeling the
well-balanced piece swing up in his hand. He backed to one side of
the force-field as the thing approached, and turned on the beam.

The thing kept coming.

"Die, die!" Parke screamed, his nerves breaking.

But the thing came on, grinning broadly.

"I like quiet protoplasm," the thing said as its gigantic mouth converged on Parke.

"But I also like lively protoplasm."

It gulped once, then drifted out the other side of the field, looking anxiously around for the millions of units of protoplasm, as there had been in the old days.

Robert Sheckley.

Indirectly, scientific bodies financed from Public funds are subject to the will of the people. A change of Governance can mean an increased or decreased appropriation for research work. Whitehold would quickly decide which was the best method for saving money—the application of the curtailment, however, may be a little difficult to apply.

THE MINUS MEN

By E. R. James

"Great Britain building a moon-rocket!" The driver took his attention off the straight concrete road, and stared at the big man sitting somewhat tensely beside him. "You're kidding me?"

"No." Peter Rasche shook his head. "I'm surprised you hadn't put the rumours together. It's been a kind of open secret for years. After all, what is such a rocket—fit it isn't a guided missile?" He smiled with a certain satisfaction, and feaned back. "I'll all be in the papers tomorrow, now that it's being cancelled. All those millions spent on such a crazy notion. I'll be the scandal of the century."

"It will?" said the driver. He looked back at the concrete road rushing beneath the car. "Well I'm hanged," he muttered, and he drove on with his eyes more than a little glassy and with his mouth

slightly open.

Peter Rasche hunched more deeply into his seat, the satisfied feeling warming him and driving out of his mind his fear of meeting Professor

Willoughby after so many years.

He stared out of the side of the car. The barbed wire that ran parallel to the road appeared to his unfocussed eyes as little more than a grey haze. He was aware of it as he was aware of the unfamiliar mountain wilderness of remote Britain.

But the Notices—the notices brightened by sunlight just behind the wire—they flickered past very regularly, almost mathematically, he thought, at about intervals of thirty seconds. He caught himself counting them. Each, as it caught his eye, was one to add to the total of posts behind him, one to subtract from the total before him.

Lulled by the flicker, fatigued by the long journey and soothed by

his thoughts, he dozed . . .

clearly? Let me see . . ."

"Huh!" Peter sat up in his seat and he felt the driver looking at him, so that he must allow his own gaze to light on one of those notices

as it leapt past.

KEEP OUT. SECURITY AREA. KEEP OUT

DANGER. ELECTRIFIED WIRE ROCKET RANGE. DANGER.

They all read the same. He blinked away the sleep and strained his muscles under his light, summer overcost. Things changed, Years ago, Professor Antony Willoughby—Doc Zero as he had been called by pupils only a few years younger than himself—had been the one to call the tune. Then, he, Peter Rasche, had been the dummy of the class; now, even though mathematics were still as baffling, he, Peter Rasche, would no longer be looking a fool, but would be making the professor dance in his turn.

Opposite a large, faded notice bearing a single letter, "M," an inlet showed in the wire. Into this, the car swung, halting in front of a gate flanked by a sizeable guardhouse. While two men in the grey uniforms of the Security Police checked the car with routine thorough-

ness, Peter wound down the side window.

"I expect you'll have had a quiet day?" he said conversationally.
One of the men, young and fresh faced, smiled readily. "Yes, sir."
He hesitated, stroking his wide chin. "It's right, then? They're closing Project M?"

"Yes-there's no harm in your knowing, now, I suppose."

"Oh," The two guards looked at each other. The younger one grimaced. "Ah well. It would have been something if this old country of ours had been the first to put a rocket on the Moon, still-"

"If you ask me," said the older man, "it's about time all this foolishness was stopped." He appealed to the smiling Peter. "You should have seen the lorry loads of stuff that kept rolling through this gate. Must have cost millions. Millions. I reckon the new Government's doing the right thing. Yet-it is a bit hard on the professor and his helpers, though. They work so hard."

Peter nodded his agreement and, as the car gathered speed through the gateway, he nodded again and chuckled. It always was hard on men when they were flung out of familiar employment. It would be especially disagreeable to Professor Antony Willoughby, who had risen from mere mathematician to Director of the project, and who, surprisingly enough, had been doing rather well in his high position.

Perhaps it was not unlike managing a lecture hall full of unruly

students.

Peter frowned, remembering the physical exhultation and mental agony of those days. He scowled at the road before them as it curved

up, parting the fir plantation on the hillside.

Mathematics has been the worst agony of all. The sight of the road faded from his mind as the pressure of memory mounted. Doc Zero bending over him, giving him individual attention, showing up his lack of ability with that embarrassing special attention . . . "Now, Rasche, this Minus Four . . . I wish I could think of some better way to explain. Minus Four-it's not a real number at all, you know. You can't have an actual minus four. It's a mathematical number. Four less than zero-" "Zero," said Peter aloud and with bitterness. There was some

sense to the idea of nothing-of no understanding-of no project; but

no sense to any hypothetical minus,

He realised that the car had stopped and that the driver was looking

" Administration Buildings, sir."

"Oh yes." Peter went in. He spoke to the Head Clerk and others, establishing his identity and the authority behind him.

He ascended in the self-service lift to the Office of the Project Director on the top floor.

PROFESSOR ANTONY WILLOUGHBY

The name was in small, mathematical-looking print upon the door. Peter walked in without knocking, and stopped. The spacious office, brilliant with the sunlight pouring in through the huge windows, was empty not only of anyone but also of any sign of its being used. Peter, walking over to the desk, noting the unmarked blotting paper, the empty waste paper basket and other signs of disuse felt vaguely thwarted.

Behind the desk he slowly turned to look out of the windows, down the length of the typical project area with its camouflaged concrete roads and buildings, large and small, reaching the length of the sparsely wooded valley. Project M was perhaps the largest single project ever tackled single handed by Great Britain. Taking it away from Antony Willoughby would hurt.

A sound made him turn. The door of an adjoining office had opened and a pretty, red-haired girl was looking at him doubtfully, as though

his size rather alarmed her.

He introduced himself, let her look at his Government authority and saw her attitude change-as though she were no longer afraid of him as a person, but more as the materialisation of an expected menace.

"You've come to close us down, haven't you, Mr. Rasche?"

"Yes," he said.

Her coloured heightened. "Three years work wasted," she burst out. "Another year-and it would be finished. Why couldn't you leave us alone?"

"I'm sorry," he said. "I really am sorry the project has to be closed dow-"

"No, you aren't !" she blazed at him. "You aren't any more than the new Government. Blind lot of fools. They say the country can't afford the project. They forget we're a country that lives by its tech-

nical knowledge, by its specialised skills, by its brains and its prestige-" "Steady !" he said. "That sort of talk isn't any use now." "No," she said slowly. "No, I suppose not. But nobody except

those here knows what's been done-all the effort and the growing hopes. You just can't shelve-"

"I'm not shelving anything," he corrected her. "It's the will of the people, as expressed in the vote that's just changed the Government.

She glared at him. He could see that his logic was lost on her: her open hatred was centred on him because he was there, because if he

had not come the project might have gone on.

Willoughby's project. It was almost as though this attractive young woman was in love with Antony Willoughby. But that was ridiculous. Dry-as-dust Willoughby, so tall he walked as though on stilts, so thin-

Peter involuntarily shook his head.

Following the information he had to prise out of her, he tried first at Willoughby's pre-fab, and then at the round-the-clock cafeteria where the scientific staff could get a meal at any hour. It was at the

latter place that he found Willoughby.

Three men and a woman were clustered around the mathematician's table. They broke away from it, excusing themselves as Peter advanced and as Antony Willoughby rose to his painfully thin, six feet four.

"Why, if it isn't Peter Rasche! I-"

"You remember me, then?"

"Of course. This is an unexpected pleasure-"

"Pleasure!" Peter laughed shortly. "Don't humbug me. You remember me because I was the worst pupil ever to get into your maths class." He pulled a chair beneath him and faced the mathematician, ignoring the hand that was outstretched. "You know why

I have come?"

"I can guess," Willoughly sighed as he seated himself. "Of course," he murmured, "I realise that you must find this kind of work—this translating into action the destructive decisions of others—most difficult." His mild, brown eyes, just as Peter remembered them, peered through the horn-rimmed spectacles without the slightest malice. "I will do what I can to make your task easier."
"You'll—"Peter closed his mouth with a snap. Willoughby was

hiding his chagrin amazingly well, "You'd better do just that !" he

warned.

For a moment or two he felt confused. His stored-up hatred for the mathematician seemed to have collapsed, muddling his thoughts. Then he observed the infinite patience of the scientist looking out of those eyes. Cow eyes! He would jerk them out of that flat complacency! "You understand there is nothing personal in this," he said as coully as he could.

Willoughby nodded. "Of course, Mr. Rasche. What a strange thing you should think it necessary to say that." He rose to his feet, so that Peter had to tilt his head well back to look up at the mild brown eyes. "I am in your hands," continued Willoughby. "Your orders, I understand, are to set to work with the minimum of

delay."

"Yes!" Peter thrust the chair back, pulled himself up to his full height. "Yes." He stared, still dubiously, across the table. "If you co-operate fully, I should be able to clear the staff out during the night, there is — er—always a big demand for semi-skilled men and technicians."

"Yes, I have found that, myself. Good workers are worth their weight in gold. Even the effort put out by the Project's dishwasher

has added to such success as we have attained here."

"Ut?" Peter suddenly felt he was being mocked; he felt his face redden and the veins about his neck thickened. "I can handle the dishwashers and other non-scientists. Perhaps, if you're going to help as much as you say—and you'd better do just that—you'll arrange for

a meeting of all the specialist staff in, say, the lecture hall?"

"Certainly. That would be excellent. But—I think you'd better the help you to explain to everyone. I don't think you realise quite how much of a team effort we have been making here. Everything even the small things—has such an effect on the whole, especially when the whole is isolated from outside interference and distractions as has been the case here. All the good work adds to the effort; all the had work subtracts from the—"

"Ridiculous!" said Peter. "You do your part; I'll do-"

"No, I'm sorry. But you must let me-"

"I don't want you interfering !"

"Interfering! Now, Mr. Rasche, how could I do that? However, if you attempt to handle the general staff and fail, I fear I would have to report you to your superiors as having deliberately disregarded my offer of assistance when it would have smoothed the change-over and saved much unpleasantness and . . . should I say time and moner?"

"What?" Peter clenched his fists. He had come to spite Willoughby who had been building a project for three years, and was about to be helped to destroy that project by his victim. "Damn you!" he choked.

"Do as you please."

"Thank you, Mr. Rasche," Willoughby called after him as he swung away. "I'll have the entire personnel of the Project assembled in the lecture hall. It'll take about an hour. Perhaps you'd like some refreshment in the meantime. You can get a freshly cooked lunch in ten minutes . ."

Peter reached the open air. "Wait here!" he snapped at his driver and strode away. Half a dozen paces, however, and he went back,

"You can get yourself a meal in there." he said gruffly.

He headed for the low, partially concealed buildings of the Planning Block. Half way there, he was halted by a partolling Security Guard. He suffered the man's inspection of his papers in a fuming silence and, the moment the man handed them back, commandeered his services.

"You'll be able to show me around. You can report in your change

of routine from the first 'phone."
"Very well, sir."

Peter nodded. They had nearly reached the planning block, when he glanced sideways at the burly man in grey. "There ever been any trouble here?" "Astonishingly little, sir. I believe there was a bit of friction over Union relations, but that was before I came. I've been here two years without a thing to break the monotony. Not even any small thefts worth mentioning—and I've never seen so much semi-valuable stuff kicking around."

"Really?" Movement, as always, was making Peter feel better.

They entered the studio-looking drawing room of the project. Three men turned to look at them and one, a comfortable, middle-aged man, introduced himself as Mallory Jones, Chief Designer and Co-ordinator of Units, and, in a cheery manner that contrasted with a positive surliness of the other two, he introduced them as Gerald Tonkins, draughtsman, and Bruno Brown, M.D. of the Physical Research Section. Peter gathered that Willoughby had already been on the visiphone about the pending break-up of the project.

While the guard was reporting in to a rather red-faced sergeant in the Security Barracks, Peter strolled over to the drawing tables. He examined a sectional drawing, almost complete, of a rocket stage, and glanced at the unfriendly face of the draughtsman, Tonkins. "Did you do this?"

"No."

"Dooley did it." explained Mallory Jones, smiling as though to apologise for Tonkin's unhelpful brevity. "Dan Dooley's my other top draughtsman. He's not back from lunch, yet." He scratched his chin. "Odd that, rather. But—Well, you know, he has family trouble. The quiet gets on his wife's nerves sometimes..."

"A most possessive woman," added Dr. Bruno Brown. "On more than one occasion she has made herself sick deliberately, in order to

make him neglect his work instead of neglecting her."

"Oh, really" said Peter impatiently. He turned as the door opened. A young man, whose dull black hair and stubble-shakow contrasted with the extreme pallor of his skin, hurried in as quickly as a crippled foot would permit. "Strenberg says you seem to be planning to use Allop P.738 for the Third Step explosion chamber—" Catching sight of Peter, he broke off suddenly.

Mallory Jones introduced him as Gerard Pool, chemist specialising in fuels and explosives for the project. "Mr. Rasche is looking over the project before it is closed down," ended Mallory. "You could

show him around your labs before the meeting."

"Yes. I'd be delighted." The chemist turned awkwardly on his short leg to look up at the wall clock. "There's time to give Mr. Rasche an idea of the whole plant, if he'd like that?"

"Oh, I would," said Peter in surprise. He nodded when the Security Guard suggested that, in this case, he might go back to his duties.

Mallory Jones put a friendly hand on Peter's shoulder, Gerard Pool took his arm, guiding him out, past the other men, who frowned and said nothing. The contrast between these reactions stirred a vague unease within Peter.

He sat quietly while the chemist's landrover car took him around a series of small laboratories sunken for safety into the rock beneath the thin soil, and listened in alarm to the chemist's talk of formulae that were almost certainly on the secret list. "But of course, Mr. Rasche, you can't get much idea of our activity—not now everything's stopped. What a shame it is 1 'I'm sure in some things we were even in advance of the Americans." He chuckled. And he drove over a rise towards a long building, silent now, but with workmen in the the overalls of heavy industry comine away from it.

Strenberg, the Metallurgist in Charge, was alone in his office, frantically feeding data into an electronic brain. He looked up and his heavy face went blank with hatred. Before Gerard Pool had completed Peter's introduction, Strenberg was turning away, stalking off into the empty workshops, a big, heavy man with his shoulders sourared and

his mind made up.

On the highest part of the valley sides, Gerard ushered Peter into the Project Observatory, interrupting a heated argument between two distinguished-seeming men and a woman, introduced by Gerard as Master Electrician Charles McClay, Air Vice-Marshal Raymond Linelle and Beatrice Hask, astronomer of international repute. They stared at him as though he reminded them of a poisonous snake.

Gerard did not seem to notice their reaction. Holding Peter's arm, he limped out, chuckling to himself. "I can only guess at what

foreigners would pay to pick the brains of those three."

Driving down into the valley again they looked into several workshops, all bearing evidence of work partly finished, suddenly abandoned.
"We make models up to quarter the scale of the real thing and send them elsewhere for testing," explained Gerard with unflagging friendliness. "Conditions in the vacuum of Space are so different from the natural environment of man and his machines that we have had to re-learn our science. "Iwently years from today the—er-Spacemen will possess power and machines such as we can only guess at today. We are on the threshold of an entire new technology."

Only the massive concrete block of the atomic power pile was forbidden to them. "They're changing over to the new Grobor system of direct electro-induction," explained Gerard. "No danger, really, but one has to be ready for any eventuality. It wouldn't look too good if you were involved in a blow-up, would it?" He smiled readily, his

pallid face reminding Peter of a death mask.

In the last, and largest single building of the Project Area, after Peter had been admitted only on direct orders from a visiphoned Antony Willoughby, Gerard's voice thrilled with pride as he pointed up to the towering structure of a semi-finished rocket shape. "Something like this will take the first Briton out into Space," he said. He explained the multi-stage rocket motors, the reason for the long, arch-like fins which now took the weight of the ship as its landing gear but which, in Space, would act as stabilisers, even though there was no air there, in the same way as the single stick of a toy rocket, and they only remembered the passage of time with a start when a messenger located them, warning them that the general assembly of the Project staff was almost complete.

"Good," said Peter. Gerard's enthusiasm had been infectious; there was, however, a job to be done. "Let's go."

"No hurry—" began the chemist.

But Peter interrupted brusquely. "I am most anxious to complete

the preliminary stage of the Project dispersal at once."

Gerard hesitated, but finally led the way back to the car. He drove

slowly, seeming paler than ever.

"Perhaps you'd better let me drive," suggested Peter, "you don't look at all well."

"Eh? Oh." The car jerked as Gerard dabbed his foot down. "I'm all right, really." But the burst of speed soon faded out.

Peter frowned to himself, but held himself in check.

The car reached the sizeable, pre-fab lecture hall at last, and Peter, beginning to feel that he was somehow being made a fool, sprang out and ran up the steps through the stage-door entrance.

After the drive in the bright sunshine, the passage beside the toilet and the little dressing rooms was vague and shadowy. Peter felt his

arm caught.

"Oh!" exclaimed a voice. "Mr. Rasche?"

"Yes!" snapped Peter, wrenching his arm free and glaring at Mallory Jones, who stood, smiling but effectively blocking the way. "Are you going to let me pass, or—" He left his threat unsaid.

Mallory Jones looked rather startled at the suggestion of physical violence. As Peter took a determined step forward, he shuffled backwards.

Peter thrust him aside, saw the stage lights glowing through the wings, and heard Willoughby's quiet voice say something indistinguishable. An instant later and he strode on to the stage. Antony Willoughby was in the act of seating himself, folding down his thin

body on to a chair beside a blackboard.

On the blackboard was some kind of algebraic equation. No, it was a series of equations. A great length of miscellaneous symbols was crossed out with a slash of chalk, Beneath it was written:

"Therefore, assuming all other things to be equal, where the value of 'v' is zero, the equation may be simplified thus:

x = y minus 4."

Professor Willoughby, noticing Peter, came smoothly erect, taking hold of Peter's reluctant arm and beaming across the footlights at the lighted auditorium crammed to capacity. "Ladies and gentlemen, Mr. Peter Rasche." He added, in an aside to Peter. " Excellent timing. I have prepared the way for you . . .er-as well as I could."

"Oh?" Peter glanced at him suspiciously. Then, expecting almost anything bad, he faced the silent crowd. Their hatred of him seemed to come up in waves, beating soundlessly through the tense hush. He could recall nothing comparable with the sensation of it. It was like looking at a wall and knowing that it might fall on him at any

moment.

"I can well understand your disappointment-your overwhelming disappointment," he said and, under the weight of their incredible hatred, he felt how shockingly inadequate were his words, but he forced himself to go on. "You will understand, however, how gigantic has been the drain Project M has made on Great Britain's resources. Now that the electorate has expressed its will for reduced taxes and maintained social services, there has been no alternative to closing this and other projects which promise no immediate cash return. maintain our standards of living," he went on rather desperately in the face of a total lack of response, "we must concentrate our resources and skill and ingenuity on such well-tried products as aircraft, electrical gear, electronic and-er-atomic . . ." His mouth and throat seemed to have dried out. The men and women out there beyond the lights at his feet made no sign of hearing him. They were waiting, it seemed. He cleared his throat. "In short," he said, "all except the scientific core of this project will be moved out to redistribution centres during the night. Route lists will be put up on the notice boards at teatime and I will be in the Office of the Project Director to consider any request or appeal against allocated assignments."

The temper of the audience showed a slight simmering of argument. Peter felt sweat breaking out on his forehead. His own anger blazed up at the idiocy of the situation. "If," he said loudly, "there is any trouble, any disorder or wrecking of plant, I will call in troops to clear

the area !"

"I'm sure that won't be necessary," said Antony Willoughby's quiet voice, somehow making itself heard above the rising hubbub so that it stilled

And, astoundingly, a mere minute or two later the bulk of the crowd had gone, leaving only the scattering of creative scientists.

"They are all here?" Peter asked Willoughby.

The mathematician pursed his lips. "Well, no, I'm very much afraid they're not. The six men working on the power pile cannot leave until they have completed their work. But your voice has been reaching them over a loudspeaker hookup."

"Good," said Peter as firmly as he could, wondering, however, how

he had sounded. "Is that all?"

"Yes-I mean, no. No, you see, one of the head draughtsmen-" "Man called Dooley?"

"Yes. That's right. How did you know?"

"Never mind that, What about him?"

"Can't seem to locate him. His wife says they had a row and she

doesn't care if she never sees him again." "I see." Peter thought for a moment, then he made his short

speech of closure to those that still waited. Creative scientists were most important people. Within very wide limits, they could choose their own new work. Already invitations from other projects were coming in for the better known amongst them. They did not have to choose immediately either. The Government realised that breaking off from one kind of work and entering upon another was not conducive to new discoveries.

These points stressed, he turned back to Willoughby who hovered anxiously at his side. "This man Dooley. It's strange you can't

locate him, isn't it?"

"Yes," agreed Willoughby. "Yes, it is. I have tried everything. He simply seems to have disappeared. But . . . I suppose he'll turn up when he thinks his wife's cooled down."

"Yes, I suppose so," agreed Peter,

The break-up of a big project such as this was always a task of some unpleasantness and often of unforeseen difficulties. But the routine procedure, altered only in scale to suit the size of Project M, went so like clockwork that it might have been rehearsed for weeks instead of being done impromptu.

It was not until the last coach-load of still rather silent staff members had purred out through the main gates on to the concrete road, that Peter remembered Dooley and checked with Professor

Willoughby.

"No," said the professor's image from the visiphone screen, "still no sign of him."

"This is going too far," said Peter, and reported the absent scientist to the Lieutenant of the Security Guard. "Can he have got clear of

the area?" he asked the serious-faced young man.

"I don't see how," came the cautious answer. "He wouldn't get to the wire around the camp before he cut through the beam of one of the photo-electric eyes. We would have known if he had put one out of action. There has been no afarm activated. Nothing."

"All right," said Peter. "I'll give you two hours to find him. I

want every foot of the area searched."

Some thirty minutes later he was making his report by means of a scrambler attachment to the ordinary visiphone trunk line, when the cordon searching the area checked most thoroughly through the administration building. He watched the men's lights search through the open ground towards the pre-fab dwellings and presently, his call completed, he had his driver take him back to the Guardhouse.

"Would it be possible for this man Dooley to have been picked up

by an aircraft?" he inquired of the lieutenant.

The Security man tapped his fingers on the top of his desk. "We have lookouts in daylight and radar and electricity-detection systems at night," he said.

Peter went outside and looked up at the winking stars. The moon was rising, cold, white and somehow that evening almost challenging as a few cloud streamers scudded across its quarter of a million mile distant face.

Suddenly the door of the guardhouse was dragged open. "Mr. Rasche!"

"What is it?" He swung around, startled.

The lieutenant panted and lifted his arm. "They've found something. Over there!" He waved his other arm. "Corporal. Bring that light over here. Hurry. man!"

"What have they found?"

"I'm not too clear myself. Marks in the ground, I think."
"Where?"

Wherer

"Between the prefabs and the huts used by the draughtsmen."
"Driver!" yelled Peter, and, as his car bounded forward to his side,

he motioned to the lieutenant. "Get in, man!" Inside, with the headlights dispelling the gloom in front, the lieutenant sat forward on the edge of his seat, giving instructions to the driver as the car gathered speed up the concrete road.

The trees seemed to close in on them; then they were clear of the wooded belt and looking down on the valley. Peter leaned forward.

Had the cordon held across the valley? Looked as though it had. Lights carried by men, headlights and supplementary lights of the security trucks and cars, and searchlights probing the night sky and moving across the ground, all combined to make a most of light that seemed to have held steady.

Men and machines began to take shape between the pre-fabs and beyond the still-lighted cafeteria and lecture hall. The car ran off the road, nosing between two groups of watching civilians, and halting abruptly close behind a cordon of uniformed men. Peter and the lieutenant leapt out opposite doors of the car and ran around to the front.

A large patch of ground had been recently dug and planted with small firs. A sergeant, his ruddy face glowing in thelight, beckoned them and they passed through the cordon. Their feet sank into the

"There you are, sir !" The sergeant pointed.

Several firs had been damaged to an ever increasing depth so that at the end of the line of markings a few had been uprooted and the ground was dented with short marks made by balloon tyres.

"A helicopter !" gasped the lieutenant. "How could it have landed and taken off without affecting the radar or spark detectors." He

turned a pale face to Peter.

Peter thrust forward around the marks. "Footprints here. Careful," he warned, "don't spoil them. Two pairs, d'you see? They came from the direction of the drawing offices-and they didn't go back. One man was limping-see the unevenness of the marks he made?"

Peter drew in his breath. Gerard Pool had limped. He seized the lieutenant's arm. "Now listen. Carefully! I'm taking charge from now on. You will hold your cordon steady. With all the light you've got, you can spare a few men. While the cordon presses on, examining the camp area, I want you to round up all the remaining project personnel and hold them in the lecture hall until I come. I don't think you're going to find Dooley, and it looks as though two others, probably Gerard Pool for one, have also gone-"

"Sir !" interrupted the sergeant. "I've found something. Some sort of empty case." He lifted it up. "A flare case. Smells smoky.

Look at these marks on it."
"H'm," muttered Peter. "Like no kind of language I've ever seen." He looked up thoughtfully. The clouds were thickening, obscuring the stars and streaking the moon with shadow. How could any known kind of flying machine land without betraving its presence?

Peter.

Leaving a scurry of alarmed activity behind him, he was driven to the administration block. With his scrambling attachment again on the visiphone, he was soon speaking to London, reporting the new and disturbing development. Told to wait, he sat turning the events over in his mind.

The lieutenant called in on the inter-building visiphone saving that a roll call of the staff had been taking in the lecture hall. Gerard Pool

and Mallory Iones were missing, "And what does Professor Willoughby think of that?" inquired

The lieutenant cleared his throat. "He-he said that if someone was spiriting them away, then that someone certainly had picked the

right men-the men with the special knowledge."

"He did, eh? I shall want to speak to him about that-" Peter broke off as the outside line visiphone called him. "You stay there," he ended hurriedly, "we want no more disappearances, so hold everyone. Got it?"

Hardly waiting for the lieutenant's acknowledgement, Peter switched off. The picture forming on the screen of the other visiphone took

his breath away.

"No," said the image sharply, a long-fingered hand lifting to smooth back the greying hair in a familiar gesture, "your eyes are not deceiving you. I am Basil Humphries, Foreign Secretary to Her Maiesty's Government. Have you now ascertained the names of the other two missing scientists?"

"Uh- Yes." Peter recovered from his surprise and gave the desired information. "One's Designer in Chief and the other's the

fuels specialist. Professor Willoughby says they are key men." "I see. You have taken precautions to see there are no further

disappearances?"

"Yes." "Very well, I will hold you personally responsible. At the moment I can't tell you what will come out of this, but you can, if you wish,

explain to the scientists still there on the project that I am going to consult with the Chancellor of the Exchequer and the Home Secretary. and perhaps call up the Prime Minister."

"Tonight?"

"Tonight, I'll have them out of bed if necessary, If British scientists are determined to build a moon rocket, then we don't want to have them going over to any foreign country for backing."

"Sir !" said Peter suddenly. He explained about the markings on the canister that had been found. "They looked-now, please don't think I'm romancing, for I'm just trying to be objective-they looked

definitely unearthly. Even the metal looked queer, though I didn't say that to the others at the time."

"You mean . . . You're suggesting an extra-terrestrial origin?"

"I'm pointing out the possibility," said Peter.

After the Foreign Secretary had cut off, he sat, turning over the events of the last twenty-four hours. He recalled the posts flickering past him. He remembered thinking of Willoughby as the Doc Zero of lecture days. From the moment of entering the camp it began to seem to him, as he sat there in the silent, brilliantly lit building, that there had been some kind of conspiracy to fool him. Reality seemed to have assumed the proportions of the unreal. He almost felt like pinching himself to make sure he did not dream.

Dooley he had not met, but the other two, Mallory Jones and Gerard Pool had both been friendly towards him. In fact, of all the camp, only those two and Willoughby had not hated him for coming,

The climax of this strangeness seemed to have occurred in the lecture hall, when he broke in on Willoughby who had apparently been illustrating whatever he had said by mathematical equations on the blackboard.

"Therefore, assuming all other things to be equal, where the value of 'v' is zero, the equation may be simplified thus . . z = v minus 4."

Peter rubbed his chin. "x" was usually the unknown-the quantity one had to discover. "y" was said to be zero-nothing. "x = o minus 4 . . . that would be the same as saving x = minus 4 . . . " H'm. Doc Zero had known he, Peter Rasche, had always been a dud at maths. "Yet . . ." Peter, tense, suddenly gasped and rose slowly to his feet.

He grabbed at the visiphone. "Lieutenant?"

"Yes, Mr. Rasche?"

"Willoughby? Is he there?"

"No. He's left to see you. You wanted to see him. I thought-" Never mind !"

Peter ran out of the building, flung himself into his car. "Lecture hall ! Hurry !" The driver, catching the urgency, flung the car forward. Less than a minute later it skidded to a halt beside the lecture hall. Peter leaned out. The cordon could just be seen, still advancing steadily, its members roughly in line with the last building of the Project-that which housed the partially-built, actual-size rocket. The

Lieutenant was running towards him. "Stay where you are !" shouted Peter. He touched the driver's

shoulder, "Straight ahead, I'll tell you when to stop,"

The lecture hall shrunk behind them, the laboratories and workshops flickered by, faintly seen in the gloom.

"Now." said Peter. "Stop here!" As the car skidded to a halt, he looked out at the wide expanse of concrete that was the top of the atomic power house. "Wait for me," he said shortly, "If you're attacked, fire in the air, but do not, on any account shoot to kill !" "Yes, sir."

Peter stepped out of the car and stood in the darkness, letting the night sounds fill his mind. Thankful for the occasional trees and scrub that had been allowed to stand as part of the natural camouflage

of the area, he moved slowly forward.

A painfully thin shape loomed up out of the darkness, paused to peer in the direction of the stationary car, and then moved on, crouching Peter followed noiselessly. This he could do.

The tall man merged into the shadow of the power house wall. A

key scraped in a lock. Peter crept forward.

For an instant the tall man was framed by a doorway against a dimly lit room-lit only by a freshly extinguished light bulb-beyond,

In that instant, Peter dived forward, catching the tall man squarely

between the shoulders, sending him staggering forward.

The door, fitted with a self-closing device, caught his heel as it swung shut behind him. Biting his lip against the pain of the wrench he flung himself sideways, drawing his automatic pistol from its shoulder holster as he did so.

The light blazed on. Worked by the closing door no doubt. A

bare concrete cell of a room, this.

"Put down that gun !" said a voice sharply. Peter got his balance, steadied, and peered at the four men watching

him tensely. "You dare not fire," said Gerard Pool but he did not sound too sure,

Mallory Jones smiled. "He was cleverer than you thought, Willoughby." Although he smiled, his face was as pale as Pool's. "We

can't let him ruin everything now-he can't kill all of us." "I am a professional trouble-shooter," said Peter and smiled, aware

of his power at last. He moistened his lips, pulling himself to his full height, "You'd not be a match for me-no, not all four of you,"

"Peter," said Willoughby softly, "You—you solved the equation?"
"Yes. When the project was reduced to Zero, you estimated that if four members of its staff were to be subtracted from that zero, you would frighten the Government into reinstating everything."

"That's right !"

The amazement in Willoughby's voice brought a chuckle bubbling

into Peter's throat. He had beaten them. And yet-

"It would be a grand thing," he said, "if Great Britain were the first country to put a rocket on the Moon." They had beaten him, too.

E. R. James

This month's article deals with the changing evolution of living creatures (including Man), and Mr. Sandfield clearly shows the dividing line which led the human race upward to an advanced intellect.

INTERPLAY

By Laurence Sandfield

Our men of science have barely scraped the surface. We as a race are at the beginning, the very threshold of science. We have penicillin and nuclear fission: and in those two things the width and depth of modern knowledge is made manifest. It is the width and depth of the beginning. Already, with little more than 200 years of true scientific study behind us, we are forced to the rule one book, one subject. In fact, to deal with a subject adequately, many books need to be written.

When reading, one is tempted to think of the sciences as being discreet from each other, each a separate entity of itself. Any attempt to correlate acquired knowledge with the real world brings home the falisty of such a picture. The natural sciences may be used for the purpose of studying the life of any given terrain, but before long one is obliged to stray into chemistry or physics to reach full understanding. Thus, the labels bio-chemist, bio-obvsicist. All this is necessary because of the complex and involved interplay of heredity and environment in the evolution of living creatures. Earlier biologists thought that the process called natural selection was solely responsible for the changing forms of fossil and livings things. The data of Gregor Mendel and the geneticists proved otherwise, but the inheritance of mutated genes is not alone responsible for evolution

Environment, malnutrition and other factors can distort the shape of animals, but it seems that with the exception of hard radiation environment cannot effect the genes themselves. Again, a change in environment may bring into play a mutation that has lain recessive and dormant for generations. Life, to say the least of it, is complex.

Let us see what can happen to a creature exposed to these influences. An almost classical case from prehistory, a creature that has been studied perhaps as closely as any existant life form. The icthyosaurus.

This "fish lizard" belongs to the geological period known as the Jurassic, which it entered with several well defined forms, and persisted in England at least, until the last of the three Jurassic divisions, the upper or white.

The really primitive forms of this reptile are apparently lost to us in time, and we find it a fairly highly evolved creature, descended from land dwelling forms that had returned to the sea as a solution to their

survival problems.

In doing so they had to make numerous drastic changes in their body structure. They entered the seas of the Lower Jurrassic well armed with teeth and heavily armoured, but chiefly because their prey consisted of fast soft shelled squids and shelled octopi, both now extinct, they later dropped the armour for the sake of speed.

The problem of moving through water at high speed was solved in a manner that established a sort of tradition among land forms return-

ing to the sea.

All four limbs became paddles. The body became long and dolphinshaped. As the form perfected, something took place that hasn't happened since. The long reptilian spinal column made a sharp down-

ward curve and served to support the lower tail-fluke.

Note that, The lower tail-fluke, The ichthyosaurus, in surrender-

ing its land-dwelling birthight, did what no other such creature has done. It evolved a vertical tail. All the large pelagic mammals of our day have horizontal tails and move perforce in a sort of up-and-down ripple, rather than the steady forward drive of the fish. This is especially marked in the case of the dolphin.

The ichthyosaurus had another and even more urgent problem to solve. They were reptiles, and therefore egg layers. Their perfect INTERPLAY 75

adaptation to marine life rendered the turtles solution of coming ashore to lay impossible. So they did what several other creatures have done

for a variety of different reasons.

I keep in aquarium. It houses exotic fish, among which are Molliemia lattipan (Perma Black Molly), Lebisse Reticulatus (Guppy), and Xiphophorus (Platypoecilius) Maculatus rubra (Red Wagtail Platy). These small fish from Mexican and Amazonian localities have all solved the problem of small spawning and many enemies by becoming live-bearers—they allow the eggs to develop in the female until the young are born at a fairly advanced stage, with the yolk-sacs gone and the abilities to feed and run fast well developed. These fish do not nourish their young through a placenta as do mammals: they merely give the off-spring garage room until they are ready to go.

It seems likely that the ichthyosaurus were the first live bearers. A curious fact is that all live bearer young are born tail first, the opposite from mammals. This gave rise to some controversy when ichthyosaurs with small ones inside them were first unearthed. One school of thought contended that the embryos were nothing more than small ichthyosaurs eaten by large ones. They called the forward facing stance of the young lizards "pursuit position," in spite of the fact that six foot specimens were found with two foot ones inside them. Things were finally settled in favour of the live-bearer

theorists.

The shape of the ichthyosaurs is known to us through a lucky accident. A gentleman named Bernhard Hauff owned large quarries full of Jurassic slate. He became very skilled at separating fossils from the slate and was extremely popular with museums. One day he spilled water over a half-separated ichtyosaur. When the water dried it left a pattern on the slate—the impression of the reptile's flesh. This settled the live-bearer controversy. The skin specimens not only revealed a hitherto unsuspected shark-like dorsal fin, but also revealed a female giving birth.

There we have a perfect example of adaptation to environment. The question is, what do we mean by that phrase? To the mutationist

if signifies this.

 Alterations took place genetically that forced the ichthyosaurs to take to water to survive.

Having taken a liking to sea food, only those mutations likely to make the lizard more sea-worthy were likely to survive.

The truth lies in a synthesis of the above conclusions. Because we can study the fish lizards without taking into account our own impact on them, they form convenient object lessons on the interplay of environment and heredity.

They had to drive a heavy body through water fast, so they developed a streamlined, dolphin-like form. Additionally all the armour and most of the armament they started with was dropped. In the early Turrassic, the sharks developed a number of fast and heavily armoured forms. Until they sacrificed all for speed, the lizards could more than hold their own with these. By the white Jurrassic period, however, they were beginning to thin out, and when the soft-shelled squids disappeared, the ichthyosaurs followed them quickly into limbo. The sharks descendants are still with us.

Turning to modern animals, let us consider those which have similar problems to solve. It seems that the further an animal evolves from the sea, the more efficient a return it can make, although of course the fishes still reign supreme. The ichthyosaurs did pretty well, but they were reptiles, dependent on a three-chambered heart and the surrounding temperature to maintain their vitality. The whales entered their marine environment with the four-chambered heart and constant temperature apparatus of mammals, not to speak of a highly evolved placental live-bearing outfit.

An interesting point is that whales are not marsupials. (It is likely, therefore, that kangaroos represent an older group, yet they are not nearly as specialised. It would be worth checking marsupial geology on this point). With their hind limbs buried beneath layers of fat, their hands bound in cartilage and muscle, they are doomed. Frequently, a land dwelling creature may give rise to something better and disappear, but they who go down to the sea in flesh drift into the limbo of fossil bones as inexorably as the sun goes down.

The problems they had to face are essentially similar to those of the

ichthyosaurs and they have taken a parallel road. One finds the long slim body, the muscular tail. With a difference-whales do not use the spinal column to support the tail. Their design is a horizontal one, in opposition to fish and fish lizards. A rather strange parallel lies in the fact that the beak-like head of the dolphin is similar in silhouette to the ichthyoid one.

Having seen the effect of environment on evolution, where does

mutation come in?

The answer is: practically all along the line, but more especially at the beginning of a line of descent. As a type grows older, mutation tends to decrease until the form is more or less fixed. By this stage, specialization has often reached its zenith, and any major environmental change leads to comparatively speedy extinction.

Mutation is a random business, but only those mutations that (a) breed true, (b) help the organism to adapt better to its environment,

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and (c) does not interfere at all—only these are allowed to persist.

So whatever series of mutations drove the whales and the ichthyosaurs back to the sea, it necessitated still further mutation before they could live there in comfort.

It would appear then, that there is some law governing the types of mutation that can appear in a line of descent. However, it doesn't work that way. One can look at the zebra's stripes and reason, "This creature needed stripes as a camouflage. Therefore, a mutant with stripes appeared."

This looks logical. Don't be deceived by it. The zebra's formula actually reads S+S=S. Stripes plus swiftness equals survival. Evolving from Eohippus or an allied form, speed was already there, and when the striped type arrived it proved a factor of great survival value, finally superceding its less colourible brethren.

Evolution takes place like that.

The universe is ruthless. Agree or perish! It can be expressed in

no other way. Yet also, agree too well, and perish.

Great whales float like wonderful living ships. Their brains are enormous and deeply convoluted. The fingers that can never create or climb or grasp, paddle the water in poor imitation of a fish's fins and the legs are lost in an ocean of blubber. The leviathan moves slowly but surely down the path of the ichthyosaur, honelessly en-

tangled in a web of interwoven environment and heredity.

So, then, to man. Also to a small case of inefficient engineering inherited from the fishes, all the way back in the Devonian era. At this time, all fishes resided in shallow lakes and streams—there was very little other water for them to occupy. Then all fish breathed air, taking it from the atmosphere through nostrils and taking it to the air-bladder by way of a tube across the mouth, the air-bladder being beneath the digestive tract, a bad situation. When the Devonian heat rendered the shallow inland waters too foul and oxygenless for their gills to work properly, some of the primitive fish retreated to the small seas. Others dropped gill-breathing altogether, turned air-bladder into lungs and fins into legs, thus becoming the early amphibia.

Those that went to sea reversed the position of the air-bladder, cut to fif from the gullet and used gills exclusively. They've been fish ever since. The amphibians became, finally, men. The position of the air-bladder and digestive tract has however remained unchanged, so that our air-passage crosses our throat and food can go down the wrong way.

Because the bones that support the second pair of fins in fishes are not attached to the spine but buried in the flesh, the amphibians manufactured the sacro-iliac joint, which can cause a lot of trouble to humans. Heredity has not altered it much, so you know where to lay the blame

for that particular pain.

Heredity gave us the sacro-liac and a good many more desirable things, and environment forced a fair turn of speed on us. Mutation, it seems, produced a sport that dropped armament in favour of brain, then used that commodity to manufacture the claws it could not grow. This great unwieldy brain helped us to climb out of the jungle and make environment suit us, so that the road of the ichthyosaurs is not for us.

There are other roads. There is a slight tendency for post-natal mortality to increase to due the retention and staling of blood in the placenta. The increase is in the order of one hundredth of one per

cent per century, like most evolutionary trends.

It is possible to make out a poor case for intelligence as a survival factor. You can do it quite logically. Just try. But don't forget, it has brought this soft clawless embryonic creature called man farther and probably faster than any before it.

For to adapt to environment is an excellent survival measure.

But the environment must not change.

To force environment into that which is most comfortable is an excellent survival measure. But it leaves no environment challenge to a creature that will make it

improve itself.

Therefore find another environment to alter.

Hollow log — coracle — sailing ship — steam ship — spaceship — all are means of transport to a new and challenging interplay of mutation (diet /change.

As long as there are planets in the universe and the means to reach them, the way of the fish lizards is not for man.

Laurence Sandfield.

Part of our editorial policy is to occasionally have a space opera story—an adventure which, but for its future setting, could well happen anywhere at any time. This is one such tale. Moral—if you don't like space opera, move on.

BITTER THE PATH

By Kenneth Bulmer

To: Colonel Auric Hendler, C.O. and Survey Group. From: General Keler Lohring, Bureau of Extra-Palladian Affairs. Subject: Report on Planet V of Double Sun GX857.

From your detailed report, Auric, this planet appears a bad business. The large herbivores and feline carnivores are apparently native to the planet: but, I agree with your judgment, the planet-wide sporing moss seems to have been only recently soon from space.

The fact that the planet is of a size with Pallas and has a breathable atmosphere is unfortunate. I don't have to emphasize to you hove concerned the Bureau is over any restriction to our colonisation programme and in this case, with the system in the disputed zone between us and Earth, a colony here would be invaluable.

However, it is the general consensus of opinion that a colony could not be successfully established.

You are therefore ordered to withdraw your survey group and report to Bureau Headquarters, Pallas.

Keler Lohring, General, Director W.E.P.A.
P.S.—You'll just be home in time for the final negotiations of the truce

between Pallas and Earth.

Rex Tallon stood limply with one hand clutching the ramshackle fence ringing the spaceport, apprehensively watching from blacksmudged eves the new arrivals leave the spaceship. The old fear bubbled inside him, carving grooves of worry in his thin, nervous face, threatening to spill over and choke him in bile. The same old fear that had dogged him since the day he'd deserted from the Terran Space Medical Service.

Down the ramp across the dusty ground baking under the double suns the latest recruits to the frontier planet of Elysium slowly came, their eyes wide with the wonder of new places.

"Suckers," Tallon said aloud, bitterly,

A graceful young woman with three children holding tightly to her

skirts walked steadily to the adobe terminal building, yet Tallon detected in her some ache, some little portion of the dominating fear that always rode him. She must be the new schoolteacher. Tallon had a vague idea that he should feel sorry for her.

The only other newcomer, a burly, brown-faced man stamped with the authority of retired rank, attempted in an awkward, unused way,

to help her with her baggage.

Tallon licked dry lips caked with the dust still hanging in the air after the disturbance of touchdown, stared with that familiar nauseous stomach-wrenching fear at the open port, and found a wonder that they had not come for him yet. He passed a shaking hand across his forehead and bent to pick up the water cans voked across his neck.

He could breathe freely again until the next ship, until the next time of standing here, waiting for them to come marching down the ramp stiff-necked in their Navy black. The relief left him dizzy and he slopped water from the cans slung round his neck. He knew they'd come, but there was nowhere now left for him to run.

"Hey, Gunga Din! Careful with that water!"

Tallon jumped, shuddering as he was jerked from his miasmic thoughts back to the reality of the present. The big, fleshy-faced man vaulted from his battery-driven truck, leather jacket straining across

beefy shoulders.

"All right, Mister Widor. I'm sorry." Tallon's lean, pinched face sank, avoiding Widor's glare. He shuffled his naked bony feet in the dust, uncomfortably aware of the two dark water stains seeping into the hungry earth.

"It's just as well I came this way, Gunga Din. If that's the way

vou deliver my water, well-"

"No, no, Mister Widor. That is . . ." Tallon stopped miserably. What could he say with those two damning pools of the precious liquid he had spilt spreading round his feet?

"I gave you a job when you landed on Elysium, dead broke and sick with fever and this is how you repay me. I find it hard enough to make both ends meet from my well as it is, without—"

"I promise it won't happen again, Mister Widor—"

"All right. See that it doesn't. You can deliver those cans now, and make sure Andy doesn't see they're not full to the mark. Now get going."

Tallon hooked his arms over the yoke across his neck and walked carefully along the spaceport fence towards the crumbling terminal building, conscious of Widor's glare on his back. His long, sensitive surgeon's fingers tightened on the yoke. The big man did all right

with his well, Tallon kicked a spurt of dust viciously,

After the truce with the Palladians, Earthmen had rushed to colonise all the worlds newly discovered and undeveloped because of the Palladian war. Elysium had ranked high on the wanted list, mainly because of the medicinal value of the cats' venom, until the immigrants had tangled with the moss. Now the planet was an entry in Earth's 'problem' file, with the original settlera grimly eking out an existence farming the little land they had reclaimed from the moss and earning interstellar currency shooting cats. New arrivals were few and far between.

Inside the adobe terminal building Tallon thankfully set down his water cans, rubbed a calloused hand over his back. The only spaceline employee on Elysium, Andy, fat and shirtsleeved, came wheezing importantly over trailing cigar smoke. The little shack seemed full of

"You can't leave those cans there, Gunga Din. Take the water

out to the tank. Come on-look lively."

"Okay, Andy. Just taking a breather." Tallon stared at the newcomers, sizing up the greying, space-tanned face of the man, hardly seeing the woman. He might be from Intelligence. Tallon shivered.

He picked up the cans, plodded to the back, began to empty them into the galvanised iron tank. He heard a low gasp, then a voice.

"Rex Tallon! Why, what are you doing here?"

Tallon swung round so hard water slopped unheeded against his bare knees. He glared at the woman with such an expression of terror

that she drew back a step.

"Sue! Sue—" He got out at last. "Keep quiet, for God's sake! Don't say anything !" Tallon shot a quick glance at the rest of the room's occupants, his gaunt grey face sticky with sweat. They appeared engrossed filling in forms, the children giggling together. "Pill meet you tonight at the schoolhouse. You don't know me, Sue!"

The rest of the water splashed haphazardly into the tank under his shaking hands and Tallon hoisted the cans, disappeared out the back door before Sue Hellinger had time to say anything more.

Of all the luck. The one woman in all the Galaxy to be the new schoolteacher and it had to be Sue Hellinger. If she told anyone that she knew Tallon, that he was a deserter from the Space Medical

Service he might as well walk into the moss.

That is, Talion slowed down, his heart thumping painfully, if she knew. The news of the fatal operation on an admiral in the heat of a space battle and his subsequent desertion might not have got around the married quarters of the Navy bases yet. And anyway, why was she here, on this primitive back number of a planet, without her husband. Mark Hellineer? There was something wrong heat of the property of the pro

Tallon cursed himself for forgetting to take a drink before delivering the water. That was Widor. Now he had the prospect of a half hour walk back to the well, situated on the north side of the compound, feeling as dry as the choking dust all around. It was cheaper for Widor to hire a human workhorse like Tallon than to run another of the little battery operated trucks. They cost money. Widor would have to pay hunchbacked Max to have the accumulators charged down at the wind-generator and the well-owner preferred to use his own truck to contact his outlying customers on the struggling, scattered farms.

Tallon cocked an eye at the four tall lattice masts towering above the clustering huddle of adobe dwellings, seeing the vanes turning sluggishly in the vagrant wind. The generating station was vital to the whole community. Together with smaller stations installed on a few of the isolated farms, it provided current for the ring fences which

alone stood between the settlements and the moss.

It was only when Tallon checked the time from the double suns that he had a moments doubt whether Sue Hellinger would know what he'd meant by 'tonight.' Tresco was setting, spilling golden orange light low over the ground, still pouring a warm glow into the blue green shadows cast by Bryher, high in the zenith. In about seven hours Bryher would set, followed by seven hours of true night, then Tresco would rise again to the boisterous rosy dawn of a twenty-one hour day.

Sue was smart, she'd soon become accustomed to the idea of twentyone hours of daylight and seven of darkness. Tallon had taken a little time to adjust, but now he worked the whole day and slept uneasily at night, just as if he had his problems to work out in a normal twentyfour hour clock.

"Hey, Gunga Din! Got any water left for a sharp-eyed cat

hunter?

Tallon grinned and saluted the rangy figure of Felix, welcoming the interruption to his thoughts. As he slipped the yoke from his shoulders and set the cans down with a grunt of relief, he noted a new catskin cap on the other's tousled head.

"Sorry, Felix, not a drop. Just cussing my own stupidity in not

drinking before I delivered in to Andy."

"Hah." Felix unslung his high velocity rife, clean and shining wind in the double suns' rays. "Always said you were dumb, Gunga Din. Now, if you had any sense you'd come along with me cat hunting. That's where the money is on this lousy planet." Felix jerked his bearded chin towards the distant ring fence.

"It's money I need, not sense," Tallon replied morosely. "You know I can't afford a rifle, let alone the gear—not on what Widor pays,"

"I've told you I'll grub stake you on a trip-"

"Sure. And what happens if we don't shoot enough cats for me

to pay you off? I'd be working for nothing."

Felix shifted his wad of chewing gum to the other leathery cheek.
"Well, son, that's true. But you ought to take the chance. After
all. I usually bring in enough poison to make each trip pay off."

"You've had the experience-"

"I hadn't when I started. I was just as much a greenhorn as you. And vells me the price of poison's gone up, I made a bit extra on the last trip. Look, Gunga Din, why don't you get wise to yourself? Let me stake you on a trip, we can go it together, and, anyway, I need a partner now Jake's gone."

"Yes, sorry to hear about that. Cat get him bad?"

"Buried its fangs in his thigh, above his boots. Didn't see it at all in the spore cloud afore it was on him. Poison killed him in ten seconds." Felix touched the new catskin cap. "This is the varmint

here. Sorta poetic, I reckon."

Tallon looked down, trying to control his trembling. He wasn't a coward, he tried to tell himself. It wasn't just the though to the cat's venomous fangs that deterred him from accepting Felix's offer. Becoming a cat-hunter represented a way to make quick money, offered the chance of escaping from Elysium. But where would he go when he'd enough money to pay a passage? You couldn't keep on runnison all the time. Tallon tried to excuse himself by the thought that he was refusing out of desperation, then the image of Sue came into his mind. He looked up, face drawn, and slowly elenched his fists.

"Listen, Felix," he said slowly. "I'll see you tomorrow morning and give you my answer then." He picked up the empty water cans, not seeing them, his mind out in the deep clean spaces between

the stars.

"Well, all right then." Felix rolled his tongue round his mouth, space out the gum. "Now come on to the Puss in Boots and I'll stand you a drink. I'm parched."

They were just ducking their heads to enter the low, dim, smelly adobe tavern when Tresco sank beneath the horizon. A few large raindrops starred the dust of the street, raising the fresh, characteristic odour of rainy earth. Oceasionally it rained on Elysium, always just at Tresco's going, a drenching downpour that lasted only a quarter of an hour and provided just enough moisture to feed the ever hungry moss. A wind began to rise, scattering dust before the rain bogged it down into a film of mud.

"Looks as though it's going to be a dirty evening, gents," greeted

Ed the barman, hands on hips at the tavern door.

People called the last five or six hours of Bryher evening. It made things sound more homely. Wind howled down the street, rattling shutters and slamming doors, twisted Ed's striped apron round his legs, flung a stinging handful of raindrops into Tallon's face. The vanes at the top of their tall masts spun in a flicker of blue-green light, their throaty whirr audible above the rising howl of the wind.

"Hunchbacked Max is doing all right out of this wind," Felix pulled his catskin cap off and leaned against the bar, hooking a foot over the

rail, making himself comfortable. "Two whiskies, Ed, straight." He cocked an eye at Tallon, who nodded without speaking.

The Puss in Boots held only one other customer, a brawny, black-browed, black-booted farmer at the far end of the bar. He looked up, now

thick lips curling back from stained teeth. The glass in his hand shook.
"Sure, Max is doing all right. He's making his pile all right,
enough for a passage and more, then he'll clear off back to Earth.

while we poor cast-offs will rot for ever on Elysium."

"Maybe." Felix tossed his drink back. "Likewise me."

Tallon took all this in with only a small portion of his mind. Sue Hellinger. Why? Would she talk? He began to wish he'd arranged to meet her before nightfall. And this business of cat-hunting with Felix. The mere thought made him feel weak. Then he became aware that his glass was empty. He fumbled out his last coin, but Felix stayed his hand, gave Ed the order.

"I hear they're going to send out an atomic pile so's we can have all the power we want—huh." The farmer swirled his drink disgustedly. "We'll never see no pile here. Not while Max runs the generating station. Or Widor hauls water, either. Earth hasn't got any materials for a non-Navy settled planet. They ship you out free then

charge impossible prices for return,"

" I heard the pile was being shipped any time now-" began Tallon mildly

"Bah! What you heard is what anybody could hear. I'm telling you. Earth won't send us anything we don't force out of her. They want the cat venom badly; but they want it on the cheap. As long as we farmers can scrape along supporting the community, you'll get no help from Earth. And look at the murderous price they charge for machinery! Even the colonists back there are getting wise to the place now."

"Which reminds me," said Felix. "Who was the man who came

in today? Looked like a soldier."

"Him? Some fool soldier thought he'd retire to a chicken farmso he picks Elysium. Ain't that a laugh?" The farmer's mouth opened in a black and red guffaw. "Don't worry about him. What about the new schoolteacher? Real peach she is. Now if I wasn't married, with the wife expecting and her and the kids waiting for me to come back with the accumulators, well, I reckon I could do my stuff there."

"Oh?" Tallon's voice was cold.

"Sure. She's just waiting for a big strong man like me. Aching for it. Why her old man let her off the string-"

"That's enough. Shut up." Tallon pushed away from the bar, trying to discover why he should be making this fuss, wondering what Felix was thinking.

"What's the matter with you? She your woman or something?" The big farmer's hairy hand played above the hilt of a knife thrust carelessly into his waist band.

The farmer said something else about Sue.

Tallon blinked. He wasn't afraid of the big man. The bigger they come the harder they fall they had told him at Space Academy. No. he wasn't afraid, just a trifle concerned about that knife. It wouldn't be a fair fight.

" Just cut it, that's all."

"You lousy little punk! Trash. Good for nothing but carrying water. Talking to a farm owner like that-why, you-"

The rest of the farmer's conversation was lost as he charged on Tallon, waving his fists before him as though to brush Tallon away by the sheer power of his presence.

Tallon's face went grev as he stumbled sideways, attempted a clumsy swing at the farmer's head and felt a sledgehammer crunch alongside his ear which sent sparks and little black spots gyrating in his eyes. He sagged to the floor, wincing in anticipation of the next blow, Water streamed from his eyes and clouded his vision. Distortedly, he saw the farmer's heavy boot lift for a rib-crushing kick, saw Felix take a long stride towards the fight.

Then the lights went out.

Tallon rolled across the dusty floor and sat up in the darkness. A dervish wail of wind went howling past in the street outside, shaking windows, making the floor shudder. Blue-green shadows withed across the walls fitfully illuminated by Bryher's sickly light.

The door smashed open, rain and wind splattered into the stuffy room, drops of water sliced across Tallon's unshaven chin. A man had stumbled in, to close the door behind him on the night and lean

gasping against the panels.
"The towers are down!" The man's voice gobbled through his hoarse panting. "Wind blew 'em all over—killed the electricians.
Max is frantic. We've all to get up there and start pumping."

The burly farmer lowered his foot clumsily, blue light running in

rivulets of flame across the leather.

"But the power supply! I came in to have my accumulators

charged-if they run out my fence will come down-

"All right, brother." Felix's incisive tones cut through the room.
"We'd all better go and see what's happened. Max will have switched
the compound fence to the accumulators, but they can't last long.

Come on."

darkness outside.

"But what about—"
"Come on!" Felix pushed the farmer roughly towards the door.
Tallon felt strong hands under his armpits then he was hoisted to his feet and impelled in a rush into the blue-black swirling water-filled

They all ran up the street, slipping and sliding on mud.

The towers had gone over, one after the other. Tallon saw mangled bodies under lattice girders, saw the frail, white haired figure of the settlement's only doctor lying bloddied and crushed. Saw Sue Helinger, arms red to the elbows, kneeling by the side of writhing, moaning men. People pushed and jostled, flares casting a lurid gleam across white, frightened faces, glittering eyes. Shouts came blown on the wind, mud sloshed everywhere, more people came running up; the whole settlement was humming and vibrating like an overturned hive.

Impelled by his own sense of fear, feeling the urgency in the air,

Impelled by his own sense of tear, feeling the urgency in the air, Tallon found a place on one of the pumping bars, caught the rhythm and let his body rise and fall to the swing of it. Six men on either side, they forced the bars up and down, their energy cranked to the dynamos, creating a trickle of electricity to flow through the ring fence. Every outlet for power had been switched off except the fence. That was vital: if the moss got through, it meant finish for the settlement.

Blood drummed in Tallon's head, striving to force its way out past straining eyeballs and flaring nostrils, pounding against his ears, drawing down a scarlet curtain across the mad scene around.

He felt as though he had been pumping the bar for hours, yet reason told him that the time could not be above two minutes or so. His arms couldn't move anymore, his whole body screamed for surcease from this incessant torture. He ground his teeth down, not feeling any sensation, flogged his body to pump, pump, pump.

A hand on his shoulder, someone taking his place, taking over the maddening upsurge and downswing; arms half carrying, half dragging

him to fall on the mud, sobbing with exhaustion.

"That was a five minute stretch you did, son. Not at all bad."

Felix's sinewy hand guided a tin cup to Tallon's cracked lips.

Tallon sucked greedily at the water and saw Sue Hellinger drop wearily onto the mud beside him. A pang of pity smote him as he took in her drawn face and heavy eyes and he only half nodded as Felix moved off, calling over his shoulder: "Doing your job for a spell, Gunga Din."

"What's all this about, Rex?" Sue's voice was low, whether from exhaustion or from what he had said previously, Tallon didn't know.

He rolled the water round his mouth before answering.

"The towers provide electricity for the fences," he said at last. "The moss which grows everywhere on this planet has such a fast life and death cycle; it grows, spores, dies and grows again within the twenty-eight hour period here. And different clumps are sporing all the time, so that there is a continuous cloud drifting everywhere. Looks like a sandstorm."

"Yes, yes," interrupted Sue. "I didn't mean that-"

"But the worst part of it is," Tallon went on, ignoring what Sue was trying to ask. "The moss has almost microscopic roots which can break down and crumble the ground. I don't know if they secrete anything, but if they do it must be the Galaxy's most potent acid. The roots can bite into and shatter plexiglass. All we can do on this pioneer planet is to erect mesh fences and run current through. The spores and the moss, don't like a few volts jethed into them. We can keep the damnable stuff at bay—and that's all."

Sue was becoming interested.

"I had no idea-can't you burn the moss."

"They did, to clear the settlement area. But as soon as one section is burnt the wind blows the spores back over it and the devilish cycle starts again. The only way is to burn and advance behind an elec-

trified fence. The spores don't rise more than about ten feet in the air." Sue put her hand out and touched Tallon on the arm. The contact disturbed him and he moved restlessly, trying to forget the memories it conjured up.

"But what about you, Rex? Why?"

Tallon told her. Of the operation, the death of the admiral under his hands, the desertion. "I can't go back, Sue. They've branded me a murderer. I couldn't save an admiral during a space battle because I was afraid. This filthy little planet, with its moss and poisonous cats is as far as I've run so far."

"But you can't keep on running."

He finished the water in the cup.

"What happened to Mark?" he asked roughly, unsteadily.

"He died on Active Service," Sue said quietly.

Tallon threw the cup into the mud and rose, not looking at Sue, He turned towards the pumping bars and heard a man's name being called.

"Hans Nicholas! Radio call for Hans Nicholas."

A flicker of interest dawned in Tallon's eyes as he saw the bulky form of the farmer with whom he'd tangled in the Puss in Boots rise and lumber forward. The man had been pumping well, Tallon remembered. The portable radio was set up on a crate and Nicholas took the handset.

Tallon licked his lips and took a hitch in his shorts. Back to the pumping, back to see whether he could last six minutes this time. He'd probably lose the rest of the skin of his palms, but the fence had to be kept alive. Then he saw Hans Nicholas fling the handset into

the mud.

"My wife!" the farmer bellowed. "The baby's coming and noone's there. Where's the Doc?" Sue Hellinger rose in one swift motion. "Dead," she said softly.

"I'll come, Hans, I can do midwifery," "You can't, Sue !" Tallon grasped at her arm. "You can't go

through the moss, not now. And the cats. You can't go, Sue."

"Of course I can, You're a surgeon, you'll come?" "I can't." Tallon gripped his fists into two impotent knots. "I

can't. I have to stay here and help with the pumping." "But there are plenty of others for that. You're a trained Space

Surgeon, you can-" She stopped, looking Tallon closely in the face. Then she turned

away, her face white and set.

"All right, Gunga Din," she said tonelessly. "You don't have to

explain. Just keep on carrying water."

Tallon stared after her dumbly as she picked up the old Doc's bag, as she and Nicholas boarded the truck, as they went off in a shower of mud. He couldn't even try to analyse his own feelings; he was too frightened of what he would find there. In a blind fury of self loathing he flung himself at the pumping bars, sent them whirring madly up and down, thrashing every ounce of feeling and emotion from his body and mind, to stagger away and fall fainting to the ground. He slept fitfully, stirring and twisting. His dreams were not nice.

He awoke to Felix's hand on his shoulder. "Come and have a bite to eat, Gunga Din.

"All right, Felix. I need a drink." Tallon stood up, stretching, feeling aching muscles tingling, and then remembered. His arms fell hopelessly to his sides. Sue had very quickly found out what was the matter with him. She knew now the real reason for his flight to Elysium. She knew he was a coward. Tallon couldn't even curse, He followed Felix across to a little pile of boxes where the woman of the settlement was handing out bowls of soup and hunks of bread.

Slopping the soup down and tearing at the bread Tallon could see no hope for him in the future. He was a pariah, an outcast. He couldn't even live with himself anymore. No matter if he ran to the ends of the Galaxy, still he'd have the bitter thoughts, the despair, the

hopeless aching frustration with him.

He became dully aware of the radioman standing at his side drinking soup, the radio resting on a wooden crate. Tallon shuffled nearer,

"Any more news on Hans Nicholas' wife?"

"Some, Say, that schoolteacher is sure some woman! She came on the air just now, said she was having a little trouble, said she'd call back. Wasn't she talking to you-?"

"Yeah, what about it?" Tallon snarled from his emptiness and

grief. His hands were shaking.

"Why, nothing I guess." The radioman set his empty soup bowl on the crate and a voice came tinnily from the handset. He picked it up, thumbed the pressel.

"Go ahead, Mrs. Hellinger,"

Tallon listened, wanting to tear himself away, yet unable to move, every muscle taut.

"Mrs. Nicholas is in a bad way. I'm afraid it'll have to be a Caesarean and I'm not sure-yes, Hans, coming."

Sue's voice trailed off and the radioman put the handset down silently. He looked up, face white.

"Caesarean? That's dangerous, isn't it?"

Tallon shut his eyes. He could visualise the scene out there on the isolated farm, the accumulators running low, the lamps dim, the kids crying in the next room, Nicholas lumbering about distractedly, watching the fence, watching his wife lying on the bed. And Sue.

Sue couldn't handle an operation like that.

All his talk about having to stay and pump had been a cloak to deceive himself. He knew be was scared stiff of the moss and the cats. If it wasn't for the vital need of cat-venom for space-rheumatics and allied sickness the entire population of Elysium would pack up and clear out. Earth would have no need to charge exorbitant prices for return passages, would evacuate them all to the evil smelling alums on the overcrowded planets back home. They'd go.

Or would they? Or would men like Felix and Widor prefer to stay on Elyaium, where, in spite of dangers and difficulties, life was their own? Tallon didn't know. He kept seeing the image of Sue, young and gay, laughing and surrounded by the trim space cadets from the Academy. Seeing her leaving the ballroom on the proud arm of Mark Hellinger, and seeing himself going bitterly to the bar to drink forgetfulness.

A 1

And now, after all these years, he had failed her.

The handset crackled, and Nicholas' voice came with its rumble pitched into a whine.

"Is anyone listening? For God's sake help us! Mrs. Hellinger has had an accident. My wife . . . Isn't there anyone there who

knows something-"

Tallon didn't hear any more. Something big and black had burst inside his head and showered a spreading rain of hot fragments into every corner of his brain. He wasn't fully aware of what he was doing. He found an electric truck and clambered into it, gashing his shin, the bright blood running black and purple in Bryher's fading light.

Somebody—Felix—thrust a pair of moss shoes into the truck; someone else buckled a gun-belt round his waist so that the strap bit into his stomach. Tallon didn't feel a thing. The truck surged madly

forward.

Outside, with the fence guards already swinging the gates back into circuit, Tallon remembered to switch on the protective mesh around the truck and he put the face mask on with hands that were steady had spores lodge in their lungs. Bryher was just slipping below the horizon, a horizon composed of billions of gyrating, swirting, dancing spores. They covered the planet like a blanket and underneath them their parent mosses grew and spored and died and grew again on the humus they made themselves.

Tallon's head was lost in the thick envelope of spores, he followed the flickering compass needle, keeping the truck pointed due east, knowing that if he missed the glimmer of light from Nicholas' farm he could circle aimlessly until his batteries ran down. After that—human flesh made as yood a humus as dead moss.

Switching on the headlights did no good. They just illuminated twin hemispheres of spores all streaming towards him, pouring down and up over the electrically charged mesh like rain drops against a windscreen. Tallon switched the lights off. He was still in an exalted state, not quite conscious of what he was doing, unaware that he possessed a body.

The cat changed that.

The thing came loping up alongside the truck, just within vision, its eyes glittering green in the last rays of light falling feebly through the spore cloud. Tallon could see the thick hair bristling as the rapid motion of the eat's body produced static enough to numb the moss and allow free passage. Tallon had heard stories of cats' burrows being found, but most were apocryphal. The cats slept on the move, there was no basis in fact for the burrow stories.

Tallon stared in fascination. The realisation of his position seized

him—what was he doing out here, alone in this mad world? He couldn't go on, he'd have to go back and admit failure. It was not quite dark, with nothing to be seen in all the world and only the rattling clank of the tracks to remind him that he was alive. The spore-laden night closed in on him, he was perspiring freely and his face was on fire. Irritatedly he snatched the mask away. Stupid panicky fool. The mask was not needed with the mesh to protect him. Calm down, he told himself, he only had to sit and wait whilst the truck forged steadily onward.

The silence swept over him like a physical blow.

He fumbled the mask back on with terror stiff fingers, found a flash, checked the ammeter. Zero. Tallons hands shook uncontrollably, he made little, whimpering gasps, horrible, tiny sounds. He was stranded.

When Tallon recovered some measure of self control he found his lower lip streaming blood. It lay flat and salty on his tongue. The mocking image of Sue danced hazily before him seeming to beckon with open arms and then to turn away, contemptuously saying: "All right, Gunga Din. Just keep on carrving water."

This was the end of the line.

Now that he had become reconciled forcefully to the idea of death Tallon realised that he wasn't worrying about the prospect any more. Death held terrors for him only when it was unknown, something to be shunned and feared. Now that it was here, he saw with a shock of clarity, it didn't really matter after all. He was a failure, his death wouldn't affect the Galactic wheeling one jota.

Tallon grinned, the face mask itching against his unshaven cheeks. Maybe there was a way. They used to say any planetfall was a good

one if you walked away from it.

Certainly he was scared. But he had to do something in his miserable life to prove himself—a man could be pushed just so far, and after that it didn't matter much either way. He wiped a trembling hand over his sweat-smeared forehead above the mask and pulled the accumulator from the radio set and put it on the seat. He propped the flash on the dashboard whilst he tore off sections of mesh and wired them into a rough framework that would cover his head and reach to his ankles. He put the moss shoes on, flat snow-shoe things with a maze of copper wires underneath.

He connected up the battery, slung it on its strap across his back, pulled the mesh covering around him and hitched his gun belt forward aggressively. The metal was cold under his fingers as he lumbered clumsily over the side of the truck and dropped onto the moss. The moss shoes pushed down with each step, giving him the sensation of

walking on an air-filled mattress.

He shone the torch round in a rapid are, watching for the tell-tale twin orbs. For a moment he thought the cat had gone, until a pair of green lamps sprang sharply out of the darkness. Holding the torch steady with his left hand, Tallon drew the gun, hoisted the mesh, raised the gun, fired, and dropped the mesh in one smooth continuous motion.

In the corruscating flare the cat vapourised.

Tallon grinned without humour, turned and plodded over the moss. God knew how many spores had begun to grow on him: but his job now was to reach Sue.

Groping forward, each step a struggle, trying not to entangle his feet in the mesh hanging around him, mouth sucking draggingly at

the mask, Tallon lost all sense of time.

Three times he thought he'd come to the farm before he saw a light shining steadily before him. He didn't clearly recollect Nicholas opening the fence, leading him up the path to the homestead. All he could see was Sue, standing straight and sombre on the doorsten.

"I hoped you'd come, Rex," was all she said.

They bathed Tallon in turpentine, dried him, gave him a shot of whisky, took him into the room where the woman lay. He forgot to

ask Sue about her accident. All he saw was a woman undergoing her supreme trial, preforming the function for which she had been created. Men had other things to do for which they had been created and

most must feel fear at the time.

The instruments felt good to his hands. He had been only just in time. With sure, deft movements, his brain icy and detached, he performed the operation, giving his orders to Sue in a low mechanical voice.

When it was over they went to the doorstep and Tallon saw that

Tresco was tinting the horizon with orange and red gleams,

They smoked a cigarette together, relaxed and empty of tensions. Tallon closed the door on the sound of a crying baby and Nicholas' broken words of thanks.

"I might have guessed you'd had no accident, Sue," Tallon said

at last.

"I knew you once, a long while ago, Rex," she answered quietly, leaning against the door, smoke from her cigarette lying in coils above her hair. "I didn't think you'd changed all that much. You've found your courage again. That's the important thing."

"I didn't find courage," Tallon contradicted sombrely. "I'm still a coward. But I found something to make me forget the fear, something stronger." He reached out and touched Sue's hand. He was speaking now as he'd spoken before, long ago, before he'd tried to

run away from phantoms that lurked always just out of reach. "Yes, You've found yourself, Rex. You can go back now, face

what you have to." "I don't know." Tallon drew thoughtfully on his cigarette. "I'm

finished with space, Sue. Elysium is my home. They don't worry too much about deserters on the frontiers. I know now that wasn't really worrying me-I was afraid of what I thought I really was, Elysium can be conquered, by men like Nicholas here, and Felix, and, ves, Widor and hunchbacked Max."

He stretched and flipped the cigarette away.

"I think I'll stay and help them,"

"I'm staying," Sue said, looking at him steadily. "I have my life to start afresh, too,"

Kenneth Bulmer

Carping Critics . . .

Critical summaries and reviews of science fiction books are just reaching the 'level' of cynicism imposed by Fleet Street journalism back in 1938 in connection with the more serious nature of astronautics. My press cutting book of that time is filled with quips, carroons and sastirical write-ups by the "gentlemen of the Press" who found the possibility of space flight a decidedly facetious subject with which to fill their columns when news was short. Science fiction, in Britain at least, must be prepared to weather a similar storm. Not because prominent reviewers are unintelligent—they are, indeed, very intelligent men and women—but solely because they have no conception of the gulf between the writings of Wells and Verne and the modern works of Clarke, Bradbury, Henilein, Sturgeon and others.

The contemporary reviewer has only one yard-stick by which to assess his opinion—literary value. As soon as he steps outside this orthodox framework and attempts to "explain" why science fiction is so popular or what it is about his relative values are worthless and he becomes confused. The development of science fiction literature during the past thirty years is such that only those people who have studied it continuously during its growth can apply any measure of judgment upon stories now being published. Such judgments and comparisons are applied solely against other works in the same field and not avainst remeral literature. Which is where today's reviewer

has the laugh—for the moment.

The laugh was very one-sided in a recent ten-minute B.B.C. discussion on science fiction in which the panel of five noted critics had been summarising Arthur Clarke's recent book Childhood's End. To them both book and medium appeared as a rather distressing and bewildering experience, especially as two members admitted no contact with the genre since the days they had read Verne and Wells. The discussion undoubtedly confused several million listeners when Chairman Sir Gerald Barry saked for an interpretation of "the psychological aspect of this new cult of science fiction." The general concensus of opinion centred round "escapsism," but led through a bewildering array of statements based upon despair at world conditions, the H-bomb, and suggested that science fiction was "a debased lay version of God . . . Clarke's Overlords were the personification of the Second Coming." EDITORIAL 95

Radio critic Tom Hopkinson put forward the most sensible suggestion—that the spirt of adventure needed wider horizons to explore—but was talked down by the Chairman and book critic Alan Pryce—Dones, who couldn't understand why a book such as Clarke's could sell by the hundred thousand and many best novels go out of print through lack of sales. This was just another instance of the critic being completely out of touch with the modern market. Mass market appeal has brought the price of hundreds of good books down to a level where everyone (especially in America), can purchase them for a few shillings. Such editions have a break-even figure of about 25,0,000 copies before the publisher starts making a profit and the advance royalies to an author published in such an edition is at least \$5,000—far more money than most leading novelists can hope to make from an expensive book on the market for several vears.

Alfred Bester, author of *The Demolished Man*, one of last year's most outstanding novels, amplified this statement when we met for lunch recently, by saying that it was hardly worthwhile an author striving for hard-cover publication these days when so much more money can be earned in the paper-backed field. He pointed out, however, that for permanency publishers were also producing small case-bound editions of these same books but obviously such editions

were limited.

The B.B.C. panel eventually decided that while science fiction was ingenious and inventive it lacked imagination! It was easier to write an imaginative story about the Tottenham Court Road than it was about interplanetary space—a fact every author knows only too well, for he has to skillfully build a picture of his future civilisation into the framework of his story without being too pedantic; obviously the reading public cannot compare a present-day known setting. The Tottenham Court Road of five hundred years hence will be vastly different to that of today—if it is still in existence.

Summarising the discussion, Alan Proc-lones concluded by saving

"I suppose that science fiction is going to be the new fashionable high-brow craze just as detective novels used to be." To which remark the Chairman fervently replied "Not for too long I hope."

When can we expect to see prominent British critics giving rational summaries of this specialised field similar to those given by Basil Davenport for the New York Times, H. H. Holmes for the New York Herald-Tribune and August Derleth for the Chicago Sun?

John Carnell

Space warfare will call for many ingenious machines to control fire power but victory will basically be achieved by the side with the greatest adaptability to space conditions — plus the stability of the lowest common denominator in the ship — the gunner.

THE FIREBIRD

By Alan Barclay

Illustrated by LEWIS

Ninety-eight light years away from Sol, a hundred million miles from the star Gemini Beta (sometimes called Denebola), and about forty million outwards of the solitary planet of that star, there was a small inconspicuous flicker of light and dark—a flicker that finally steadied down and became a dark stationary blob in space.

The dark blob was the battleship Euripides of the Sol Confederation Fleet, and the flicker occurred as it slowed from hyper-speed at the

end of its long journey out from Sol.

Except in official reports (and even then not always), the ship was never called by its proper name. It was known throughout the entire fleet and large volumes of space as the Ripper. The Ripper had as its captain a certain fair-haired pink-cheeked chubby-faced young Englishman entitled—believe it or not—George Edward Clarence Jackson. It was logical that his crew, and quite a number of other people besides, called him Jack the Ripper.

But not, of course, to his face.

The Ripper had a fairly modern Magney-Freysinn hyper-drive, and in addition orthodox atomic motors capable of giving a six-g acceleration for as long as the crew could stand it. It had a nose turret mounting three twenty-seven inch rifled projectors, and port and starboard

THE FIREBIRD



waist-turrets capable of full circle rotation in the ship's vertical plane and mounting twin-opposed guns of rather smaller calibre. There was a two-gun turret in the rear with a narrow cone of fire much restricted by jets and stabilizers.

There was food supply for six months, ammunition, a maze of navigational, communications and fire-control equipment, a crew of one hundred and forty-seven, including officers—and there was Lazlo the firebird.

Lazlo bore the rather archaic-sounding title of master-gunner and was of course one of the hundred and forty-seven members already listed, but such a unique speciman of humanity should not really be lumped in with a crowd of relatively ordinary persons. At the moment the Ripper emerged from hyper-speed, Lazlo was lying flat on his back on a locker in the forward gun turret. He was watching his gun crew carry out routine oil-and-polish duty, and occasionally exhorting them to further efforts. In this he was acting strictly contrary to orders which required that he himself should do the oil-and-polish personally, assisted as necessary by the crew.

"Any minnit now," Lazlo informed his men, as he heard the starting rumble of the atomics and the pressure of acceleration, "Any minnit now Jack's goin' to talk to you chaps personal over the ship's blower.

He's goin' to tell you about our mission, which is sure to be some simple child-like task bearin's everal of the aspects of mass-sucide.

He'll also chuck in a few heroic remarks about the traditions of the service."

Lazlo was right. He nearly always was in such cases.

The ship's intercom gave a clunk and a buzz.

"Attention! Attention all! This is the Captain speaking."

"You blokes want to pay close attention," Lazlo said, nodding in the direction of the instrument. "This is liable to be real inspirin'."

". . . the ship is now in an approach-curve towards our destination,

which is the planet Gath of the star Gemini Beta . . ."

The turret crew had stopped work and were listening respectfully.

Lazlo was still lying on his back. His eyes were closed now.

"As you all know," the Captain's voice went on, "Gath is a frontier planet. It lies pretty far out on the fringe of Confederation space. The inhabitants are not of human origin, and there's no powerful reason why they should throw in their lot with us rather than with the Catr-ongans. In fact, there's much to be said in favour of their joining the Catr-ongans. For if they join us and get beaten, the Catr-ongans will slaughter them, whereas if they do the opposite and get hammered, they know we won't be so tough with them. So, to say

the least, they're inclined to sit on the fence.
"But the Confederation wants Gath in the alliance. It wants to

use Cath as an advanced patrol base and servicing station. Hence our visit. We're going to let them see a Confederation battleship for the first time. We're going to show them we've the means to defend them if they throw in with us—and—" the Captain's voice became like the cooing of a dove, "— we're going to give them an actibition of smartness, discipline, good behaviour and dignity as well. No need to warn you against brawking—" He was warning them just the same. "— Or drinking, or getting fresh with the local girls. I know I can depend on every one of you, but if I hear of any man disgracing this ship and the service..." His voice grew more than ever like a cooing dove, "—Then I'll speak to that man personally."

THE FIRERIRD

"I bin spoke to personally by Jack a couple o' times," Lazlo commented reflectively. "It's a thing you swabs want to avoid. I don't like this briefing much," he continued, "There's nothing about battle, slaughter and sudden death like there usually is. Makes me think something special nasty will turn up later.

The planet Gath had a space port, but not apparently very much knowledge of interplanetary signal codes or homing procedure.

After listening to the flood of incomprehensible chatter mixed with equally uninstructive translations into out-world English, the Ripper's captain switched off and turned to his navigator. "Signal 'Instructions understood, and thank you. Making descent on ship's instruments—explanation later.' And don't set us down on top of anything. In your spare moments you might think up a polite reason for not accepting their landing instructions."

The Ripper slid thunderously but smoothly down through low cloud, and settled on the bare burnt earth of Nordsthal space-port. The navigator ran a finger along the bank of switches, cutting power,

and breathed a sigh of relief.

"Good show, William," the skipper told him. "You haven't sat down on top of another ship yet, have you?"

The navigator wished Jack the Ripper wouldn't make that sort of

joke. He also disliked being called William.

The skipper flipped the switch of the intercom.

"Carry out routine checks and overhauls," he ordered. "No

planet leave at present."

"Mr. Manson," he went on, "I expect a visit from our Confederation representative on Gath immediately. Will you lower the lift-cage

and make ready to receive him?"

Mr. Manson went off. Jack the Ripper walked over to the side port and looked out. It was impossible as yet to see very much for the whirling clouds of dust and steam set up by the jets had not yet subsided. The nearby town was completely obscured, but above the dust cloud there appeared the tops of a range of mountains about fifty miles to northward. Nearer at hand—within ten miles or so—Jack discerned a number of stubby metal noses sticking through the haze

"What do you make of these?" he asked the navigator.

"They're ships, sir," William told him.

"Could be," the skipper admitted. "I'll have to see more than the tips of their noses before I can recognise the type. Cargoes from Cappella perhaps. Three at a time is unusual, though."

The Confederation Ambassador came aboard that evening. He had flown from the capital city on learning of the Ripper's arrival. He was

a young man-a Martian of Spanish parents, by his looks and dress,

and he was worried.

The captain of the Ripper was accustomed to seeing civilians of this sort fuss and worry. He believed they had to look anxious and overworked in order to qualify for promotion. He himself continued to look young and pink-cheeked and calm.

" Have a seat Mr. Salas," he invited.

"This is a bad business-a very bad business indeed," Salas said, taking the chair indicated. "You saw the ships, of course, I endeavoured to send a signal, naturally-to be frank, I scarcely know what to advise . . ." "Do tell," the skipper urged. "About the ships first . . . What

"But you must have seen them," the other protested. "They're berthed only five miles off." "You mean these cargoes? I've only seen the tips of their noses;

darkness fell before our dust had settled. What about them?" "Cargoes?" the Ambassador spluttered, "Cargoes! They're

Catr-ongan battleships."

There was an instant of complete silence.

Manson the first officer and William the navigator each thought this piece of news about equivalent to saying that none of them would see the green hills of Terra again.

"Really?" the skipper enquired mildly, setting a light to his cigarette.

"Three Catr-ongan ships?"

"Five," Salas corrected irritably. "They arrived ten days ago. Their Commander—I suppose you would call him Commodore—is visiting at the capital city at this moment."

"Doing what?" the Captain asked.

"Being excessively polite and correct and well-behaved in a threatening and ominous manner," Salas explained bitterly. "He doesn't have to do more. His five ships could destroy every city on this planet."

"And the locals-what do they say?"

"I honestly believe they're inclined in favour of the Confederation . . ."

"They ought to be. We've been very tender with them-not even passed on any Earth-type bacilli. But like the rest of the Universe no doubt they've a strong inclination to remain alive."

Salas indulged in a worried pause, then continued, "My opinion is, that before the Government here is forced by the Catr-ongans to order you to leave-thus creating a breach between themselves and

the Confederation-you should blast off."

"Sound advice," Jack admitted, lighting another cigarette, "but contrary to my instructions. I'm ordered to make a show of strength and convince the Gath-ites that the Confederation is able to defend them."

Salas looked more irritable than ever. "All very well, but quite

impossible in present circumstances."

"Will you do something for me, Mr. Salas?" Jack interrupted.

"You have spies and informants among the natives, I'm sure; all
Confederation agents have. Get me particulars of these ships; their
maximum acceleration; their minimum turning circle; their armament;
calibre; muzzle velocity; nature of mountings."

"These Catr-ongans aren't humans, you know," Salas pointed out.
"I know—but they're sure to make statements about their ships occasionally—even if they do so by dumb show or smoke signals.

Get your spies to listen."

"Very well, Captain."

The Captain sent for the Quartermaster.

"You can arrange for parties of twenty to have leave in town every day from now on, Mr. Jones. We'll hire a local ground car to provide transport."

"Yes, sir. Thank you, sir."

"I expect you know every member of the crew like a father knows his children, eh, Mr. Jones?"

"That's right, sir; just like a father, sir."

"Then you know the bad boys—the men who'd get a bit drunk and since too loud, and talk a bit, and boast, and make us appear to be a slack and undisciplined ship?"

"I know them all, sir."

"Right—then be sure to send some of these men out with the first party—and with the second, and the third." The quartermaster never batted an evelash.

"I see what you mean, sir—make the enemy think we're a toffee-

nosed bunch of no-good slops."

"Exactly—I couldn't have expressed it better myself, and among these scalliwags send one or two who'll stay sober. I don't expect any Catr-ongans will walk right up to you as you sit in a pub and ask what calibre of guns we mount—but they might hire locais to pop such questions. If they do, I want the questions answered—and here are the answers." Jack held out a sheet of paper to the quartermaster. "Don't worry; none of it's true."

"Beggin' yer pardon, sir-" Jones glanced at the notes, "-some

of it seems pretty near."

"It's just near enough to appear to be true. You understand what I want? Wallace and Norman are the men to do this sort of job, don't you think?"

"Yes. sir—and what about Lazlo, sir? —Locked up?"

"Let him out with the rest; let him do his stuff as usual; give him a big build-up with the natives . . ."

"Don't have to, sir. Lazlo builds himself up."

"True enough—better detail two men to stay by him and see he doesn't get a knife in his back."

The people of Gath were humanoid. They were small sized people and looked like extremely wise monkeys; their expressions could change with lightning rapidity from the happy grin of a carefree child to the suicidal scowl of a baboon in a rain-storm. Since their planet had become of recent years a sort of freight junction of the spaceways, the inhabitants of the space-port town of Nordsthal had learned to provide entertainment for visitors of all races.

The liberty men of the Ripper's crew flocked down the main street, round the market stalls, into the shops, and inevitably gravitated at last into the largest and most garishly illuminated bar in the town. Here were spicy exotic foods, strange drinks, and queer jerky music as well as familiar Terran songs sung in odd accents—and rather

oddly-shaped dancing-girls.

The Ripper's men congregated round tables at one end of the great room. They had been living on dehydrated foods for two months so their first interest was for a more normal diet. For about an hour they were relatively silent apart from exclamations and explanations about the more unusual dishes and the sounds of mastication. Then they been to loose helts and lean back in their seats and look around them.

about the more unusual disnes and the sounds of masucation. Then they began to loosen belts and lean back in their seats and look around them. There were a considerable number of natives in the place, one or two Terran types, and seven or eight tall thin yellow-skinned beings

sitting together round one large table.

"These are Catr-ongans," a monkey-like waiter told them. "They

come from the ships."

This piece of news was passed swiftly round from table to table and the Ripper group turned to look at their enemies. The Catt-ongans were tall, thin-limbed and quite hairless. They wore very little in the way of clothing and their skins had a brassy yellow sheen.

"So that's what they're like."

They saw that the Catr-ongans smiled and nodded to each other, and looked across at the Ripper men with equal curiosity.

"They look quite decent and ordinary. How come we're fighting

"It's mostly a case of them fighting us whenever we meet, and us fighting back in self defence," an N.C.O. explained. "They fight any-body any time—their sort of civilisation makes them that way—I rather think they do it for fun the same as we go to watch ball games and other entertainments."

"Can't our government get together with theirs and fix something

up-the Galaxy's wide enough for both, I suppose."

"They just don't understand what we're talking about. As I say, it's their notion of fun."

Lazlo was a man who did only one thing at a time. Up till now he had been eating—shovelling food into his big mouth as fast as he could, chewing and grunting and belching. Now he passed from eating to drinking. Not being a very intelligent sort of person he had to tell one of his pals to ask the waiter if there was any whisky. There was, the waiter asswared them grinning, and fetched it.

Lazlo punished the bottle in silence, then he began to look around him and to listen. He heard what was being said about the Catroongans. He understood only part of it but he scowled and mutters.

to himself, and tugged at his collar.

At last he pushed the bottles and plates and glasses away from him and got to his feet. The others watched with pleasurable anticipation.

Lazlo was ready now to begin his act.

He walked a few steps away from the little group of tables. He stood swaying a little and blinking out of little button-like eyes. His uniform tunic was open, exposing a gorrilla-like chest covered with black hair. His long arms swept round the adjoining tables scooping up plates. He began to throw the plates in the air and catch them. To begin with he set four plates spinning in the air, then he flicked them higher, while with lighting snatches he picked others off tables and tossed them up also. In the end he had eight aloft.

He quickly tired of this game, however, caught the plates in turn and set them back on a table. The Ripper group cheered him on. The local people in the restaurant who had turned to watch applauded discreetly. The Catrongans over against the far wall merely looked

contemptuous.

Lazió selected a number of table knives. They were long sharppointed affairs. He collected eight in one hand, arranged fan-wise and point outward, while he balanced and poised a ninth in the other. Spreading his short legs apart and swaying slightly he looked round the room until his black button eyes lighted on a picture on the wall. It was a very formalised representation of a native animal. Most of the customers were watching him now. For a second or so his arms were a blur of motion, while from one hand a glittering stream of knives shot out to land thud! thud! thud! right in the middle of the picture.

There was quite a lot of applause. Lazlo began throwing goy-fruit, a scarlet egg-shaped fruit native to Gath, up in the sir and splitting them with knives. It was observed that the knife struck the fruit precisely at the instant when it was at the top of its flight, neither rising nor falling.

Some of the local people, with delighted grins on their big mouths, began to tug the sleeves of the Ripper men to ask who this wizard

might be. The Ripper men were delighted to oblige.

"He's our Number One gunner," they explained proudly. "Best in the fleet. Can hit anything with anything. He can hit a chaser missile with a ship's gun just as easy as he's hitting apples with throwing knives now. He'll do it upside-down, in a dive, in a four-g acceleration, any time, any place, any sort of weapon."

Once Lazlo felt he had effectively and sufficiently informed all present that he was Lazlo the Firebird—once everyone seemed to know there was a man of note among them, he sat down and went on with

his drinking.

The following evening he gave an incredible performance with a pair of hand guns—not modern needle guns, for that would be too

easy for Lazlo, but with old-fashioned automatic pistols.

Local people began to crowd into the restaurant just to see Lazlo. In a few days there could have been very few people in Nordsthal, human, local or outlander, who had not heard of Lazlo. The town buzzed with stories of his prowess.

Usually there were a few Catr-ongans present. They watched and listened, but did nothing. Just the same, two members of the Ripper crew—men with a curious inclination to remain sober—always stayed

near Lazlo.

The first time Ambassador Salas had visited the ship, Jack the Ripper thought he looked like a man who was pretty well over-borne with cares. That was nothing to his appearance the second time. He chain-smoked. He tugged the lobe of his ear. He frowned till the creases across his forehead were about an inch deep. He fidgetted.

"You're worried about something?" Jack the Ripper surmised, with

oncern

"Worried?" the other echoed. "Worried?" His voice rose to a squak. "When a solitary Confederation ship is squatting within spitting distance of five of the enemy?" "But that isn't your worry—it's mine. In fact, I might get a little cross with you for trespassing on to my worry-territory. What news have you for me?"

Salas uncreased his forehead a little and became businesslike. He

produced a sheaf of notes.

"There's the data about the enemy ships," he explained. "The Catr-ongans don't talk spontaneously, but they have very little reluctance about answering chance questions from naive and admiring natives. I've indicated the source of each item, so you can assess its value."

Jack flipped through the pages.

"You must realise, however," Salas went on, looking worried once more, "that the Catr-ongans have now as much information about your ship as I have given you about theirs. Your men drink too much and talk too much." he added bitterly.

"The men must be allowed their drinks," Jack smiled.

Salas looked at him steadily. He concluded that Jack the Ripper could be nothing better than a fighting fool.

"What does the local government think about us?"

"They're worried sick. They reckon that if they so much as flutter an eyelash, they'll get themselves in the wrong either with us or the Catr-ongans"

" Have they thought of ordering us to leave"

"One official has asked me how long you might stay-that's all so far."

"What did you tell him?"

"I told him I was never kept informed on purely military matters; then I said you were unlikely to leave in a hurry for fear the Catrongans thought you were running away."

"Excellent, Mr. Salas," Jack nodded his approval. "What do the

Catr-ongans think of us?"

"To begin with they thought you knew they were already at Nordsthal even before you sat down beside them, therefore they assumed your one ship must be the equal in fighting-power of their five perhaps because you had some special weapon or technique. Now they suspect you didn't know they were here . . ."

"We didn't." Jack nodded.

"... And, thanks to a lot of careless talk by your crew, they now doubt whether you really have any weapons better than their own."

"Let me cheer you up a little," Jack said. "The information they've picked up about our fire-power isn't entirely accurate."

"I'm glad to hear it," Salas nodded, relievedly. "One thing more, Captain—there's a man of yours called Lazlo—Lazlo the Firebird or

something like that . . ."

"Ah!" the skipper exclaimed, "what about Lazlo?"
"He goes into town most days. He performs tricks—knife-throwing, pistol-shooting and so forth. He's become a sort of legend already. It's rumoured he's your ace-gunner and the best in the Confederation fleet "

"He's more than just a good gunner-he's a sort of genius in his own way." Jack said.

"I expect you'd be in a bad way if Lazlo accidentally got a knife in his back?" Salas surmised.

"We would indeed, so let's hope he doesn't. Well, thank you for your news, Mr. Salas. I'd be obliged if you'd keep me in touch with the way the situation's brewing up, sort of thing, eh?"

The situation brewed up considerably in the next few days. The crew of the Ripper guessed by now their skipper meant to fight the Catr-ongans ships. Some believed they had no chance of winning against such odds and got philosophically drunk on occasion for that reason. Others thought the Ripper could rip the guts out of twenty Catr-ongans ships if need be, so they got drunk occasionally too. Lazlo drank at every possible opportunity, but as his capacity for holding liquor was considerable he was never too noticeably affected-not at first, that is to say. But one day the skipper sent for Lazlo and talked to him privately. A number of people believed the skipper told him to stay sober.

Whether this was the case or not, Lazlo, who was known to take a very lofty attitude with all officer grades, and to have a very clear conception of his own personal rights and privileges, made a point from then onwards of becoming completely and totally drunk. In

fact, he had to be brought back to the ship by his friends.

The Catr-ongans remained at the other end of the space-port, about six to eight miles away. Their men gave an impression of brisk disciplined efficiency in marked distinction to the careless abandon of the Ripper crew. A certain amount of quiet modification and alteration may have been carried out inside the Ripper itself, but if so, this was one item of information at least that the crew failed to discuss openly and artlessly with the world at large,

Mr. Salas worried a great deal, collected information, visited government officials, passed notes out to the Ripper, and worried some more. After a week of this he called on the Captain of the Ripper again.

"Well?" the latter asked, "how's it brewing?"

"What in particular?" Salas asked in return.

"Tell me what the enemy knows about our ship. What information they have for certain."

"They know everything worth while. For instance, that your maximum acceleration on atomic jets is three-g . . ."

"Ah!" Jack exclaimed.

". . . that you have a blind spot to rearwards due to the fact that your stern gun is obstructed by the tail-fins . . ."

"Ah !" said Jack, a second time.

". . and that your waist guns will bear upwards and downwards relative to the horizontal plane of the ship, but not outwards. The Catr-ongans checked that point with special care."

"Yes, it's a troublesome defect, The Ripper class of ship was designed by some base-wallah who thought we'd invariably operate in squadron formation, each unit protecting the other's flanks and no fear of shooting one another up. I suppose we might conceivably work in squadrons, if the Confederation's volume of space wasn't so confoundedly large and the numbers of the fleet so confoundedly small. Anything else, Mr. Salas?"

"They know about Lazlo, of course. They believe he's your secret weapon. They know he gets drunk most nights some place in town."

"True enough. What about the Catr-ongans' manoeuvres with the

local folks?"

"Their Commander's grown a lot more insistent than he was to begin with. He's demanding that the government order you away . . ."

"Then he'll sit upstairs and wait to plug me as I rise, eh? And what do your friends of the local government say to that?"

"They're on the horns of a dilemma—they're nearly distracted. If they order you away to your destruction they've alienated the Confederation; if they don't they alienate the Catr-ongans."

"How's their dilemma going to end?"

"The end's inevitable," Salas told him with conviction. "They'll stall for some time yet, but finally they'll do what the Catrongans ask, for the Catrongans are knee, on the spot, with sufficient force to sink you first and mess up most of the cities of this planet afterwards. Later they'll try to explain to the Confederation how they were driven to it by sheer necessity."

"Well now," the Captain said, "D'you think you could coax one on your pals in the government into a corner and whisper something

in his ear? Offer him a bargain?"

"I could try," Salas agreed cautiously, "What sort of bargain?"
"Tell him the only situation I fear is that two of their ships shall stay down here beside me and turn their guns on me and order me to blast off, while the three others wait upstairs ready to jump me the minute I reach free space. Tell him we realise he must yield in the end to the Catr-ongan demands—that he must order us off and ask

the enemy to enforce this order. Say the Confederation won't blame him for doing so if he will do it at the moment I shall choose."

Salas looked puzzled, "You mean . . .?"

"I mean simply this—sooner or later the Gath government will yield to the Catr-ongan pressure. They'll order us to leave and simultaneously ask the Catr-ongans to enforce that order. You agree?"

"Oh, absolutely. It's what I've been telling you."

"Very well. I want it to happen in my time, not the enemy's. I want the enemy to be surprised, not me."
"I see . .." Salas got to his feet. "It's a delicate business, but

I think it can be done. Give me a couple of days to fix it,"

Jack the Ripper sent for Lazlo a second time. Lazlo came, uniform crumpled but correctly buttoned, little black eyes blinking suspiciously. "Enjoying yourself, Lazlo?" the skipper asked.

" Fair enough, sir," the latter replied cautiously.

"I've sent for you to give you the word about a really big chance that's coming your way quite soon—a chance to put a new high on your reputation as a gunner."

"You mean them five enemy ships, sir?"

"Exactly. I'm going to set 'em up for you to knock off."

"Okay, sir," Lazlo replied indifferently, "just bring 'em in range, sir, and leave the job to me." He shuffled and looked as if he'd like to go now.
"I certainly will. It's this question of bringing them in range I

want to talk about. Sit down. Unbutton your blasted collar and let's talk."

talk."

They talked for about an hour. Lazlo remained unfriendly, but

they reached an agreement all right.

"That's the way it goes, then," the skipper said finally. "One last word. You've been going in town most days and getting stinko, I hear . . ."

"I've done nothing contrary to regulations, sir," Lazlo protested

sullenly.

"I know; I'm not objecting; I'm not even trying to stop you. I'm want you to keep on going to town, to the same dive every time and I want you to keep on getting stinko. You can scarcely imagine how safe and happy and carefree the Cattrongans feel when they know our crack gunner's lying blotto somewhere in town, and it's most important that we try to keep them happy. So you continue getting stinko and make a point of passing out cold towards the end of every evening. But—" Jack pulled open a drawer and produced a number of formidable and deadly looking bottles, variously and colourfully labelled.

He dumped them in front of Lazlo. "In future you'll drink nothing but these, Lazlo. The exciting colours don't mean a thing—they are all filled with a stuff called water, I've merely put a little sugar in to take away the disagreeable flavour. You will take these bottles along with you in future, Lazlo, and drink nothing else but—understand?' The skipper looked Lazlo straight in the eye. The skipper was as pink-checked and youthful and chubby-looking as ever, but his blue eye glinted like ice. Lazlo blinked and looked away hastily.

"Very good, sir," he agreed sullenly. Jack the Ripper sent for the two men who had been given the task of keeping knives and similar things out of Lazlo's back, and gave them a number of detailed instructions relative to the protecting and cherishing of Lazlo.

Two days later Mr. Salas returned. He brought with him a nervous and embarrassed-looking native government official. He introduced the man, whose name was quite unmanageable.

the man, whose name was quite unmanageaoie.

"He speaks English," Salas added hastily.

"Yais,Yais," the man agreed nodding and grinning a monkey-like grin.

"Ye put your proposition to this gentleman, Captain, and he's
willing to play along with you—but he wants your personal assurance

that his government won't be held responsible for asking the Catrongans to order you away."

"Yais, Yais," the little man nodded, "if you beat these others—which I hope, yais, which I hope . . ." He paused uncertainty.

which I hope, yais, which I hope . . . He paused uncertainly.

". We'll forget you ever moved in the matter," the Captain continued for him. "I'll make no mention of the fact in my report—

but only on the strict understanding that you take action at the moment convenient to me."
"Yais. Yais... I onderstan"... I do what Catrongans ask

but not when they say," the visitor nodded vigorously.

"Good," Jack the Ripper agreed amiably. "Do that and I'll present you with their Commodore's shoulder-boards as a souvenir

later on.

Three days later Jack held a conference of his officers. They already knew he meant to fight the enemy, but now he told them how. The unfolding of the plan did little to increase their hopes of enjoying their retirement.

"Any questions?" he asked.

"Sir," the gunnery control officer objected a trifle querulously,
"your plan entirely depends on switching the gun manned by Lazlo
out of control, giving him a completely free hand—in fact, the fate of
the ship and crew will depend solely on the ability of this man to make

hits by intuitive aiming, with a power-operated weapon of large

Jack nodded amiably. "You realise, don't you, Joe, that by ordinary battle tactics we can't beat these five ships? But with Lazlo . . .

You haven't seen Lazlo in action, have you?"
"I know him well enough—a disorderly and unprepossessing

specimen . . ."
" Let me tell

"Let me tell you something about Lazlo. He got his gunnery training at Moon Base eight years ago. At the end of each course trainees are asked to comment on the instruction they've received. Lazlo's remarks went something like this: 'I think the whole set-up is a lot of malarky . . especially I think this theoretical guff about relative speed and velocity vectors is just invented to keep a crowd of pandrens in soft jobs. There's just one rule about hitting any sort of target with any sort of gun—you point at the thing, hold steady and squeeze the trigger,"

"But . . . But . . ." the gunnery officer stammered, "that's the sure way to keep on missing! It's pure nonsense! Why, at a relative

speed of say . . ."

"Sure! Sure! It's nonsense. I'm just quoting what he said. Apart altogether from anything he said, however, he came away with the best gunnery score on every weapon ever achieved before or since. No other gunner's come anywhere near him. He's got a sort of lightning calculating and range-finding machine inside his head that he himself doesn't know about."

"So our lives depend on Lazlo?"

"Not altogether. Our lives depend on each one of us doing his job. I'm pretty confident Lazlo will do his part satisfactorily." The Captain looked up at the chronometer on the bulkhead.

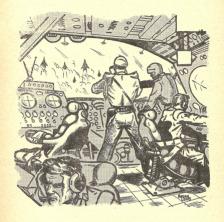
"Better begin to give the motors a first-stage warm-up right now," he told the engineer.

The Catr-ongan ships and crew exhibited their customary efficiency and alertness. Each ship went through its daily routine of swinging its guns and re-cradiling them again; then there followed the brief check and warm-up of jets. Finally when the dust and smoke had subsided, the crews paraded, liberty men were fallen out and marched off towards to the crews paraded, and the control of the cont

The hired ground-car had already taken the Ripper's men into Nordthal; it was difficult to say exactly how many men were in the vehicle this time, but judging by the noise there was a considerable number. Other members of the crew lounged untidily about in the

vicinity of their ship.

THE FIREBIRD 111



The Catr-ongan Commander was visiting the Gath Government at Capital City some hundred miles away. Through his interpreter he was making the local government aware of his own increasing displeasure. He demanded authorization to act on behalf of the Government of Gath to order the Confederate ship away into space—or to destroy it on the ground.

Jack the Ripper sat in his control room up in the nose of the ship. He was looking down and out across the burnt-up earth of the space field and giving an imitation of a man who hadn't a thing to worry about.

The engineer—who was a Martian Scotsman—was running the preheater on the main jets. Other members of the crew were standing by in various obscure ways.

Lazlo, with a few of his friends, was in town. He was drinking from an extremely ornamental and dangerous looking bottle. He appeared to be getting drunk very rapidly.

A group of Catr-ongans were watching him impassively.

Mr. Salas in his office in Nordthal was pacing up and down, glancing every second or so at a large tele-communicator.

The Catr-ongan Commander in Capitol City did a spell of shouting and table-pounding which made the native wilt, then prepared to take

his departure.

As the pilot of his personal flier came to attention, he reflected that

the local people were showing definite signs of weakening; another visit in about three days' time—after this official had had time to talk it over with his colleagues, and he estimated they would crack up.

The native watched the flier rise and head back towards the spaceport.

port.

He dialled a set of letters and brought the anxious furrowed face of

Salas up on his screen.
"Right," he told Salas, "in half an hour, I speak."

Salas nodded and switched off. He went across the room and sent

out a brief signal on a temporary radio rigged in the corner.

The buzzing reached Jack the Ripper's ears. He stretched out his

One of the men who was with Lazlo—one of the two who had been detailed to guard him—heard a faint buzz-buzzing come from his pocket. He nodded to his friend. The two grabbed Lazlo who had passed out some time before, and began to drag him outside by the arms.

Three of the Ripper crew stayed behind. They did not look particularly happy, but the Catr-ongans watching them remained quite. calm.

Lazlo was dumped into a hired ground-car which immediately set off back to the space-port. When it had cleared the outskirts of the town Lazlo sat up.

Just about the time the land-car containing Lazlo and his guardians came bumping across the space-port, the Catr-ongan Commander's flier bringing him back from Capitol City touched down on the little landing-platform half-way up the side of his ship. The Commander was creeted by his ship's Captain.

Very little is known even now about the Catr-ongans; few humans, for example, are able to speak their language; their ways of thinking are still quite incomprehensible to us, so the terms in which the Commander was given the news can be anyone's guess. There was no doubt, however, about the substance of the news. The Gath Government had just spoken on the tele-communicator. The advice given by the Catr-ongans an hour ago had been considered and accepted. The Gath Government now formally requested the Catr-ongans to order the undesirable Terran ship out into space, or to destroy it on the ground if it refused to leave.

Presumably the Commander was pleased to hear this. However, the Captain of the *Ripper* had been simultaneously informed of the government's sudden decision—an incredible blunder from the Catrongan point of view. But they were experienced fighting—men. They

were well accustomed to making swift decisions.

Three of the ships were immediately ordered to go aloft and to assume a close orbit round the planet in readiness to blast the Ripper before it could wink itself out into hyper-space. At the same time a curt message was sent in local code to the Ripper—unless you have cleared the planet within five hours your ship will be destroyed on the ground. Thereafter within the Catr-ongan ships there was an orderly and purposeful bustle.

No longer were there any men to be seen lounging outside around he Ripper. The ground-car that had brought Lazlo back to the ship was now speeding townwards. The ship's ports were closed. The service lift had been drawn up. Before the Catr-ongan ship's engineers had even commenced their first-phase warm-up of jets, a glow of red fire could be seen beneath the Ripper's sail and a low but growing

rumble of atomics was heard.

From their observation ports the Catr-ongan Captains watched. They were sure the jets of any battle-ship must require at least an hour to warm up, irrespective of what kind of people manned it or what planet had constructed it. Yet the Ripper seemed almost ready for take-off within a few minutes of receiving their ultimatum.

The rising dust-cloud boiled and switled around the Ripper. The noise of the jets rose to a booming that shook the ground. Ponderously

the ship heaved herself off the ground.

"All set, Lazlo?" The Captain spoke into the intercom.

Lazlo sat in the starboard waist gun-turret, in a chair that was part of the gun-mounting; he was strapped into it by legs, arms, waist, shoulders and thighs; even his forehead was clasped in padded clamp. At his finger-tips were buttons which at a touch could swing the huge gun smoothly round in any direction, carrying Lazlo and his chair as well. He was the predicting, range-finding, trigger-firing mechanism; he was part of the gun, or perhaps the gun had become an extension of himself.

"I'm okay, skipper," he said. "Just get me above this dust-cloud." The watchers saw the *Ripper* rise hugely above her own dust-cloud,

climbing slowly.

The guns and other external features of a space ship are invariably cradled during ascent through atmosphere for reasons which are obvious enough, but now something quite incredible happened. One of the stubbly barrels of the ship's waist armament flicked out of its cradle, swung and steadied. The rate of climb was still quite slow, and Lazlo was able to plug four shots carefully through the middle of the nearest Catr-ongan ship. The projectiles were solid twenty-inch diameter spherical shot, designed for space combat, but they were fired at close range; each one passed right through the target ship in a downwards slant. A battleship is a pretty large structure, but at the same time it is pretty crowded with men and machinery. The four shots were sufficient to wreck it completely.

Lazlo cradled the gun again and unfastened himself from the seat.

The Ripper vanished out of sight. The Catr-ongan Commander had

In the Reper variastical out of signt. I ne Catr-ongan Commander had odifficulty in deciding that his rival would try to get clear into free space and cut her jets and wink out into hyper-speed, but he thought there was an even chance of catching her before she disappeared—perhaps even at the critical phase before flash-over. He ordered his four remaining ships up. The engineers warmed the jets so fast the line particular than the properties of the state of the properties of

behind it

Once clear of the planet's gravitation field the crews slacked their safety harness and went about their duties, tending motors, manning guns, watching meters, spinning the dials of the radar screens in search of the Ripper.

They found her without any difficulty. She had made no attempt to escape, but on the contrary had maintained position roughly above the space-port to await the ascent of her enemies. She was discovered by the Catr-ongans just as she swung into line astern of their leading shin, which manoeuvre, of course, olaced her ahead of the other three.

The Catr-ongan intercom wave-channels broke instantly into a babble of speech, quickly replaced by the staccato rattle of their

Commodore's orders.

The ship lying ahead of the Ripper was ordered to stay just out of effective range. The Catr-ongans had information that the Ripper was

hopelessly outclassed in the matter of acceleration, so this manoeuvre appeared to present no difficulty. A second ship was ordered to fall in astern of the Ripper, keeping within the cone of her rear-gun's blind spot, while the other two were sent out on to either flank.

lack the Ripper regarded the diagram of the ships' positions with a smile of satisfaction, although with one enemy ship ahead, one coming up on his tail, and one on each flank, there seemed to be little cause

for it.

He flipped a switch and got the forward gun-turret.

"Where's Lazlo?" he asked.

"Coming up forrard, sir," a voice answered.

"What're we making, William?" Jack spoke to the navigator next. "Exactly what you asked for, sir," the latter replied, stiffly. "Three-

g acceleration and the ship ahead's having no trouble staying out of

effective range. The other behind us is drawing up." "No cause for gloom, William. Three-g's is what these birds think

is our maximum, just as they believe Lazlo is lying drunk in some pub back on Gath. They must feel pretty confident they've got us wrapped up."

"Lazlo calling Captain," a thick voice called from the speaker.

" I'm in position now, sir."

"Right, Lazlo," the Captain replied. "I'll lay the next one right in your lap. Inch up towards her gently for just as long as she doesn't notice," he told the navigator.

There was an extra surge of power which dragged them a fraction deeper into their padded seats.

"Give me a little starboard," Lazlo asked. "She's got a vapoury iet I can't see through."

The Ripper crept nearer for a while, then the ship ahead observed this and began to turn her taps up.

"She's running from us now," Jack cried. "Put your foot right down on the loud pedal, William."

William set the "maximum acceleration" alarm pealing, waited a moment, then opened up. The acceleration pinned them to their seats. Even the skipper was unable to open his mouth wide enough to make funny remarks. Not a soul in the whole ship budged an inch except Lazlo strapped in his swinging chair, and even he moved very little, just enough to touch the little buttons under his arm that caused the great gun of which he was a part to swing round.

A mechanical range and velocity computer would have taken the whole enemy ship as target and centred on that, but Lazlo was better than any computer. He aimed at the rear turret itself. With five shots he had completely destroyed it, almost torn it from its mountings.

Five more shots he devoted to the starboard waist guns, then like a skilled surgeon he groped for the ship's vitals—the command com-

skilled surgeon he groped for the ship's vitals—the command compartments, engine rooms and jet tubes.

Iack the Ripper watched the shots tensely. He could well imagine

the massive armoured shot tearing and smashing and rebounding in

the crowded interior of the ship.

It ended with a puff of white vapour; the jet tube and mounting

were seen to blow themselves off the hull and float lazily away.

The Ripper shot past the wrecked ship. Jack signalled to cut

acceleration.

"Give an imitation of over-heated jets," he ordered. "Let the rearward ship overtake slowly. Rear turret gunners to open fire as

soon as it comes within extreme range. Continue firing till Lazlo gets down aft. Any reports?"

"Sir," a voice said, "we were fired on from behind before we drew

out of range. We're holed in number three storage compartment and one projectile-delivery chute is wrecked. One man killed."

"Not bad," Jack commented. "Evidently they've got no Lazlos

among their gunners. Only three ships left, William."

"More than enough," the navigator said gloomily. "Perhaps computer-controlled fire isn't so good as Lazlo, but computer-control from three ships should be enough to make us look like a colander. And they're wise to us now."

William had never expected to survive the engagement. Down on Gath he had left farewell messages in the form of sonnets (for William was a poetical soul), addressed to a girl back home on Terra. They were quite good sonnets. He had in addition written some verses to a Martian girl, but these were not so 'good. Anarabi Martian is a difficult language for anyone except a native.

The Catr-ongan ships were drawing close. Two of them were working round on the flanks, while the other came up behind. Lazlo was toiling and grunting his way down from the forrard turret. Sharp thuds indicated that the rear turret was firing occasional shots at

extreme range.

"Enemy on the flank swinging his turrets preparing to open fire,

"You're in command of all armament for the moment," Jack signalled to the gunnery officer, "Engage the enemy and open fire whenever you think fit but don't scare away the chappie who's coming up on our tail."

"He's moving round into our blind spot," the gunnery man objected.

"Let me worry about that," Jack told him.

THE FIREBIRD

A minute or two later the vibration of gunfire shook the ship. The firing continued steadily for some time. Then there was a terrifying crash from up forward, followed by a series of smaller noises.

"Hit twenty feet aft of the cargo port," a voice on the intercom

reported.

Jack said nothing. There were members of the crew whose job it

was to seal up holes as soon as reported.

"Lazlo here," came the voice Jack was waiting to hear. "I'm in the rear gun-chair, strapped in. Can't do a ruddy thing though, on account of the tail-fin."

There was another, less ferocious crash.

"Could you get him if the tail-fin was out of your way?"

" Like a sitting duck," Lazlo replied.

"Desperate situations need desperate remedies," Jack said, half to himself. He pressed a stud. A row of small cutting charges (planted along the heel of the fin during its stay on Gath), exploded and tore the fin from its strut. The sheet of metal, about the size of a football pitch, floated away. Immediately there was the steady thudding vibration of fring from the reat turret.

The rearward ship was very close. Lazlo's shots tore down through it lengthwise, creating tremendous damage. He scored five hits before its Commander realised what was happening. Then a streak of flame leapt from its nose as it braked hard. At the same time it attempted

to slide sideways. The Ripper took two more hits.

lack nodded to the navigator, who first sounded the alarm for half-

acceleration, then fired the braking-jet.

All sorts of things seemed to be happening at this moment. Reports of damage were being called out unemotionally. The forward turret was still firing at the ships on the flank. Lazlo continued to plug shots into his target. It continued to retreat under the thrust of its forward jet until that flickered out. It was evident then that the ship was out of control.

Lazlo fired a final shot at extreme range—a range at which no-one would have expected to score a hit. The projectile hit the stricken ship just ahead of the main jets and penetrated to the fuel tanks. It blew itself apart, chunks of ship, equipment, bulkheads and crew

whirling slowly outwards in every direction.

"And then there were two," Jack muttered mostly to himself, then into the intercom. "Three of the enemy are now out of action. We have about half an hour for emergency repairs while the two who remain manoeuvre back on to our flank. Get to it."

"... Yes." the navigator echoed, "they manoeuvre back onto

either flank where our guns can't bear, stay out of effective range and

plug away at us till we fall apart."

"Don't be gloomy, William. We've done very well so far. Get ready to do some snaking and speed-fluctuation as soon as they close in again."

The Ripper lay with jets cut repairing her wounds and re-organising while the two Catr-ongan ships swept round to come up again on the flanks. Lazlo, grunting and groaning and sweating, made his way from the rear turret to a little cubicle provided for him amidships.

This cubicle was never standard equipment on any ship. In fact, it had been specially constructed for Last) just a few days before. It formed a sort of link between the starboard and the port waist gunturrets, and indeed the control for these guns had been brought into it. It had the usual acceleration chair, into which Lasbo began to strap himself, and a kind of twin gunsight-cum-mirror arrangement. By means of these devices Lazlo could simultaneously control the starboard gun whose field of fire was upward, and the port gun which fired downward. To all intents and purposes the mirror arrangement

enabled him to see and to aim in both directions at once.
"Okay, skipper," he signalled. More privately, by wiggle of finger,

he motioned to a gun-handler.

"Speaking as a bloke who's just sunk three enemy ships," he said, "and Captain or no Captain, I want a drink . . . Give."

"Not b—— likely," the other answered, "I'd be on a charge for

a thing like that."

"Come on, give. I know you've a flask on you."
"Nothing doing, Lazlo. Just two more ships and you can have enough to swim in. Just two teeny weeny ships."

"The way I feel now I've got so little spirit left I don't care whether

I do in any more ships today or not," Lazlo grumbled.

"All right then-just one short snort," the gun-handler agreed,

whipping out a flat curved flask.

The two Catr-ongan ships came up alongside again and began fring. William the navigator started flicking switches. Main jets, fire . Main jets off . Nose jets fire . Nose jets off . Auxiliaries fire . Trying to avoid any sort of rhythm or pattern in his sequences that could be picked up by the enemy computers. The Ripper's nose turret—the only one that could bear on the enemyfired in reply, although not very effectively, for it had to swing alternately wide to starboard and then to port.

There was the crash of a hit somewhere in the ship, and then an-

other almost immediately.

"They're aiming to wipe out the forward turret," Jack surmised. He called up the gunnery officer. "When you think our forward turret's been hammered enough, cease fire, call the crew out and seal the nose-section bulkhead."

The enemy ships drifted inward toward the Ripper, hammering

away at the gun-turret all the time.

"Remarkable how we manage to stay alive so long, isn't it, William?" lack observed, "It's the long range and rapidly changing relative speeds that make us so hard to hit. No computer can foretell which of your fingers is going to touch which button next."

Wait till someone develops a high-explosive projectile capable of standing up to pressure in these high-velocity gun-barrels. It'll be a case of one hit, one ship then . . " the navigator prophesied gloomily, "That's not a present worry," the Captain consoled him. " Now

I think it's time we resumed our battle."

As a matter of fact, the battle was nearly over. The two Catr-ongan ships were now well within range, moving parallel to the Ripper, trying their hardest to match her speed and evidently quite sure they

were dealing with a crippled and almost defenceless enemy. "All set, Lazlo," the skipper signalled. "We'll give you the targets now, and after you've had your first session with them, we'll match

speed and give you a nil relative velocity once every minute." So

saying he nodded to William. "Roll her," he added. William pressed a couple of buttons beside his panel. Two small auxiliaries in temporary mountings amidships, arranged tangentially in the manner of a catherine wheel, spluttered and sent out relatively thin streaks of flame. Their reaction began to roll the ship slowly

round on its longitudinal axis.

Most of the Ripper's crew were strapped to something, somewhere or other; those who were not slid across tilting decks.

"Coming round, sir," Lazlo said as the upward and downward guns

were brought round to the horizontal.

William checked the roll nicely with a burst from a pair of opposing tangential jets, then he matched speed to the enemy ships. Those members of the crew who had time to think lay sideways in their chairs and tried to decide which direction was up and which was forward.

"You know, William," the skipper said, "you're just about as good at your job as Lazlo is in his."

The guns began to thunder.

Lazlo had two guns bearing to port and two to starboard. He had means for aiming in both directions. His targets were lying close alongside, with very nearly zero relative speed. The fingers of both hands rippled over the little buttons. The big gun muzzles tilted and steadied and coughed. Above his head the shot rumbled down from the lockers. He fired as fast as the automatic loaders could open the breeches and ram in the next round.

In ten minutes he had pounded their midships batteries to scrapiron. Then he turned his attention to their main jets, for it was essential to smash these before it occurred to the Catronogans to run

in opposite directions.

"And all that remains now, William," Jack pointed out later, "is that you should make a successful descent and touch-down minus one rail-fin "

". . . It's never been done before," William replied with his habi-

tual gloom.

"You know," Jack the Ripper reflected. "There are quite a few races around the Universe who are just as clever as us humans, but none of them seem to produce intellectual morons as girled as Lazlo or for that matter rotten poets who are first-rate navigators like you, William. That's why we humans are likely to stay on top."

Alan Barclay.

The Literary Line-Up

Next month's issue sees yet another James White lead story, but in very different vein to his two recent successes. "Suicide Mission" is a Time story of a man who goes into his past not to murder his grandfather but to kill an apparently unknown and harmless individual. The story is, of course, somewhat more complicated than just that.

The second instalment of Wilson Tucker's serial "Wild Talent" practically overshadows everything else in the magazine, building up to a most complicated and exciting climax. Not entirely overshadowed, however, is a short gem from C. M. Kornbluth whose recent serial

"Takeoff" was such a success.

Other authors who will be included are Lan Wright, Francis G. Rayer and John Burke.

Rayer	and John Burke.					
Story ratings for No. 24 were:						
1. 1	The Conspirators	-	-	-	-	James White
1	Takeoff-Part III	-	-	-	-	Cyril Kornbluth
2.	Idealist	-	-	-	-	Lester del Rey
3.	Escape Route -	-	-	-	-	John Christopher
4.	Jerry Built	-	-	-	-	Dan Morgan
5.	All Glory Forgotten	-	-	-	-	Kenneth Bulmer
6.	Fire	-	-	-		Burgess Browne

Unexplained "Saucers"

On page 133 of The Complete Book Of Outer Space (Sidgwick & Jackson, 10/6; Gnome Press, \$2.50; Maco Magazine Corp., 75c), there appears a night photograph of a steel mill operating in Ohio, U.S.A., with apparently three flying saucers in the sky above the glare of the furnaces. The picture states that the saucers have not yet been

explained.

In a B.B.C. television broadcast some time ago, scientist author Arthur C. Clarke stated that these apparent "saucers" were nothing but light refraction in the camera lens. British and Continental television viewers recently had conclusive proof of Clarke's theory when a T.V. camera mounted on a car toured London's City and West End streets recording floodlit buildings for the benefit of an eight-country relay. As the camera repeatedly caught the full glare of floodlights dozens of refracted "flying saucers" exactly similar to those depicted in the above article entitled "The Flying Saucer Myth" by Jeffry Logan hurtled about the streets or zoomed over buildings giving the full effect of an invasion from outer space.

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This month witnessed an event of great astronomical interest when the planet Mars made its closest approach to Earth in thirteen years. Admirably timed with this solar phenomenon is the appearance of a small book called The Green and Red Planet by Dr. Hubertus

Strughold (Sidgwick & Jackson, 7/6d.)

Dr. Strughold—an eminent German physiologist—was a pioneer in the field of aviation medicine and ultimately became the first Director of the Department of Space Medicine when it was formed in 1949 by the U.S. Air Force at Randolph Field, Texas. His approach to the question of whether life exists on Mars is completely governed by supposition based on factual data of life forms on Earth. In other words the ecology of Mars is deduced by comparison with physiological conditions known on our own planet. He presupposes the assumption that laws of biological processes are the same throughout the universe, and that the structure of all living matter is based on the carbon atom. Within this cautious but eminently reasonable framework Dr. Strughold builds up a fascinating hypothesis of the type of life that could exist on Mars, and our own chances of survival there when interplanetary travel is possible.

Many previous books—by de-Vaucouleurs, Spencer Jones and Lowell—have investigated the ecology of Mars, but I feel that this new and refreshing approach will be of more interest and apprehension to the layman. To the fantastist—reared on Burroughs and the equally implausible pictures of Mars in most later science-fiction—Dr. Strug-hold's conclusions may seem disheartening, but until actual space exploration may someday prove his reasoning inaccurate, they cannot

well be questioned.

By comparison, this month's fiction is somewhat of an anticlimax, and the unreality of pseudoscientific romance is thrown into stark contrast. Henry Kuttner's Fury (Dennis Dobson, 8/6d), a tautly written novel of man's re-emergence on the planet Venus, first apeared

seven years ago in Astounding Science Fiction under the pseudonym of Lawrence O'Donnell and was typical of the ambitious thoughtconcepts with which that magazine trail-blazed the '40's. To my mind Kuttner's forte is in the short-story medium, but Fury is a competent work, marred only by the somewhat unreality of characterisation. The story concerns Man's survival against the fury of Venus. Not in the early colonisation which preceded by a hundred years the destruction of Earth by atomics, but six centuries later when the remnants of humanity have found haven beneath the Venusian seas, safe in their impervium domes from the teeming continents which they had fled, From a natural adversary fiercer even than the Jurassic Age on Earth which Man had never had to combat. These enchanted Keeps harboured a static society ruled by the hedonistic Immortals, mutant families whose very power derives from their longevity of life. Responsibility has devolved from the masses on to the experienced Immortals; technologically the undersea Keeps are perfect, and warfare had been outlawed. A stable enough culture-for a stagnating race. It needed a man of exceptional strength and ambition to blast man-

kind into motion again—to go landside and finish the colonisation of Venus, and then go out to conquer the universe. The irony of it was that it should be Sam Harker, born an Immortal, who became the instrument of this awakening. Robbed of his heritage by an insane father, mutilated in appearance and ignorant of his immortality until he had reached the age of eighty, his career of violence and intrigue against the seeming invincibility of the Immortals is inextricably involved with the conflict between the belief of his own short-livedness and the innate sense of long-term strategem employed by his enemies.

To Build a Robot Brain by Murray Leinster
one of the articles in next month's (Sept.)

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Many strange characters influence his action-filled life—the Slider, a super-Fagin who is Sam's early mentor and ally; Ben Crowell, the thousand-year old Logician who remembered Earth; Robin Hale, an Immortal, the last of the Free Companions, mercenaries who had once

waged token wars between the Keeps.

Good plotting and brisk action override the jerkiness of narrative, reminiscent of the "tough" school of crime writers, but from a detached viewpoint I feel somewhat apprehensive of the reaction of the science fiction initiate to this novel which takes for granted the many fantastic concepts which are accepted without demur only after long apprenticeship by the veteran science-fiction addict. For fans it is highly recommended; but the average reader, if he ever gets past the furtil dust isacket will. I think find it a trifle indicestible

Much better is The Robot and the Man edited by Martin Greenberg (Grayson, & Grayson, 9/6d.) This publisher has developed a science-fiction library of selective good taste with the emphasis on anthologies. Their list includes reprints of many of the better American collections and this present volume, one of the "Adventures in Science Fiction" series—compiled around individual themes—is no exception.

As the title indicates, the ten stories therein present, in logical sequence, various aspects of robotics and cybernetics, from the electronic brain which brings peace to the world in John D. Macdonald's "Mechanical Answer" to the strangely beautiful "Into Thy Hands" in which Lester del Rev tells of the time when mankind has vanished from the Earth and is recreated by the robots that have survived him. "Deadlock" by Lewis Padgett (Kuttner again), poses a pretty problem -the only usable robots in fiercely competitive industry are indestructible thinking machines, who face the problem of their own indestructability and either go mad or destroy themselves! There is more humour from H. H. Holmes (Anthony Boucher), in "Robinc" relating the competition between android robots and the cheaper and more practical usuform robots. A. E. van Vogt earns a place with "Final Command" in which the conflict between humans and robots is settled by a common denominator-fatherhood! But my choice for first place goes to Bernard Wolfe, author of "Limbo '90," for his brilliant satire "Self Portrait," Add this book to your collection.

The other science-fiction novel to appear this month reads like the script of one of those unfortunate "B" films in which a flying saucer lands (always in the wilds of Scotland), spews forth a monster which threatens destruction to the Earth, but is foiled by a handsome hero whose girl friend undergoes frightful ordeals. Nigel Mackenzie's Invasion from Space (Wright & Brown, 6/6d), varies the plot slightly by depicting the alien invaders as Martians of god-like appearance and long life spans, served with super-scientific weapons and synthetic green dwarf slaves. This time the Martians are worried about our propensity for atomic weapons and calculate that when we inevitably blow our planet to pieces the solar repercussions will not do Mars much good. So the plan of the invasion fleet is to destroy Earth now when the advantageous solar lay-out will leave Mars safe. However, this fiendishness is prevented by a Scotland Yard man and the professor's pretty assistant, who fall in love, and p.d.q. the nasty old Martian warlord has withered away and good old England (and the rest of the world of course), although knocked about a bit, survive in the end. Characterisation and dialogue are on the same level of banality. This is Mr. Mackensie's second attempt at fantasy (following "Fear Rides the Air" last year) and he is either still feeling his way, or more probably is merely adding a little variety to the normal diet



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of shockers, for which market this book is intended. My only regret is that the newcomer to science-fiction whose opinion can be irremediably influenced by this kind of book will then shy away from goodquality science-fiction.

Finally, and strictly for the phrenetics, is Venus Speaks (Regency Press-London & New York-Ltd., 5/-), which is a "revelation of direct messages from the chief scientist of Venus, by means of mental telepathy through the agency of Cyril Richardson, concerning the working of flying saucers, life on Venus and prophecies about the future life on Earth in preparation for the coming Golden Age of Man." This is probably the most fantastic tract I have ever read. purporting as it does to explain the mysteries of interplanetary travel (by a method of attraction and repulsion revealed to the inhabitants of Venus by Spirit communication but withheld from Earth people). the perfection of life on Venus, the natural benefits of solar radiation, the evils of the monetary system on Earth, the effects of the Moon on us and the dire results of meat-eating. Even, it seems, Jesus was an emissary of the Creator from Venus to teach the truth of re-incarnation and the Karmic Law, but despite this our earth is slowly travelling to peridition and only the wisdom of Venus can be our salvation. One name is mentioned twice in the book, to the exclusion of all other living personalities-Adamski. Can I be forgiven for my suspicions?

Leslie Flood

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