

A SCIENTIFCTION NOVEL COMPLETE IN THIS ISSUE!

# STARTLING STORIES

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A THRILLING  
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THE LIFE  
DETOUR

*A Hall of Fame  
Classic*

By DAVID  
H. KELLER

*The*  
KINGDOM  
OF THE  
*BLIND*

*An Amazing  
Complete Novel*

By GEORGE  
O. SMITH



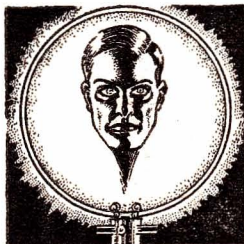
# STARTLING STORIES

Vol. 15, No. 3

A THRILLING PUBLICATION

July, 1947

## An Amazing Complete Novel



## The Kingdom of the Blind

By **GEORGE O. SMITH**

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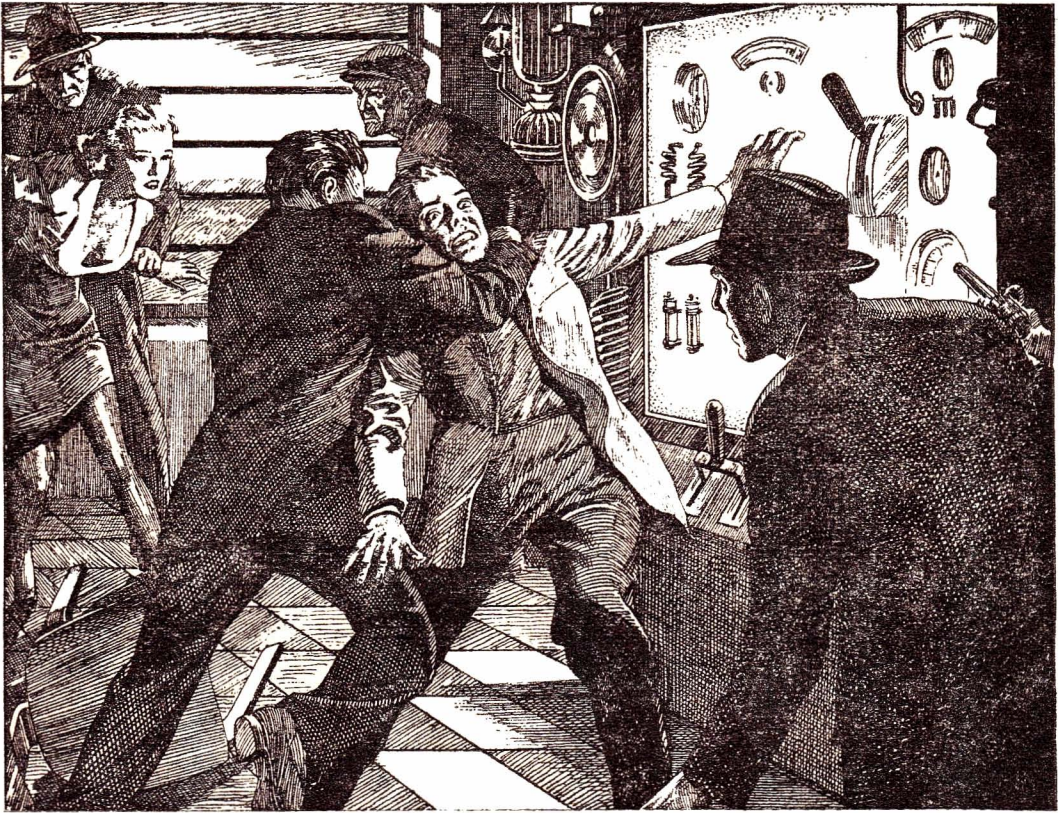
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Cover Painting by Earle Bergey—Illustrating "The Kingdom of the Blind"

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Kingallis caught Carroll and hurled him away from the panel (CHAPTER XIII)

# The Kingdom of the Blind

By GEORGE O. SMITH

*Psychologists said that James Forrest Carroll had lost his mind—but they were forced to admit that he alone could save the Solar System from fearsome outer menace!*

## CHAPTER I

### *Amnesiac!*

**D**OCTOR POLLARD, psychologist, seemed puzzled.

"This has happened before," he remarked.

"Too often," said the director of the laboratory.

Doctor Pollard nodded in silent agreement. He faced the well-dressed man seated a-sprawl in the chair before him and asked, "You have never heard of James Forrest Carroll?"

"No," said the other man.

"But you are James Forrest Carroll."

"No."

The laboratory director shrugged. "This

**AN AMAZING COMPLETE NOVEL**



is no place for me," he said. "If I can do anything—?"

"You can do nothing, Majors. As with the others this case is almost complete amnesia. Memory completely shot. Even the trained-in mode of speech is limited to guttural monosyllables and grunts."

John Majors shook his head, partly in pity and partly in sheer withdrawal at such a calamity.

"He was a brilliant man."

"If he follows the usual pattern, he'll never be brilliant again," Doctor Pollard continued. "From I.Q. one hundred and eighty down to about seventy. That's tough to take—for his friends and associates, that is. He'll be alone in the world until we can bring his knowledge up to the low I.Q. he owns now. He'll have to make new friends for his old ones will find him dull and he'll not understand them. His family—"

"No family."

"None? A healthy specimen like Carroll at thirty-three years? No wife, chick nor child? No relations at all."

"Uncles and cousins only," sighed John Majors.

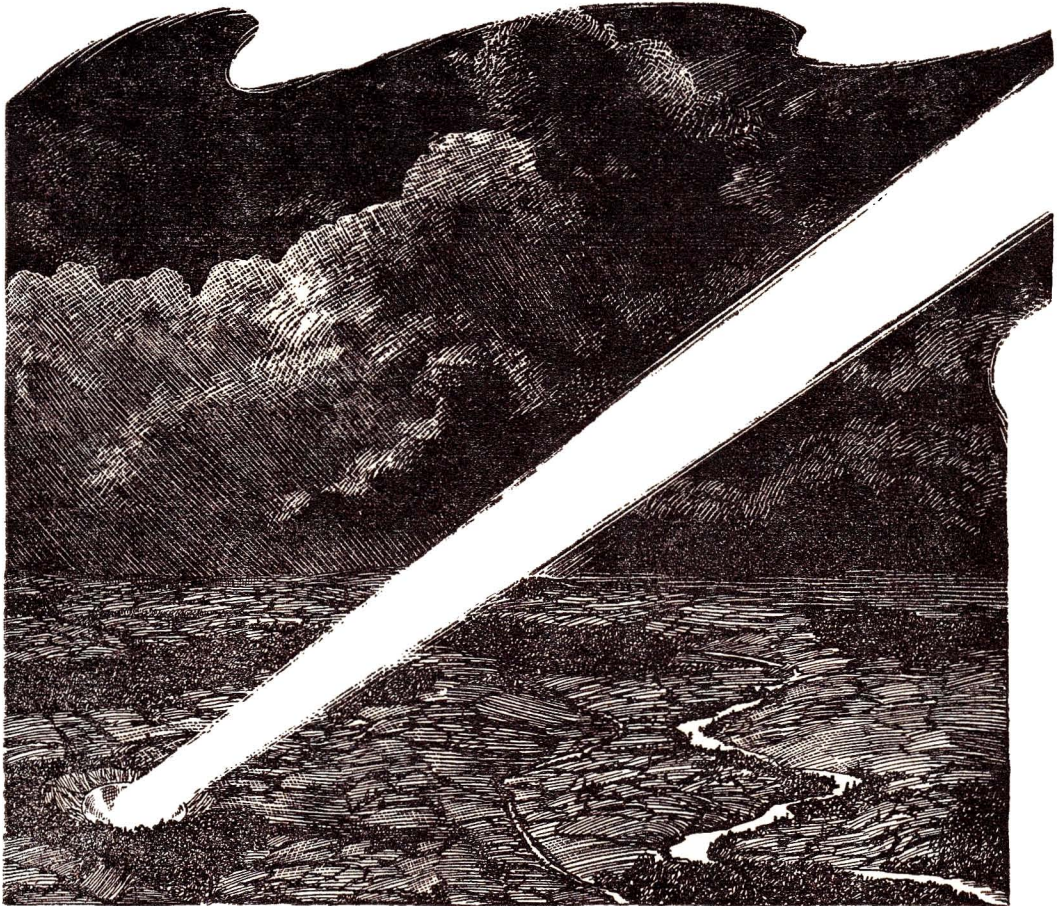
The psychologist shook his head. "Women friends?"

"Several but few close enough."

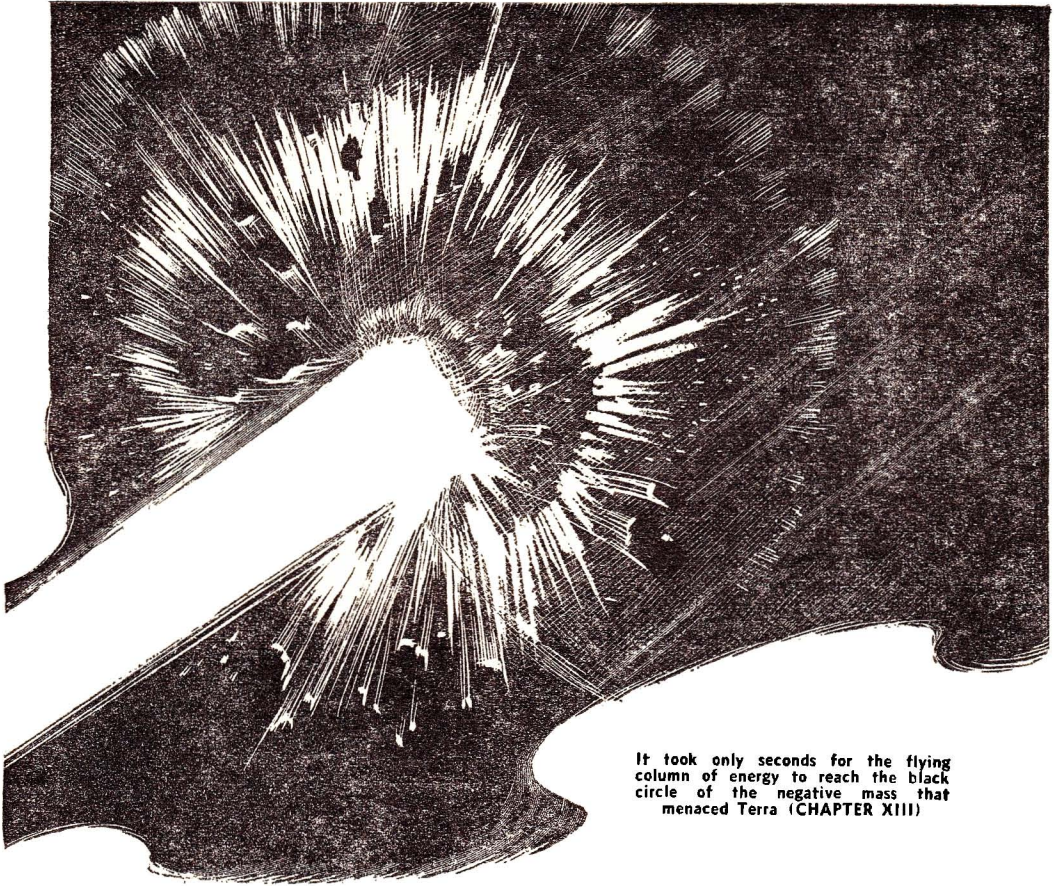
"Could that be it?" mused the psychologist. Then he answered his own question by stating that the other cases were not devoid of spouse or close relation.

"I am about to abandon the study of the Lawson Radiation," said Majors seriously. "It's taken four of my top technicians in the last five years. This—affliction seems to follow a set course. It doesn't happen to people who have other jobs that I know of. Only those who are near the top in the Lawson Laboratory."

"It might be sheer frustration," offered Dr. Pollard. "I understand that the Lawson







It took only seconds for the flying column of energy to reach the black circle of the negative mass that menaced Terra (CHAPTER XIII)

Radiation is about as well understood now as it was when discovered some thirty years ago."

"Just about," smiled Majors wearily. "However, you know as well as I that people going to work at the Lawson Laboratory are thoroughly checked to ascertain and certify that frustration will not drive them insane.

"Research is a study in frustration anyway, and most scientists are frustrated by the ever-present inability of getting something without having to give something else up for it."

"Perhaps I should check them every six months instead of every year," suggested the psychologist.

"Good idea if it can be done without arousing their fears."

"I see what you mean."

Majors took his hat from the rack and left the doctor's office. Pollard addressed the man in the chair again.

"You are James Forrest Carroll."

"No."

"I have proof."

"No."

"Remove your shirt."

"No."

This was getting nowhere. There had to be a question that could not be answered with a grunted monosyllable.

"Will you remove your shirt or shall I have it done by force?"

"Neither!"

That was better—technically.

"Why do you deny my right to prove your identity?"

This drew no answer at all.

"You deny my right because you know that you have your name, blood type, birth-date and scientific roster number tattooed on your chest below your armpit."

"No."

"But you have—and I know it because I've seen it."

"No."

"You cannot deny your other identification. The eye-retina pattern, the Bertillion, the fingerprints, the scalp-pattern?"

"No."

"I thought not," said the doctor triumphantly. "Now understand, Carroll. I am trying to help you. You are a brilliant man—"

"No." This was not modesty cropping up, but the same repeating of the basic negative reply.

"You are and have been. You will be once again after you stop fighting me and try to help. Why do you wish to fight me?"

**C**ARROLL stirred uneasily in his chair. "Pain," he said with a tremble of fear in his voice.

"Where is this pain?" asked the doctor gently.

"All over."

The doctor considered that. The same pattern again—a psychotic denial of identity and a fear of pain at the dimly-grasped concept of return. Pollard turned to the sheets of notes on his desk. James Forrest Carroll had been a brilliant theorist and excellent from the practical standpoint too.

Thirty-three years old and in perfect health, his enjoyment of life was basically sound and he was about as stable as any physicist in the long list of scientific and technical men known to the Solar System's scientists.

Yesterday he had been brilliant—working on a problem that had stumped the technicians for thirty years. Today he was not quite bright, denying his brilliance with a vicious refusal to help. He remembered nothing of his work, obviously.

"You know what the Lawson Radiation is?"

"No." came the instant reply but a slight twinge of pain-syndrome crossed his face.

"You do not want to remember because you think you will have to go back to the Lawson Lab?"

"I—don't know it—" faltered James Forrest Carroll. It was obviously a lie.

"If I promise that you will never be asked about it?"

"No," said Carroll uneasily. Then with the first burst of real intelligence he had shown since his stumbling body had been picked up by the Terran Police, Carroll added, "You cannot stop me from thinking about it."

"Then you do know it?"

Carroll relapsed instantly. "No," he said sullenly.

Dr. Pollard nodded. "Tomorrow?" he pleaded.

"Why?"

Pollard knew that the wish to aid Carroll would fall on deaf ears. Carroll did not care to be helped. There were other ways.

"Because I must do my job or I shall be released," said Pollard. "You must permit me to try, at least. Will you?"

"I—yes."

"Good. No one will know that I am not trying hard. But we'll make it look good?"

"Yes."

"Do you know where your home is?" asked Pollard with his mental fingers crossed.

"No."

Pollard sighed.

"Then you stay here. Miss Farragut will show you a quiet room where you can sleep. Tomorrow we'll find your home from the files. Then you can go home."

Pollard got out of there. He knew that Carroll would not leave—could not leave. He prescribed a husky sedative to be put in Carroll's last drink of water for the night and went home himself, his mind humming with speculation.

**T**HE conference was composed of Pollard, Majors, and most of the other key men in the Lawson Laboratory. Pollard spoke first.

"James Carroll is a victim of a rather deep-seated amnesia," he said. "Amnesia is, of course, a mechanism of the mind set up to avoid some bitter reality. In Carroll's case, not only is the amnesia passive—some warning agency in Carroll's amnesiac mind warns him that regaining his true identity will result in great pain.

"It is something concerned with his work. We'd like to know what about the study of the Lawson Radiation could produce such a painful reality."

"We all get a bit fed up at times," remarked Tom Jackwell. "It's heartbreaking to sit daily and try things that never do anything."

"We are like an aborigine, born on an isolated island three hundred yards in diameter who has just discovered that certain blackish rocks tend to attract one another and point north. Amusing for a time, but what is it good for and what ungodly

mechanism causes it?" said Majors with a shrug.

"Just what is the latest theory on the Lawson Radiation?" asked Pollard.

"You guess," said John Majors ruefully. "We've had too many theories already. The Lawson Radiation is a strange creation out of Boötes by Arcturus, and borne like Zephyr on the wind.

"Certain elemental minerals, when in contact with other minerals, produce a pulsing radiofrequency current which can be detected after more amplification than the human mind can contemplate sensibly.

"The frequency output depends upon the type of minerals used, and it is completely random so far as any consistent pattern goes. Some elemental minerals are no good, some are excellent."

"You've made determinant charts?"

"Naturally. But there's no determinant. After I said elemental minerals, I should have said that this was the original premise. Now we have a detector working with helium gas surrounding a block of lead bromide.

"Lead and helium are no good, helium and bromine equally poor. Lead and bromine are no good—as long as it lasts. Now don't ask me if the combination of the elements interferes. One good detector operates so wonderfully all the time, that a bit of yellow phosphorus is forming phosphorus pentoxid because it is suspended in an atmosphere of pure oxygen."

"No apparent determining factors, hey?"

"None. You might as well pick out the elements with six-letter names. The periodic chart looks like the scatter-pattern of an open-choke shotgun. Water works fine when it is contained in a glass vessel, but in anything else we know of—no dice."

"You seem to have covered a multitude of things," said Dr. Pollard approvingly.

"We've had a corps of brilliant, imaginative technicians working on the theory and practise for thirty years. Every one of them has come up with a number of elemental detecting combinations. We're now working on four and five element permutations.

"With and without plain and complex electrostatic and magnetic fields—and mixtures of both. We've gone logically as far as we can under a system that demands that we try everything. In each set of permutations, we cover all. You know our motto."

Majors finished with a slight laugh. He pointed to the end of the conference room,

where, lettered on the wall above the black-board was—

LEAVE NO TURN UNSTONED!

"Where does it come from?" asked Pollard innocently.

"Take a fifteen-degree angle from the middle of Boötes. Maybe Arcturus for all we know. Somewhere within fifteen degrees of an arbitrary point up there. A total conic solid angle of thirty degrees will encompass all but wisps of the stuff that filter through once in a year or so."

"And the velocity of propagation?"

"That's the simplest thing to check. The pulses from the Lawson Radiation follow random patterns. A segment printed along a time-scale can be matched to another segment of the same radiation taken from the other side of the solar system.

"It's never perfect enough to do more than approximate the answer, but we've got to get a lot more dispersion than the breadth of the orbit of the planet Pluto before we can detect any time-delay—and if we go too far the synchronization of our test equipment gets more and more difficult. You guess."

Pollard thought for a moment. "I can't hope to know all the angles," he said. "This is sufficient until I have to know more about it. Now tell me what might drive a man into instability?"

"You tell us," laughed Majors shortly. His laugh was not genuine for he felt the loss of Carroll deeply.

"Is there any insoluble dilemma in this at all?"

"Not that we know of."

Pollard nodded. "People are always confronted with insoluble dilemmas of one sort or another, but most of them could be avoided entirely by a slight change in personal attitude. The man who cannot get a job because of inexperience, and can get no experience for lack of job is in an insoluble dilemma.

"But it is usually resolved before the subject gets too deeply involved with his whirly. Someone always turns up needing some sort of help at any cost, and that gives the required experience which can be magnified by the applicant.

"Is it safe to assume that all of these four people who have turned up with the same affliction might have turned up with some

terrific answer that drove them into a tizzy?" asked Pollard.

"Who knows?" grumbled Majors irritably. "Might be."

"What sort of answer would drive a man insane?" asked Jackwell. "If a man is seeking an answer to a specific question, and he has no penalty for not answering, what then?"

**M**AJORS wrinkled his forehead. "If the answer meant danger—of any sort?"

"No," said Pollard positively. "If it were social danger he would call for aid and tell the authorities. If it were personal danger, he'd run, and use his mind to avoid it."

"And if it could not be averted?"

Pollard still shook his head. "Men of Carroll's stability do not go insane when faced with personal danger or even certain death. How about his notes?"

"Nothing in them that seems out of line," said Majors. "Just the same 'no effect' or 'no improvement' conclusions."

"See here," said Pollard. "Do you have to use these improved detectors on the natural radiation?"

"Of course," said Majors. "We don't know what the Lawson Radiation is, and therefore we have no way of simulating it in our lab. What has us stumped is that the detectors go on detecting Lawson Effects while they're sitting on a fission-pile with no increase in noise-level or signal." Majors smiled unhappily.

"That is, they do until the nuclear bombardment transmutes one of the detector-elements into another one that is ineffective. So far nothing we can pour into any of them will result in an indication."

Dr. Pollard shook his head. "This has been of some help," he said. "But the big job of gaining his confidence and bringing him back is still ahead of me. I think this will be all for now. May I count on your cooperation again?"

"Any time," said Majors. "We need Carroll—which is quite aside from the fact that we all like him and it hurts to see him as he is now."

The conference broke up, and Dr. Pollard left the Lawson Laboratory and headed slowly toward the hospital where James Carroll was still sleeping.

He was praying for a miracle. A mere human, he felt ignorant, helpless, blind against the sheer disinterest that emanated

from Carroll's blacked-out intelligence. Not so much for the problem of the Lawson Radiation would Pollard like to bring James Carroll back to himself as for the benefit of the man—and mankind—for Carroll had been a definite asset.

And then Pollard stopped thinking on the subject, for he found himself rolling around in a tight circle in the problem. Did he want Carroll or did he want to find out what Carroll had learned that drove him crazy?

To bring him back to full usefulness—that was admitting that his interest was as much for the benefit of science as for the man. Science in Carroll's case meant years and years of intense study of that one particular field.

He was rationalizing, he knew, and he went further by admitting that bringing Carroll back to full intelligence again meant that, unless the man regained his ability to remember and work on the Lawson Radiation, his return was incomplete. Would he bring Carroll back—only to have the man return to this rare state of amnesia at the first touch of something—and who knew what?

Pollard closed his mind and returned to the hospital.

But the days passed with no hope. Carroll was forced to admit his identity and that was all. His mind meticulously avoided any contact with the Lawson Radiation. In fact, any minor gains Pollard made were lost instantly when any phase of Carroll's former studies was mentioned.

Eventually James Carroll went home. Pollard could keep him there no longer. The former physicist returned daily, and Pollard helped the man to make plans for the future. That hurt deeply, for Pollard had to sit there, helpless to do anything about the man's lack of intellect.

Things that a normal man would take for granted in his daily life Pollard had to outline in detail as planning. Luckily Carroll had financial independence—or unluckily, perhaps, for maybe a job of some sort might have been good therapy.

The trouble was that Pollard could not make his own mental adjustment to see the former, very brilliant James Forrest Carroll working for a pittance by digging ditches or slogging away his life in a menial job.

As the days grew into weeks the pattern of Carroll's new life became fixed in the man's mind and he found it unnecessary to return



daily to the hospital for advice.

And Dr. Pollard gave up, himself a fine case of frustration.

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## CHAPTER II

### *Double Trouble*

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**J**AMES FORREST CARROLL was lazily happy with himself. His needs were quite simple and the apartment he lived in was far beyond them. He had a gnawing doubt that he could keep it forever, because there was something about money that did not jibe.

He could not make enough money to maintain it—and he did not need it anyway. But it was very nice and he viewed it as any normal man might view living in his own ideal home, complete with everything that he ever hoped to have.

He awoke in the morning by physical habit, dressed by instinct and his breakfast was served by the housekeeper. Then he left the place and roamed. He saw the parks and enjoyed with primitive pleasure the greenery and the natural settings of tree, grass and sky. The park squirrels knew no fear of him and he found them interesting. Perhaps he subconsciously envied their obvious adjustment to their environment.

He visited an art institute once but never returned because it made him uneasy. The same was true of the museum of natural history, though it was more to his liking than the artificial art.

On the same street was a museum of science which, because of a strange arrangement of windows, portico, and row of columns, took on a distorted picture of a grinning giant that threatened to swallow whoever entered. Carroll, without knowing the subconscious connection, feared and avoided it even though he had to cross the street to pass it.

They took him from a planetarium once—screaming in fear and crying to be set free. Claustrophobia, one "expert" said, but he didn't know that Carroll had been mentally sitting in deep space with no solidity beneath him when he started to scream.

He—got along.

There was no apparent advance. His actions in life were normal to his pre-

amnesiac self on minor items. He preferred the better restaurants, took an instinctive liking to the same good clothing that he had lived with before. In all outward respects James Forrest Carroll was a well-to-do man without the mental right to carry that position.

Occasionally it bothered him that something was wrong but he avoided the reason for it.

*Why am I?* he asked himself again and again. *What has happened?* His evenings were spent in roaming, just walking the quiet streets and trying to think of why he was puzzled. On these walks he noticed little of his fellow men and their actions. If they wanted to be as they were, James Carroll was not to bother them.

He often pondered the question of how he would react if one of them called upon him or spoke to him. Then, he thought, he would act. But he was not to criticize nor object to the way in which his fellow man conducted himself so long as it did not bother James Forrest Carroll.

This wonder of what he would do took ups and downs. There were times when he wished someone would act toward him so that he could find out about himself. At other times he did not care. At still other times he knew that how he would act depended entirely upon the circumstances. In the final analysis, however, Carroll's first act toward anyone came from sheer instinct rather than from any plan.

A girl emerged from a building carrying a file-box of papers. It was dusk and she was hurrying along the street before him by fifty feet. It was obvious that her last job for the day was the delivery of this box of papers to some other building and, once it was delivered, she was finished. That Carroll understood.

She stopped for traffic at the end of the block and as she stood there, a large car drove up to the curb and stopped beside her. Idly she turned and walked to the car slowly, opened the door and started to enter.

That struck a hidden chord in Carroll's mind.

"Hey!" he exploded, running forward to the car. His voice startled her and she partly turned. A hand emerged from within the car and grabbed the box of papers. Carroll arrived at that instant and grabbed for the other end. There was a quick struggle and the box opened and a hundred sheets of

notes were strewn on the sidewalk.

**T**HE girl stooped and scooped the papers up roughly, shoving them back in the box helter-skelter and clapping the top back on. Carroll did not see this, for the occupant of the back seat was coming out angrily at this instant.

Carroll reached forward and clipped the stranger on the nose, driving him back into the car. The driver's companion snapped his door open, grabbed the box, hurled the girl asprawl on the floor of the back seat. The car leaped away, leaving Carroll standing there in wonder.

That girl—he should know her. Those papers were important to someone. He stooped and picked one last one up and stared at it. It made no sense.

He took it home. It pained him to read it but someone was in bad trouble because of it, and Carroll did not like the idea of a woman being in trouble over a sheet of paper—or a hundred sheets of paper. It made no sense, and he gave up, tired.

But he returned to the same corner at dusk the following evening. And the same girl emerged from the same building with the same box and hurried along the same walk. The same car came up and she entered it this time, and it drove slowly off in the direction she wanted to go.

Carroll's instinctive shout died in his throat. The car turned off about one square further and disappeared. Carroll stood idly on the corner, wondering what to do next. For fifteen minutes he stood there, thinking. Then the car returned, turned the corner, and stopped. The girl emerged and walked up the street for a thousand yards and turned into a building with her box of papers.

Carroll waited in front of the building for her. As she came out she saw him and her face lighted up with mingled pleasure and puzzlement.

"Hello, Mr. Carroll," she said brightly.

"Are you all right?" he asked her.

"Fine," she said. "And you?"

"I was concerned about you last night," he told her. "What happened?"

"Why—nothing happened to me." Her eyes widened in wonder and in them he saw some unknown uneasiness. He smiled at her paternally.

"Do this every night?" he asked.

"Uh-huh. You know that I have for years."

Her name was Sally. And Carroll wondered how he should come to know her name. But—she knew his. Or at least she knew what everybody claimed was his name, and what was tattooed on his body.

He wondered again, and in wondering, let the opportunity for further conversation pass. The girl was impatient and said, "You must come back to us someday."

"That I will," he said—but it was to her retreating back. Sally was hurrying up the street again.

Strange, he thought. Does she ride in that car every night? And if he—or they—were friends, why was there a bit of fight last evening? Why was Sally surprised at his question about last evening? She seemed to ignore the fact that she had been roughly hurled into the black car and that he had tried to help her. She shouldn't be riding in strange cars all over the city when important papers were in her possession.

He watched her every evening for a week after that, just to see. And every night the same performance was played. It bothered Carroll, and he determined to see what was going on.

The next evening he was in front of her building as she came out. Her face again lighted up.

"Hello, Mr. Carroll," she said brightly. "Can't stay away?"

"No," he smiled, wondering *away from what?* "Mind if I walk along?"

"Not at all," she said. There was no uneasiness in her now. Carroll was safe enough, an amnesia victim according to Dr. Pollard, who had told her to cultivate his friendship if she could. Sally and Dr. Pollard had been in a three hour conference on the day after Carroll had met her outside of the typing bureau. So Sally was prepared.

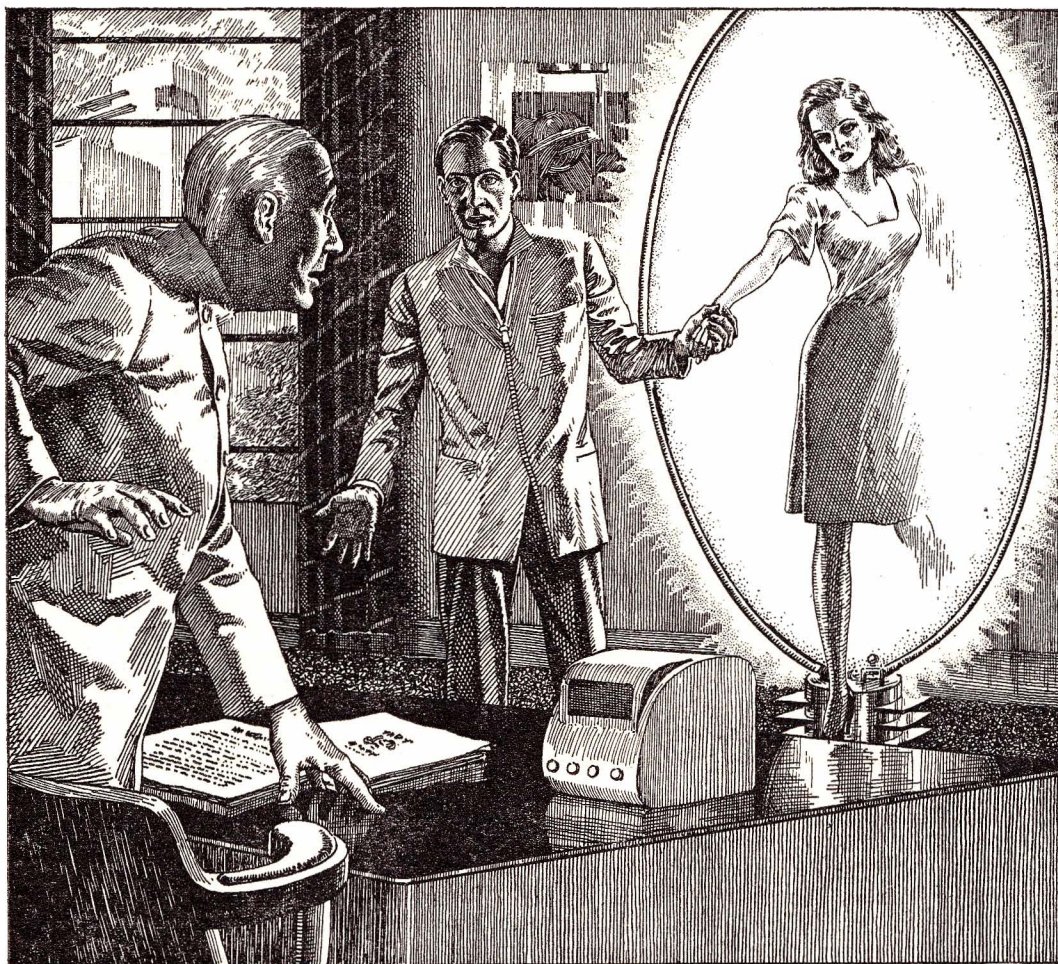
"Mind?" he said, reaching for the box.

"I shouldn't let you," she said seriously. "I'm charged with their delivery, you know. But—I guess you may, Mr. Carroll. I know it makes a man feel foolish to walk along with a woman carrying a big bundle. Go ahead."

**H**E TOOK it. Now they'd have to deal with him!

They came to the corner, stopped for traffic and Carroll looked about him nervously. He was expecting trouble of some sort, but no trouble came. The lights changed with absolutely no sign of that black sedan





Carroll grabbed Rhinegallis by the wrist and dragged her through the mirror into Pollard's office (CHAPTER VIII)

and, as they were in mid-street, Sally said, "Mind if we stop off at the drug store for a sandwich?"

"Is that all right?" he countered.

"Yes," she said. "I live a long ride from here and the typing bureau is on the way to the station. I asked Mr. Majors if this was okay, and he said it was. I've been doing this every night, now, for months."

"But the—" he stubbed his toe on the far curb and stumbled.

She laughed. "I'm sorry," she said, "but the picture of the great James Carroll stumbling over a curb—"

"What's so peculiar about me falling over a curb?" he demanded.

Sally blushed. Her remark had been instinctive. To her youth, barely out of adolescence, a brilliant physicist of thirty-five

years should not be heir to the mundane misfortunes of the ordinary mortal. But she knew that she should not call attention to his past at all.

"Nothing," she chuckled. "Excepting the sight of a man trying to keep his balance and hang on to a box at the same time. Just struck my funnybone. I was not laughing at you; I was laughing more at the situation. Please—"

He nodded absently. They entered the drug store and sat down. She ordered and he repeated it.

"Doesn't this spoil your dinner?" he asked.

"Nope. It's a long ride home and by the time I get there I'm hungry all over again."

"I suppose this snack is a sort of habit," he remarked idly.

"Uh-huh," she answered. "But it isn't too bad a habit."

He nodded in silent agreement. The sandwich came and was finished in a short time, after which Carroll and his young companion left the drug store.

Carroll took a quick look around him as they left but there was no car near them. He walked with her to the typing bureau, waited outside for her and then walked with her to the station. Then he went home to ask himself a multitude of questions.

This was her regular procedure. She said so. But which procedure was regular? Her drugstore and sandwich habit or the taking of a joyride with the characters in the car?

He picked up the paper she had dropped on the first encounter and looked it over. It was a formal report on the testing of some equipment that was too complex to understand. Something about a trimetal contact in an atmosphere of neon, completely sealed in a double-wall shield of copper with a low noise-level radio amplifier stage enclosed with the samples of metal in gas.

It became vaguely familiar after about an hour of study but it was painfully difficult for him to concentrate on such an abstract idea.

He considered again. Perhaps his presence had scared off the men in the black car. He'd do it differently next time. Again he watched her for a solid week—watched her reach the corner, turn, enter the black car—watched her return and continue on down the street with her box after fifteen minutes of being completely gone.

Then for the second week he watched from the drugstore.

And he emerged more puzzled than ever. For Sally joined him daily and talked with him as she had learned to do.

Then, to top his confusion, he watched the girl enter the car and drive off one day, after which he entered the store across the corner, to see Sally sitting there waiting for her sandwich and obviously expecting him.

"You're late," she said with a smile.

"I'm confused," he said dully.

"Did you ever see a big black sedan?" he asked her.

"Lots of them," she said. "Why?"

"Any one that you especially noted?"

"No. Most of them are filled with people going somewhere in a hurry," she returned with a laugh. "I often wish I had a car—or a friend with a car. I haven't got any—at

least none that work in this region of the city."

"Uh," he grunted. "I've got to hurry," he said with what he knew to be unpardonable shortness. "See you tomorrow?"

SHE nodded, and Carroll went out on the street in time to see her emerge from the black car and finish her delivery of the package to the typing bureau. He looked back into the store, but she was gone. Nor had she passed him.

That was enough for Carroll. He sought Dr. Pollard and told him the story. Pollard looked up with pleasure. James Carroll's acceptance of such a problem and the attempt to figure it out was an excellent sign. He could give no answer, of course until . . .

"Then come along," said Carroll. "We've time."

They went silently. Carroll pointed out the black car as it approached the curb and then took Pollard into the store to meet Sally. She greeted them pleasantly and did not demur when they left precipitately because she knew that Dr. Pollard was trying to help Mr. Carroll out of his difficulty. Carroll showed Sally's return from the black car, and the subsequent delivery of the box of papers to the typing bureau.

"Carroll," said the psychologist sadly, "forget it!"

"Forget it?" demanded Carroll.

"I saw no black car. You claim that Sally walked to the corner, turned away and entered a black sedan. Actually—though I said nothing—Sally crossed the street and entered the store. As we finished there and left she followed us, passed us on the sidewalk and delivered her package. This is merely a delusion, James."

"Delusion?" said Carroll doubtfully. "Am I— Am I . . . ?"

"I plead with you, James. Let me give you psychiatric help? Please?"

Carroll considered. Delusion—he must be going mad. "I'll be in to see you tomorrow," he said.

Pollard took a deep breath.

"Thank God!" he said.

James Carroll returned home in a dither. Regardless of the pain of—whatever it was—he was going to go through with this. Delusions and hallucinations of that vividness should not be. He must be in a severe mental state. He hadn't believed them when they told him that he had been a brilliant



physicist. But this well-proven hallucination was final. And before he got worse . . .

James Carroll was in a state over his state by the time he opened his front door. He entered the room, looking idly about him, half in fear of what he might see next.

What he saw was the sheet of paper with the report on it.

Could you feel an hallucination? Could you read an hallucination? How could a man with five nominal senses, all run by one brain, reach any decision?

He pressed the button on his wall and the housekeeper entered.

"Mrs. Bagby, I am in a slight mental turmoil. Please trust me to the extent of asking no questions but I beg of you to tell me exactly what I will be doing for the next few minutes?"

"I'll try," she said, knowing from Dr. Pollard all about Mr. Carroll's state of mind. She was willing to help.

"You are sitting at your desk, reading a sheet of paper upon which are some handwritten notes and a sketch. Now you are rising. You have just torn off an inch from the bottom of the page—where there is no writing. You are lighting a match, touching it to the end of the paper. It burns.

"You are walking toward the fireplace—moving swiftly now because the paper is burning rapidly. You drop it on the hearth—and the already-laid fire is catching. The chimney is smoking a bit and you are poking the fresh blaze."

He turned and faced her.

"Thanks," he said. "That's what I thought I was doing. Now, to avoid a mental discussion of personal metaphysics, I must establish the validity of this sheet of paper!"

The housekeeper asked if there were anything more to do, and Carroll shook his head idly. She left, and James Carroll faced himself in the mirror.

"Whose hallucination?" he asked himself. "Mine—or Pollard's?"

He recalled a tale of a man so convinced of his hallucination of utter smallness that he prepared trick pictures of himself, completely overwhelmed in size by the common water-hydra and its associated animalcules. Could he have prepared this report to support his own belief?

He smiled. Tomorrow he would know for certain! If his sheet were valid, it would be missing from the files. If anybody had interfered with the official channels of the reports

it had been someone other than James Forrest Carroll. Perhaps Dr. Pollard could identify the report.

Then he'd know who was hallucinating!

## CHAPTER III

### *Kidnaped!*

**D**R. POLLARD finished telling his story to John Majors and said, "The whole thing jells, John. Everything fits perfectly."

"I don't see it," objected Majors. "How can a man driven into a psychosis by overwork turn up concocting such a wild-eyed yarn as this hallucination?"

"Easily. Supposing that Carroll had come upon something basically unsound. Suppose all the rest had done the same, the other three or four. The tinkering with the notes is a normal justification for him—if someone hadn't been tinkering with the notes, the problem might have been solved long ago.

"Mrs. Bagby called me just before you came in, remember. I've taken time to inspect all the compiled notes prepared by the typing bureau from a couple of days before Carroll's illness to the present date. They're all present. I've also inspected the originals. There are none missing. Carroll's note must be a psychotic attempt to prove his sanity."

"How could he prepare such?" wondered Majors.

"Easily. It was done under a psychic block and the patient remembers only the true—his true—facts of how he found it on the street."

"Then you believe that Carroll was not on that corner on the day he first saw Sally get hauled into that black sedan?"

"He may not have been there at all. We all knew Sally's habits and that corner very well. That Carroll returned on the following days is a part of his justification pattern. The whole thing is very logical. And it is too bad. I was hoping that Carroll's interest in Sally was a glimmer of returning interest in life and work."

"The child is half his age," snorted Majors in derision.

"All right. So she's about seventeen. I don't expect any real attraction to develop—I'd feel much the same way about them if Sally happened to have been Tommy, the

co-op student. All I want is for Carroll to have an interest in something or somebody. I'd gladly offer my wife up as an item for his interest because I know that no fixations would come of it."

Majors scowled. "I couldn't say the same," he observed.

"That's because you do not know Carroll's underlying personality. I do."

"But you admit he's not the same man."

"He isn't—but his sense of loyalty is not changed. So long as he's that way there's hope for him."

"But what do you intend to do about him?"

Dr. Pollard laughed. "Me? I'm going to admit that maybe he has something there, but that this thing is problematical. Oh-oh. He's here," said Pollard, pointing to a winking pilot light above the door. An instant later his nurse entered and was told to send Mr. Carroll in.

"Can you prove the identity of anything?" demanded Carroll once the opening greetings and informalities were finished.

"It depends," said Pollard cautiously.

"Well, I have a sheet of paper here that came from that first day when I saw Sally confronted by the black sedan. Is this valid or is it false?"

"Since I can show you the original of that report, it must be false," replied Pollard. "You see, Jim, regardless of whether you admit it or not, you've been so close to the Lawson Radiation that you could easily fake up what might be a quiet valid report if you hoped to show some proof."

"But, good heavens, would I fake a report that I know will be matched by the original?"

"In your right mind, no. I don't know how much this last couple of weeks of problem did to sharpen you up, Carroll. But remember that you were hitting an I.Q. of about seventy after your—accident. A seventy I.Q. might be that dense and can be that dense."

"And, of course, the subconscious mind, hoping to salve your conscious mind, might do it. Now that you know it is false, perhaps your subconscious mind will bring forth something of a more convincing nature."

"If what I think is true," said Carroll slowly, "the same men who intercept Sally every day are quite capable of producing as good a counterfeit as I am!"

"I claim that there are no men in a black sedan."

"Oh?"

"Tell me, Carroll, how do you rationalize the fact of two Sallys?"

"I think there is something to all this that is far deeper than our five senses will admit," said Carroll flatly. "Some agency is doing all it can to prevent us from finding out about the Lawson Radiation!"

Pollard scribbled "persecution complex, too," on his scratchpad in a brand of his own unreadable shorthand. Then he said, "You're convinced to the contrary?"

"I am."

"Tell you what I'll do," said Pollard. "Since you think this affair is what you claim, I'm going to give you a chance to prove it. I'm going to advance Sally into the mailing department and let you take over the job of delivering those reports yourself. You feel that they might not be able to pull the wool over your eyes?"

"You know what I think?" said Carroll sharply. "I think that the days that I joined Sally for her sandwich I took a ride with her in that car, instead!"

"How do you come to that conclusion?" asked the psychologist, scribbling on his scratchpad.

"Because every day that I watched I saw her enter the car. Every day I was with her we saw no car. Could it be mass-hypnosis?"

"It might—but why weren't you hypnotized?"

"I don't know. Why have I got this amnesia?"

"It isn't amnesia anymore," said the psychologist ruefully. "It is now a definite psychic block against your former line of work, coupled with self-justified hallucination."

"I hate to puncture that bubble," said Pollard. "But I must. Take that job and find out for yourself!"

"I will," said James Carroll flatly. "You watch!"

"Good!"

"And I will not be stopping for sandwiches, either!" snapped Carroll. "Or, I might add, anything else!"

**J**AMES CARROLL tucked the box underneath his arm and set out along the street. He walked warily, keeping a sharp lookout for the black sedan. A few hundred feet ahead of him he saw Sally turn into the drug store for her habitual snack but he suppressed very quickly the impulse to follow her and talk to her about the job.



He stood on the corner of the square, waiting for traffic. It was a reasonably long-time light for the crosstown road, and Carroll reached for a cigarette. His pack was empty, so he crumpled it and tossed it in the nearby waste-chute and looked about him questingly.

The corner upon which he stood held a cigar store and James Carroll entered the shop to buy cigarettes. The store was rather full and he was forced to wait.

And it came to him, then. During that wait it came to his feebly-groping mind that this was the same sort of pattern that he had seen before. Was this truth—or reality? He smiled, and as the storekeeper came towards him, he looked the man in the eye and said:

"When did you split me off?"

There was a look of amazement on the proprietor's face—wonder, puzzlement and a scowl of slight anger.

"You heard me," said Carroll flatly. "What are you doing to my reports?"

"You're nuts," said the storekeeper.

"Am I?" replied Carroll lightly. "Then I'll tell you why. The Lawson Radiation comes from a system of interstellar travel, used by some race out in the Bootes region of the sky. The insoluble dilemma is how to go out to learn the secret of interstellar travel when I need interstellar travel to go out and ask the questions—"

The man's face faded, distorted like a cheap oil-clay image under too warm a light.

The store flowed down, too, and swirled around in a grand melee of semiplastic matter. The light inside the store darkened and the only illumination within the rolling, churning store came from a light that swung back and forth madly in front of the door.

Carroll fell backwards into a cushion of soft-plastic floor which bounced slightly under him from time to time. A low roaring mutter came to his ears. The light continued to swing but it was swinging past a window now and only in one direction.

He opened his eyes wide and faced the man in the seat beside him.

"Well?" he asked.

"It isn't, very," growled the man.

The driver turned, swore in a strange tongue and then turned the car back. The driver's companion picked up a small phone and spoke rapidly into it. The car rounded the block, re-passed the corner long enough to pick up a man dressed as Carroll was.

Halfway down the next block the man got out and took the box of reports. Then the car drove away and, as it pulled away, Carroll felt the jab of a needle in his thigh.

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## CHAPTER IV

### *Face to Face*

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**S**LOWLY, the initial thought that filtered through the velvety, comfortable blackness was that he was James Forrest Carroll. That established, the rest came with a swift flow of fact and acceptance in chronological order that brought him to the present date.

It seemed almost instantaneous, this return to reality. Yet in his drugged state, or rather the state of fighting off the last dregs of the potion, Carroll did not recognize the long interim periods of slumber. Actually it took him six hours to return to a full state of

[*Turn page*]

wakefulness. He was unaware of the slumber periods and they subtracted from his time-consciousness.

When finally he did come fully awake, it was to look into the faces of the two men who had abducted him.

"Wh—?" he grunted, believing that he uttered a complete sentence asking what the score was.

"You know too much," said the man on the left.

The implication did not filter in at first. It came very slowly that one who knew too much was often prevented from telling it to the right people.

Then he said, "What are you going to do to me?"

"Eliminate you," came the cold answer.

The other man shook his head slowly. "No," he said. "Not at once."

The first one turned abruptly. "Look, Kingallis," he snapped, "This one is a definite threat."

"And there may be others," smiled Kingallis. "We could easily eliminate him. And we will but only after we locate exactly what there is about him that permits him to be a threat to us. There may be others. We must stop them."

Sargenuti nodded in a sardonic manner. "Even in the face of a threat the great Doctor Kingallis must experiment!"

"I'll have none of your sarcasm!" snapped Kingallis. "You are not my equal by four groups. You are my underling and will therefore do my bidding with no quarrel."

"Yes, master," sneered Sargenuti.

Kingallis stepped forward and slapped the other across the face with the back of his hand. Sargenuti stood four inches taller than the doctor and outweighed him by at least thirty pounds. He could have broken Kingallis in half with his bare hands but he accepted the insult across his face without finching nor attempt to retaliate.

"Because we are isolated here, far from our normal surroundings, you have become slovenly in your attitude," snapped Kingallis. "You are no planner, Sargenuti. Your method is acceptable in some cases but you have not the intellectual equipment to cope with a situation as involved as this is.

"Whether you continue as you are, advance in your work or are dropped a group depends upon the future. Suppose there were several people involved that have his power?"

"There cannot be," returned Sargenuti.

"Fool! If there is one there may be others. Now do as I say without argument!"

Carroll listened to this discussion with interest. From it he learned that there was obviously some plot against the Solar System and that he, Carroll, was possessed of some factor that made his continuance dangerous to their plotting.

He half-smiled and said, "There are many like me."

Kingallis turned back to his captive and shook his head.

"No," he said. "There are not! Sargenuti had no trouble until he ran into James Forrest Carroll. That is why he is bloated with delusions of grandeur. He thinks because he has had no competition that he is supreme.

"He forgets the platitude, 'It is a sharp blade that cuts but cheese!' It is notable, however, that the first time he met James Forrest Carroll he was forced to call for help."

"I was puzzled," admitted Sargenuti.

"A slightly more intelligent moron would have known that this man was capable of avoiding your block," snapped Kingallis. "When he came forward to interfere the first time. That is when you should have caught him. Instead you ignored him for too long. Idiot!"

"All right," grumbled Sargenuti. "But this is just telling Carroll things he wants to know."

**K**INGALLIS smiled sourly. "Perhaps it is better that way," he said. "When he sees what he is up against he may be less violent."

"And if he again escapes?"

"He will not escape."

Sargenuti laughed roughly. "It would be drastically amusing to find that James Forrest Carroll is smarter than the great Doctor Kingallis."

"Shut up!" snapped Kingallis angrily.

He turned to Carroll. "You know too much," he said. "Yet I have no qualms about telling you more. It is our job to prevent the spread of knowledge about the Lawson Radiation, to discourage research and to cause the importance of the Radiation to diminish.

"We employ mass hypnotism to intercept the reports, to read them, to make the minor changes that prevent correlation of certain data that would lead to some discovery of



importance. This happens only once in a few months.

"We can tell by the title of the experiment whether it may or may not include a clue. When someone comes upon a real find we erase his mind."

"And I came upon something?"

"You did."

"What was it?"

Kingallis smiled tolerantly. "You wouldn't expect me to tell you?"

Carroll shrugged. "I suppose not," he said. "But just why do you think I am a basic threat to your plans?"

"Obvious. Of all, you are the first that ever came back to full control of his faculties after we erased your mind. The others have pain syndromes every time they consider research at all. You do not.

"Not only that, you were capable of avoiding the block. We used mass hypnosis on the people within a visible radius of that corner. Of them all, you alone can see the black sedan and the resulting interception."

"But when I went with Sally you intercepted me, too."

"Of course. But you were then right in the main focus of the control beam."

Kingallis turned to Sargenuti. "I thank you for not killing him under the beam," he said. "Your unimaginative mind might have done that. It would have erased a danger, true, but would have prevented our study of the danger at first hand."

Then he turned back to Carroll. "We might not have been able to kill you, at that," he said. "I don't know. You seem to have become stronger each time you underwent the control instead of becoming weaker like the average subject of hypnotism."

"But—?"

Kingallis shrugged. "Most interesting," he said reflectively. "Most interesting."

"What is so interesting?" grunted Sargenuti.

"Consider," said Kingallis. "He finally entered direct control alone. He was the focus. You did succeed in controlling him to a certain point but James Forrest Carroll—mentally living in a perfect dream—recognized the fact that this was not true.

"He broke the dream, the power of our beam. His unaided will power, Sargenuti, came up from below a sensory delusion and forced recognition of the truth against the evidence presented by his physical senses."

"So?"

"So," concluded Kingallis, "We shall find out what it is about this man's mind that is powerful enough to overcome the power of our beam. For, Sargenuti, we may encounter others."

**I**N THE days that followed, one upon the next in a never varying monotony, James Forrest Carroll increased both his store of knowledge and his judgment. It has been said that wide experience is a condition wherein the possessor can fall back upon some personal precedent for any situation that arises.

Carroll, however, could have no such precedent, nor is it likely that any man or all men combined could piece together a reasonable decision based on piecemeal precedent. Therefore Carroll faced the situation with a complete lack of experience.

He realized that making any decision now would be so much tossing of a coin. Lacking the full particulars, the reasons, the understanding of the other race's motives, he could make no plans.

Yet he did know from experience that the best way to lay a cornerstone upon which to build a plan was to wait, to study and then, when the final returns were in, to decide.

Kingallis had confirmed Carroll's suspicion that an Extrasolar agency was doing its utmost to prevent the spread of knowledge about the Lawson Radiation.

Kingallis had not mentioned why.

The facts that Carroll had were sketchy. He knew only what he had already suspected. He had been kidnapped. He knew why. The latter reason was both logical and also a perfect answer to a paranoid question.

He shied away from it, and recognized his own unwillingness to face the fact. That in itself bothered Carroll because he disliked to think himself insane, even though he often questioned his sanity.

Carroll found that none of this was reassuring. There was no equitable yardstick that the mind could apply to itself. It is often said that the insane cannot question their own sanity—that to question your own sanity is a sign of stability.

Yet it may be quite true that a clever paranoid might question his own sanity regularly as a means of proving to himself that he is sane. Carroll played with this mad spiral often and found it a vicious circle.

So in between his sessions of study, James Forrest Carroll tried to delve into his own

mind. He had come to only one conclusion: That so long as Kingallis was studying him, he was able also to study Kingallis.

The problem of why bothered Carroll.

Mankind has never ceased to study anything that might prove dangerous. Almost any discovery made is dangerous in some manner. It is just that mankind has learned to handle its discoveries with care as they became useful. Or else—

He tried broaching the why to Kingallis and was brushed off openly with, "It is of no consequence."

Carroll considered two possible answers. One, of course, was that Kingallis and his people were suppressing all study to prevent the Terrans from learning about interstellar travel for purely personal reasons. You do not give away your military secrets to a people you hope to destroy.

The other reason was the complete opposite—the other race, knowing the dangers of research, were trying to keep Terra from becoming involved until Terra grew up. Handing the secrets of nuclear fission to a race not yet ready for it was one example, though a bad one, for it takes considerable technical excellence to handle it.

A simpler case is plain black gunpowder—sulfur, charcoal and potassium nitrate. Boys in chemistry class have lost their hands and their eyes because they played with that which they did not understand well enough. The nitration of glycerine is not too hard to perform, yet in the hands of an amateur it may take the house skyward before the project is finished.

For, strangely enough, the amateur at any science feels that he must make a large batch in order to do it at all. In electricity he wants excessive powers and lethal voltages to do that which a trained technician can accomplish with less deadly items.

However—was the motive avarice or altruism?

James Forrest Carroll studied them as they studied him.

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## CHAPTER V

### *Kingallis*

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**K**INGALLIS himself put an end to one of Carroll's worries. After several days of study, the alien doctor called him aside.

"Carroll, you know that you are helpless," he said. "We know that you are helpless. The point is just this: We can study your mind better if you are not worrying. Therefore I am going to put an end to one major worry of yours. Remember, always, we know that you are studying us!

"We are using the forerunner of our mental control beam to study you, Carroll. You know that. The mental educator came first, the mental control without wearing electrodes came long afterwards."

"Understandable," nodded Carroll easily. "Men learned to communicate along a wire long before they used radio."

"The gadget we've been using is none other than a person-to-person telepathy aid. It was first developed as a means of placing men *en rapport* while studying a complex problem. Thus, for instance, a machinist can do a job for an electrical project while understanding perfectly just why this must or must not be done despite its mechanical desirability.

"It was but a step from that to its use in educating the youth of our race. A rather complex problem, Carroll, and one that cannot be appreciated until the whole problem is studied complete with both successes and failures.

"We taught then, Carroll, from a teacher-to-student plan. Later it was discovered how to record certain phases of lessons. The latter removes one main difficulty of the automatic educator."

"Mind telling me what?" asked Carroll, fencing for more information.

"Not at all. You see, the living hookup produces a double flow of information—which is what I meant to tell you. You are studying me as I am studying you—and, as in the case of an infant with erroneous information, you are placing errata in the teacher's mind."

"All children know—from their limited visible evidence—that the earth is flat. Only deep study proves otherwise. I can see where a continued youthful insistence upon a flat earth might cause a bit of mental collision in any teacher's mind." Carroll's voice was sharp.

"You have the point exactly," smiled Kingallis.

"Then tell me," Carroll said suddenly, "why I cannot find out why you are suppressing the information I want?"

"Because we are not studying that," smiled

the alien doctor. "I surprise you? You expected me to wish my answer recalled? No, Carroll, I care not that you know some things about us."

Carroll shrugged. Kingallis was clever. Had Carroll known that worry hampered the study he would have felt relieved even though he tried to worry more. That would have been a minor defeat.

But the fact that Kingallis knew and cared not, removed all concern from Carroll's mind but one, and that one was how to hamper the research alone. It was not a satisfactory question as there was no satisfactory answer.

It was many hours later that both a possible answer and a complete impossibility of its use came to a sleepless man. Carroll arose from his bed and tried the door. It was open. Carroll's enforced residence was a large estate, a good many miles from town, in the center of a hilly country.

Carroll left his room and went down the hallway to the laboratory. He prayed that no one was following him with a mind-reading beam of some sort. He guessed that if these aliens could control an entire community with a mental beam, it would be no trouble to read his mind.

**H**E FOUND the cabinets that contained the records of knowledge used by the aliens. These were large reels of wire in metal magazines. On the face and back of each case was its title in the—to Carroll—completely unreadable alien characters.

That was a problem in itself. A lot of good it would do to acquire useless knowledge. Carroll wanted scientific facts or perhaps a recording of their plans. A complete course in alien geography, for instance, would be completely useless—the aliens seemed disinclined to take him from earth.

Yet Carroll had no way of knowing what these characters represented. A book might have given a clue—books often contain pictures. There was no telling on a reel of wire.

Carroll wondered whether the reels were stored in some sort of alphabetical order, in some numerical order or according to some semantic plan that gave the initial startings first and permitted the selector to progress. He knew, however, that if he were running such an expedition, he would not include Guffey's First Reader among the collection of texts. His chances of learning the rudiments of the alien tongue were remote.

In selecting a book one scans through the pages. In selecting a reel one must try it.

So, making a guess, James Forrest Carroll selected a container at random and, still amused at the guesswork quality, he carried it to the machine used by Kingallis to study his mind.

He flipped the switches as he had seen Kingallis do it. He inserted the reel magazine in the obvious slot and fiddled with some tiny toggles until the reel started to feed through the machine.

Then quickly, Carroll slipped the head electrodes on and reclined on the soft couch to let the flow of knowledge enter.

In complete oblivion as the machine ran, Carroll had no control over his actions. It ran on and on and the unreeling wire passed its knowledge into Carroll's brain. It concluded finally and Carroll sat up.

It was faintly light outside and by that faint light Carroll looked at his watch and was amazed to find that it was almost six o'clock in the morning. He quickly replaced the reel and turned to go back to his room.

"Pleased with yourself?" asked a quiet voice.

Carroll jumped a foot. Then in the dim light he saw the form of a woman, fully dressed, sitting in an easy chair not far from the door. To add to his complete surprise he hadn't known that women were with this outfit.

"Who are you?" he demanded.

"Plead, do not demand," she said. "For you have not the right to courtesy."

"Madam, I am a prisoner here. Courtesy *per se* has no meaning at all. I have as much right to prowl the place, picking up what I can, as you have to imprison me in the first place."

"A nice point of ethics and quite devoid of rational answer," smiled the woman. In the gaining light James Forrest Carroll saw that she was passably good looking though certainly no raving beauty. When she spoke, her white teeth gleamed in the dim light.

"However," she said, "I am Rhinegallis, King's sister." Then she laughed. "And that," she said, "is the only thing you learned this evening!"

"Oh, I'd not say that," said Carroll.

"Then tell me," she said amusedly, "how you justify yourself."

**C**ARROLL paused. Somehow it seemed normal to him that he should not care



to appear weak or helpless in front of a woman, even an alien woman. Yet the truth of the matter was that Carroll was a complete captive and at the mercy of this bunch.

Whatever he did he did at their sufferance. There was little to be gained by quiet ridicule in explaining that he had taken a recording by sheer blind-guesswork because there was no other way.

There was little to be gained but open ridicule to be forced to admit to this woman that he, James Forrest Carroll, reputed to be one of the Solar System's foremost physicists, was in a position seldom if ever occupied by any human being.

He knew and he knew that he knew, but he knew not what he knew!

He laughed helplessly. "*Son lava tin quil norwham enectramic colvay si tin mer vo si—*"

"Very lucid," she replied in English. "So in the course of the evening, James Forrest Carroll has a complete course in our science—in our language-pattern in our manner of thinking. And," she laughed merrily, "of none of which he has the slightest comprehension.

"That was a nice try, Carroll, but availing nothing. I'll tell you this, however—what you have learned this night is of no more use to you than a complete knowledge of archeology so far as an answer to your present problem goes.

"And for your trouble—it is a rather complimentary thing that you'd make such a try, and we'll all commend you—I'll be your guest for breakfast."

"Thank you," said Carroll cryptically. "I hope I'm amusing."

Rhinegallis stood up and faced Carroll. "You are quite a man," she said earnestly. "And though we must—use you—we still admire you."

"One might admire the tenacity and ability of a pet dog who is working its way through a maze toward a hunk of steak," he said quietly. "Yet one does not consider the dog our equal."

Rhinegallis shook her head. "Would it please you to know that you are a threat to us?"

"I've known that," he returned quickly. "And so is a dog a threat to man. Dogs can kill. They do not because they know that they are dependent for life upon becoming man's friend."

"And you?"

He smiled sourly. "Again the question of

ethics," he said. "For no matter what I say you know that I shall do anything I find necessary to defeat you."

"We will never accept your word as bond," she told him. "Were it a simple matter of personal integrity and honor we could take it and be satisfied. But there is too much at stake. A man would be a complete fool to give his word and keep it when his future hangs in the balance."

"I'd not give it," he said simply. And then he turned to her with a cryptic smile. "So my future and the future of Sol are really at stake?"

"Yes," she replied.

"Then you are a threat."

Rhinegallis smiled at him. "Is one a threat that does not permit the child to play with fire?" she said coolly.

"May I point out that I am not a child," he said crossly.

"*Ros nile ver tan si vol klys,*" she said in her own tongue. "And if you know what I said you'd know what you studied last night."

"When a child is deprived of matches, he is told why—in many cases he is shown mildly what happens. So go ahead, Rhinegallis, treat me as a child—and tell me, Rhinegallis, why I must not play with the Lawson Radiation."

"It is dangerous," she replied.

"In my lifetime," he said, "I have been responsible for the direction of many children. I have yet to turn away a curious—honestly curious—child. Mankind is always curious—providing we know why."

"It is dangerous," she repeated.

"Dangerous," he echoed. "Dangerous, Rhinegallis, to whom? You?"

"Mr. Carroll," she said quietly, "you think you have trapped me into an admission. You have not. Tell me, do you honestly think you can take the position of demanding an answer?"

"I think so."

"You cannot. You have not."

"No?" he said with a bitter laugh, "then if your race has no evil intent it could stop a lot of trouble, suspicion and labor by guiding us instead of blocking our efforts. Add to that your own refusal to tell me one thing that would frighten me away. I come up with a rather unhappy answer, Rhinegallis."

The girl turned away and left. Her offer to join him for breakfast was forgotten. Carroll watched her back as she went down the hallway and considered himself lucky.

Even considering that their way of life was alien to Terran thinking, no advancing race could ever deny honest curiosity unless it had some ulterior motive. Ergo, they were suppressing the truth about the Lawson Radiation because they were afraid that Terra would find the answer!

From behind him he heard Kingallis chuckling.

"*Val tas Winel yep frah?*"

Carroll turned angrily. "Sell it to Tin Pan Alley," he snapped. "I've heard worse jangle songs!"

He stamped off angrily to his room.

## CHAPTER VI

### *Proof*

ONCE in his room, Carroll gave way to a period of complete slump, both mental and physical. He just sat there and felt—not thought about—the sheer impossibility of a single man successfully fighting an entire inimical culture.

The more he considered it the more he felt the futility of it all. The fact that he of all the teeming billions of Sol's heritage, was cognizant made it that more hopeless.

Then out of that last, single, hopeless fact James Forrest Carroll took a new hope.

For upon himself and himself alone rested the salvation of mankind! Regardless of what the world might think of him, regardless of life itself, he must carry on!

And when he returned to confront Doctor Pollard he must have visible proof!

The day dragged slowly. As usual, Kingallis did his studying, but found it hopeless because of Carroll's deep funk. Kingallis gave up and left Carroll, which was worse for Carroll because he had all those long hours in which to sit and stew.

Evening came, and with it came more hope.

Whatever it was that Carroll learned it was there and stuck tight. Whether valid or useless it was there. It seemed useful but he could not tell.

For instance there was a concept of a circlet of silvery wire. This was mounted on a small cylindrical slug of metal that enclosed a bimorph crystal. The picture concept showed contour surfaces of force or energy that grew progressively fainter as

they retreated from the circlet of wire.

Not magnetism—for Carroll could see no energizing current. Not electrostatic field—for there could be no gradient. The word-concept for the thing was "*Selvan thi tan vi son klys vornakal ingra rol vou.*"

Well—whenever Carroll knew words he would know what the circlet of wire did—and why.

But as he drew the diagram on a sheet of paper and labeled each part with a Terran symbol-system representing the alien sounds Carroll understood one other thing. No book is complete without an index!

Wire recordings of text books are impractical otherwise. An engineer seeking information on the winding, packing fraction of a certain type of wire would not care to wade through four hours of facts. Of course he should know it already, for the facts would be indelibly impressed upon his mind.

But there was the forgetting-factor that comes from disuse of any fact and doubtless this automatic means of education did not forever endow the owner with an eidetic memory of everything—never to be lost no matter how long the facts lie in disuse. But every text book has an index.

And so Carroll sought the laboratory again that night and selected another roll at random. He placed it in the machine and, as he started it, hurled a thought into the machine.

Not words, but mere concept—the abstract idea of listing hurled into the machine and the wire reel sang swiftly through the machine to slow down at a listing.

Useless, of course—there were things like, "*Walklin—norva Kin. Fol sa ganna mel zin.*" Chapter and verse, probably. What Carroll sought was a dictionary.

He tried another reel and found it as mystifying. A third reel came upon a listing that seemed vaguely familiar. Along with the mere words, of course, there were mental pictures.

"*Zale,*" he learned, was a measure of distance equivalent to seventeen thousand times ten to the eighth power times the wavelength of the spectroscopic line of *evaalorg*.

Carroll had hit upon a section of physical identities found in most physics texts.

HE ALSO learned a large number of physical identities of no consequence. The unit of gravity expressed in the alien terms meant nothing to a man used to dynes

and pounds. There was too much left unsaid.

What the element *evaalorg* might be Carroll had no idea, although if he persisted he might hit upon a chemistry text—and it was safe to assume that the Periodic Chart of the atoms would be the same in any of the galaxy.

He smiled. It was like trying to calculate the true size of Noah's Ark by assuming the length of a cubit. When you have finished calculating you have a plus or minus thirty percent.

He was about to select another case when the door opened softly and Rhinegallis entered.

"Why do you try?" she asked. Her voice and her manner were as though she had not walked away from his question of almost eighteen hours ago.

"Why?" he repeated dully.

"Yes why? Why do you insist in the face of the impossible?"

"Because," he said, facing her deliberately, "when I admit defeat James Forrest Carroll dies!"

"You're not suicidal."

"Madness," he said, "is suicide of the mind!"

Rhinegallis nodded and then looked down. He went to her and lifted her face by placing a hand under her chin.

"Rhinegallis," he said softly, "place yourself in my position. You are a prisoner of a culture that is inimical to your own. You are kept alive as a museum piece, a sample of life that refuses to be swayed by your mind-directing machinery. Of all the people of your race, you are the only one that knows and believes.

"Death—or worse—awaits you and yours at the end of some unknown time. You are in the position of being the only one that can do anything at all. Tell me, Rhinegallis, would you sit quietly and accept it?"

"Since I would be unable to do anything alone," replied Rhinegallis, "I would accept fate."

"Then die!" snapped Carroll. "Do nothing? Try nothing? That is stagnation—and stagnation is death!"

"I think Kingallis knows that," said the alien girl with a flash of recognition.

"Oh," said Carroll, crestfallen. "Then Kingallis gives me some old outdated volumes of books to play with, as a willful child is directed to cut old rags instead of the lace

curtains. Since I must play games, by all means give me games that will harm no one!

"Mumbletypeg labeled 'dangerous' and celluloid toys made up to resemble fierce knives on the theory that children prefer such toys of the block and rattle nature. Bottles full of colored sand with skull-and-crossbones on them and directions against certain mixtures.

"The amusement-park roller coaster that seems dangerous—in fact someone knows someone who knows of a bad accident on it—but is, in fact, less dangerous than a ride in an automobile through traffic."

Rhinegallis was silent.

"Then what am I to do?" he stormed. "I have no one here of my own kind. Not a single understanding soul to lean upon in a moment of stress. A man alone in an inimical environment—and I am expected to play your tricks for you!"

"You—"

"Am I expected to aid you?"

"No," she said honestly. "Yet in deference to you—"

"Deference!" he laughed scornfully. "Deference? No, Rhinegallis, not deference nor even respect. I am the experimental dog that must be pampered because my life and my mind and my body must be studied. Not deference, Rhinegallis, but the deadly fear of a spreading poison. Isolation."

"I am afraid that I should not have come," she said—but it was more a spoken thought than an attempt to convey anything.

"Then you tell Kingallis that no man will strive forever with no result. The donkey must once in a while get a taste of the carrot."

"What do you want?" she asked softly.

"And if I tell you will I get the truth—or just more runaround?" he asked.

"You are too suspicious," she said softly. "Deference you may not have, really. But you do have respect."

"What manner of respect can you possibly have for me?" he said with an open sneer.

"You are a strong man," replied Rhinegallis. "Your strength is sufficient to penetrate the mental beam. To defy King's attempts to study you, bar my tries at following your reason. Kingallis can point the remote hypnosis beam at me and from it can read my innermost thought.

"Against all resistance the hypnoscope is best—except against James Forrest Carroll. You, Carroll, resent this studying and prying.



Know—and feel gratified—that as little as you have learned from my brother he knows less of you!"

"And after defying all to completion the defiance is obliterated," replied Carroll bitterly. "For me—oblivion. For mine—what?"

"It need not be—loneliness," she said in a soft voice.

"Joy in the shadow of the sword?" he said sourly. "Pleasures of the flesh with an alien race that would not even understand my passionate gesture?"

He laughed shortly and roughly.

"Affection is but a prelude to understanding between mates. Tell me," he said with extreme cynicism, "have you laid your egg this year?"

"You—no!" she said quickly. "I was but trying to ease your lot."

He dropped his cynicism instantly. Rhinegallis seemed honestly hurt at his calloused attitude.

"You cannot, Rhinegallis," he said softly. "I am no longer a youth, to whom personal passion and pleasure is the ultimate. I give you a demonstration of affection." He placed both hands upon her shoulders and squeezed gently. He leaned down and kissed her lightly. "Not deep, but still a genuine gesture. Do you respond? No, you do not, for your race is utterly alien despite your appearance. Do you then expect me to continue, knowing that you do not even understand why I might derive sensual pleasure from such contact?"

"Even though we be alien," she said, "the fact that you do enjoy contact might give me—"

"Stop rationalizing," he said roughly.

"I'm not," she said. "There is a meeting of minds that far exceeds any crude mating of bodies."

"Then," he said with a queer crooked smile, "let's keep this on a mental basis, huh?"

**R**HINEGALLIS nodded quietly. She went to a side cupboard and took out a single reel of wire.

"Here is what you want," she told him. "Swiftly now, for Kingallis must never know."

"A nibble of the carrot," he observed.

"You want a whole meal?" she returned angrily. "Are you devoid of understanding?"

"I am permitted to play with innocuous trifles," he said. "When I discover their ineffectiveness I am invited to seduction. Fail-

ing that, I am offered some trifle of value. Tell me, Rhinegallis, how far will you go to lull my mind into inactivity?"

For answer, Rhinegallis turned and left him. Perhaps if Rhinegallis had been one of Sol's children she might have been crying or at least racked with the bitterness that comes of having an honest gesture scorned. Whatever her reaction Carroll shrugged as she left the room and he forgot her as he looked at the single recording.

"I hope," he said, "that this carrot is sweet. . . ."

Carroll came out of the semi-coma produced by the machine with a premonition of danger—not danger to himself, but a vague unrest, as though someone near to him were being threatened. He was alone and he knew at once that Rhinegallis was the only one of the aliens who knew the truth of this night.

Had any of the others come, they would have seen at once that he was working on a volume of importance and would have stopped him. However, as the minutes passed, the feeling of worry ceased and Carroll felt relief.

He attributed the feeling to a situation known as "wandering concern" which is based upon insecurity. He had been in the mental coma for hours, during which time much might have happened. He had succeeded, with Rhine's aid, in delving into the truth about the alien culture.

This placed him in jeopardy for while they laughed behind his back for toying with the useless records, their derision would change to far deeper distrust and hate were he known to have outguessed them. There is nothing more dangerous than turning a man's bitter joke against him.

So for hours Carroll had been both helpless under the machine and also doing that which was forbidden. He was like the small boy who has been swimming and is not certain of his future until he meets his parents and discovers whether they know of his truancy.

Carroll replaced the record. There was no sense in permitting Rhinegallis to be trapped. Besides, this might go on for some time—and if he could he would fight this out to the very bitter end. Who knew what he might learn next.

This night's work had been language. Not that the volume taught him Alien. It was a volume for aliens, to teach them the Terran languages. But by reverse reasoning it also

taught Carroll the alien tongue as well as a couple of good Terran tongues he did not know. He was—because he formerly possessed an excellent knowledge of American—now possessed of Russian, Chinese and Spanish, as well as the single alien tongue.

For the record dealt with concepts and then impressed the word-symbol of the idea in all tongues. And if *Hombre* means *Man*, conversely, *Man* means *Hombre*!

Best of all it was a specialized course that dealt with the kind of language scientists and engineers would use, though not exclusively so. Carroll felt cheered. Now he might mingle with them if he wanted to. Stealthily he left the laboratory to return to his room.

## CHAPTER VII

### *Free-for-all*

CARROLL passed a partly opened door down the corridor, and as he passed, he heard Kingallis utter a single word of dislike at someone unknown. Though it was in the alien tongue Carroll's well-trained mind gave him the translation in terms of real meaning rather than the transliteration of the word in terms of his mother tongue, as is often the case with a language learned after the initial schooling as a child.

Carroll paused instantly, and as he did so, the door opened more, showing both Kingallis and his sister. Kingallis shook his head angrily.

"So you gave him the record," he said flatly.

Rhinegallis was silent. It was obvious to Carroll that there had been accusation and denial previously but that his instant recognition of the alien word had been perfect evidence. Carroll sailed in instantly.

"She's given me nothing," he said sharply. "I just happen to be curious."

Kingallis turned from his sister to face Carroll.

"That is a bald-faced lie," he said.

Carroll's reply was in the alien tongue, a rather harsh alien platitude pertaining to the fact that a guilty man always requires a sucker to account for his own mistakes, whereas an honest man can admit an error.

Kingallis sneered and his eyes became glittery-hard.

"She gave it to you," he said. "This I know." He pointed to the minute temple-electrode—flesh-colored—and the spider-web thin wire that ran to the flat bulge in his coat pocket.

"So?" snapped Carroll. He measured Kingallis deliberately. The alien had a few years to give away, but Carroll had a few pounds to make up the difference. Also Carroll, being slightly older, was more of a competent judge of men.

Though this was not a man-to-man affair Carroll's judgment of the alien might be better than the alien's judgment of him. Furthermore Carroll knew himself to be cool-headed and alert.

"So Rhine has defied our rules," snapped Kingallis.

"And?" inquired Carroll overpolitely.

"Crime—and punishment! She has endangered our very future!"

Carroll smiled. "Seems to me that you have spent a number of years endangering the future of Sol's children," he said cynically. "Perhaps it is time to switch?"

Rhinegallis stood up. "I have as much right as you," she snapped at her brother. "My position is as high 'as yours. Carroll discovered that he was being tricked. Therefore there was nothing else to do but to regain his confidence."

"Seems to me that Carroll's discovery was entirely due to your inability to cope with him," snapped Kingallis angrily.

Rhinegallis laughed bitterly. "When will you learn," she asked sarcastically, "never to try to play games with your mental superiors?"

Kingallis fumed, "Shut up!" and, turning, back-handed Rhine across the mouth. The girl retreated, her hand to her face, covering the patch that was swiftly growing red. Kingallis followed her across the floor.

Carroll followed Kingallis. He caught the alien by one shoulder and whirled Kingallis, spinning him off balance. As the alien turned, Carroll's fist came across in a short jab that had every pound of weight and every erg of muscle energy behind it. He connected and it sent Kingallis reeling crazily across the room.

Carroll followed, warily. Kingallis recovered and struck out at Carroll, but his mode of fighting was untrained from Terran standards. Carroll opened his right hand and chopped viciously at Kingallis's throat, but caught the alien's arm instead.

**T**HE alien yipped from the pain and Carroll followed him close and brought his fist up from under and caught the alien in the pit of the stomach. Kingallis folded over the blow and then unfolded in a series of retching gasps, his arms and legs working to bring him air.

Carroll lifted his foot. He drove it forward, heel-hard, against the alien's temple. The blow crushed the temple electrode into the skull as Kingallis went inert upon the floor.

"Come!" snapped Carroll.

"Come? Where?"

"Out of here!"

"But—?"

"Come along. You don't want to wait for the rest, do you?"

Rhinegallis took a quick look at her brother's inert form.

"Is he . . . ?"

Carroll grunted. "I'm not interested," he said. "Come on—you've got to show me the way out!"

"But I can't do that!"

Carroll advanced upon her. He caught her arm and brought it up behind her. He lifted gently.

"Now," he said, "you're going to show me the way out of here or I'll twist this off, see?"

"But I mustn't," she said.

Carroll smiled sourly.

"Rhine," he said pointedly, "you've lost your home right now. From here on in you are on the outside of your camp. Your best bet is to throw in with me and at least stay alive."

"I'll never help you."

"Fair enough," he said. "For I didn't help you. But this will let you know that Terrans have an attitude known as 'gratitude' which to your alien concept is both foolhardy and

decadent. But no Terran, no matter how much he hated his enemy, would abandon to them one of their own that gave him help. We protect our friends, Rhine."

"Then we must hurry," she breathed. "But where can we go?"

"Where?" he echoed cheerfully. "We've got the whole world before us!"

"But you must hide as well," she said simply. "Because my friends will be seeking you in earnest, now."

Carroll nodded as he caught the implication. "I shall return to my friends," he stated flatly, "when I have evidence enough to prove myself. Then your people can go ahead and kill me if they can—but my world will be protected. Until I can convince them, I am the slender reed upon which depends the future of Sol. And," he added bitterly, "against what?"

"That I will never tell you," she said. "But we must hurry!"

It was five days later that Carroll's roadster—stolen from the alien's garage—arrived before a summer home in Wisconsin. Twenty miles from the nearest town of consequence it was set in a woodsy area near one of many small lakes.

"Here," he said happily, "we can hide—and we can live—and we can work!"

**P**OLLARD slowly shook hands.

"Carroll again?" asked Majors.

The psychologist nodded wearily. "For some time he has been working quietly, though with deep preoccupation, which I suppose is normal. Whether he has been pondering over the absence of that black limousine and its mythically inimical occupants, I cannot say."

[Turn page]



"But what happened this time?"

"He has disappeared!"

Majors blinked. "Just like that?"

Dr. Pollard smiled and nodded. "Just like that!"

Majors thought for a moment. "We can locate him," he said uncertainly.

"No," Pollard said finally. "That will not do. The chances are very high that Carroll may have gone to his summer home."

"Well, let's find out."

"Let him alone. You underestimate the cleverness of the paranoid. He will detect any surveillance. It is my contention that Carroll may have had a glimmer of lucidity—that he may have been partially convinced of his error.

"Majors, there is only one way to cure a paranoid and that is to let him cure himself. Once his own evidence shows the truth, then he will believe. But until that time, all evidence either supports his theory or it is a canard produced by those who want to show him wrong."

"So?"

"So let him be. He can do little harm. In the case of the normal paranoid harboring a persecution complex, it is something tangible against him—wife, neighbor or friend. In that case it is best to do something quickly to protect the innocent. But in Carroll's case it is an intangible—remember the case, Majors?"

"Of course."

"Well, it hasn't changed a bit. Carroll undoubtedly discovered something that his mind refuses to recognize. Therefore this hallucination of the inimical race that is barring Terra from progress.

"What Terra needs more than the man himself is to know what Carroll discovered. I don't know what he's doing nor where he's doing it, but we'll find out—and we'll let him alone."

"Sort of futile, isn't it?" asked Majors.

"It's soul-scarringly futile," said Pollard hopelessly. "He will resent any outside help that does not eagerly agree with him—and then suspect it of chiding tolerance. He can come back only of his own machination. But to probe further at him will drive him only deeper within himself."

Majors nodded. "We'll get young Sally back on the delivery job. At least until James Forrest Carroll reappears again."

Dr. Pollard nodded absently. "And may whatever he is doing bring him to reason!"

James Forrest Carroll sat on a tall stool in front of a workbench in the cellar of the summer home. Before him was a maze of equipment, a pile of written notes and some haywire circuits. He was smoking furiously to the amusement of the girl who sat reading in the single easy chair in the cellar. Finally she put down her book and looked up at him. "Why did you accuse me of laying eggs?" she asked.

Carroll turned with a smile. "A shot in the dark," he said.

"It's not true," she said. "I'm no—"

Carroll shrugged. "Anthropomorphists have spent a lot of time showing that the humanoid form is best adapted to house intelligence," he said. "The upright carriage, the evolution of the forelegs into facile hands, the placement of the sensory-system in close locale to aid one another.

"The opposing thumb and the ability to lift either a sheet of cigarette paper from the floor or a small anvil from its rest. More and deeper-involved reasons can flow than you can think about."

"Which may all be true," she said pointedly, taking a cigarette from the package and lighting it deftly. She stood up then and rotated swiftly so that her skirt swung out.

"It may all be true," he said. "But not necessarily a matter of exclusive truth. There may be a batch of intelligent octopi and I'll bet that they have ah—er—octopomorphists—sitting around telling the little octopi that their shape is best adapted to house intelligence."

"All of which answers no question," she told him with a smile.

"So you have a humanoid shape to a remarkable degree. This shape is enhanced by the Terran clothing and the Terran cosmetics and, I might add, the Terran surroundings."

"Do go on," she said with grim humor.

"Your metabolism is not too different," he observed. "At least your digestive system is about as unselective as the Terran. That is normal for any reigning race of a system. Undoubtedly you do have a close approximation of the molecular structure, since I know that your planet is very much like Terra.

"Unfortunately I am not as deeply versed in organic chemistry as I might be or I'd be able to make a few tests. But, Rhine, the idea that two races in the galaxy being so similar in every way that they are cross-fertile is postposterous!"

"Eternity," said Rhinegallis with a murmur, "is that length of time necessary to permit everything to happen at least once."

Carroll grinned. "And that will be the last probability—and furthermore eternity will be sitting on its fundament for ten thousand galactic years after everything else has happened waiting for that little item to show up so it—eternity—can fold up and go home!"

**H**E TURNED away from her and addressed himself to the equipment again. He worked at it for an hour and then turned to her with a cryptic smile.

"You're a rather dangerous responsibility," he said.

"I know but it was your idea."

"What bothers me," he said thoughtfully, "is whether you will hinder in the end. You will not help now. But will you give me trouble later on?"

"I don't understand."

Carroll thought for a moment before answering. And when he did, it was on another subject.

"I need more information," he said.

"But why might I hinder?"

Carroll smiled widely. "If you don't know," he said, "I'll not be the one to suggest it. But I need information."

"Don't ask me to get it for you."

"I won't. I have little need. I can get it myself!" he said with a deliberate show of independence.

Rhinegallis looked at him steadily. She nodded. "I'm going too," she said.

"No—and why if you deny me help?"

"Because you aided me."

He shook his head. "That was because you were in trouble for having aided me."

"I aided you in the first place because you deserved it," she said softly. "And it does not negate my debt."

"But what do you hope to accomplish? Do you hope to trap me?"

"No."

"Rhine," he said, standing up and stretching, "you do not really understand Terrans. Remember this—I took you out of that concentration camp because I needed your aid in getting free—the guards, the garage attendant, to say nothing of the way home.

"I took you along because you were in danger—because of helping me, regardless of your reasons. Therefore I shall see that you are protected—now, against your own

race—later against mine."

"Later?"

"After I unravel this mad pattern."

"You always insist upon some mad pattern," she smiled. "Really, it is very simple."

He looked at her angrily. "Just ignore it and maybe it will leave, huh? Bosh!"

"You can do very little against a phantom," she said.

"And therein lie my feelings," he said harshly. "This is more than honor, more than life itself. I'd have little compunction against killing you if it meant that the truth were to be known."

Rhinegallis shrugged. Her life was forfeit anyway after the run-in with her brother.

"But you said something about wanting more information?"

He nodded. "I'm no doctor," he said. "And my knowledge of the finer points of biochemistry is sadly lacking."

"You—"

"I intend to find some way of telling you aliens from humans," he said quickly. "There must be some way."

She smiled tolerantly though there was a question in her eyes.

"I intend to see that you have a most thorough medical examination," he told her. "There must be visible differences which can be told once they are known. Differences which"—and he nodded at her very human figure with its soft curves—"cannot be simulated by artificial means."

She chuckled. "Even though many of the means of wearing a desirable figure have been invented and used by human beings for many years? Don't blame me for that, Carroll. My figure is mine own."

"Then," he said in a hard tone, "let me see!"

"Call me what you will but I have a normal modesty."

He frowned scornfully. "Have you forgotten that we are of entirely different evolutions?"

Rhinegallis smiled coyly. "You forget," she said, "that to all intents and purposes I am a human being. You nor anyone else will ever get me to say or prove that I am not. That includes acting like one too."

"Let it pass," he said. "My judgment might be faulty. There are excellent doctors, however. If you claim that you intend to act as human as you can you'll have no objection to visiting a doctor."

"Not when necessary," she replied calmly.

"But remember, I told you that I would give you no information that would tend to harm."

"And I've told you that when I have evidence that tends to show my correctness I shall not ask for help—I shall take it!"

## CHAPTER VIII

### *Matter Transmission*

USING his knowledge of the alien tongue and coupling it to many of the so-called "harmless" records he had been permitted to toy with, Carroll found his work much simpler. There was that business of the circlet of wire mounted on the cylindrical podium in which vibrated a crystal.

He had a whole measure of that science, most of which, he admitted, was ridiculous, and meaningless to any Terran physicist unless he had the key to the art. A complete volume on electronic techniques would be meaningless to any man who knew nothing of electricity.

Most texts are written with considerable elision—electronics texts, for instance, show many circuits but seldom are they entirely complete. They omit the driving force—the source of energizing electricity, the filament supply, and other items which are unnecessary to the trained man.

Since many such items may be ambiguous it makes no difference whether the plate voltage is developed by batteries, rectifier-filter supplies, generators or a vibrator-pack that develops high voltage from a six-volt battery. It is sensible to omit them and merely label the "input" terminal with a symbol.

But couple a text with a complete knowledge of the language, especially a dictionary that is complete in its scientific sense, and you learn of batteries, voltage, generators and the like. You discover that an electron tube has this and that and perhaps why. Using a good sensible knowledge of physics plus ingenuity the science becomes less puzzling.

Similarly James Forrest Carroll was able to reproduce the science of the aliens.

All of this took time, of course—weeks. Weeks of testing and trying and fumbling. As Volta might be baffled by a common

transformer where, though the input is shorted together through loops of wire and the output is similarly shorted, yet there is transfer of energy, so Carroll was baffled by the strange and bizarre thing that grew in the cellar of his Wisconsin home.

It was a large circular loop of silver-plated copper tubing. It was mounted on a cylindrical slug of high-permeability alloy which was magnetized to a high charge. The crystal was common enough but its connection made little sense from the Terran point of view. The Ancients used to use crystals for jewelry and would have been bewildered at the modern idea of cutting them in slabs to make standards of frequency.

Finally he surveyed his work with a satisfied smile. He snapped it on and a shining plane of totally reflecting energy filled the circular loop of wire.

"It isn't Lewis," he said. "It's James Forrest Carroll Through The Looking Glass!"

Rhinegallis shook her head. "The proper title is 'Alice Through The Looking Glass,'" she told him.

"You have a rather extensive Terran education," he observed.

"Would any Terran be without an education?" she countered.

"Doubtless far superior to any normal person," he grunted, "thanks to that mental educating dingus of yours."

"And partly due to hard work," she said. "Give me some credit."

He smiled wanly. Then he snapped the instrument on and off and looked at the perfect plane with interest.

"Wonder if it might be possible to warp it into a perfect parabola," he said thoughtfully.

"I wouldn't know," she replied. "but it would make a fine telescope, wouldn't it?"

"Whole gear weighs about five pounds." He grinned. "The thousand-inch mirror would be a definite practicality. What we couldn't see with that!"

"Might as well go," she said humorously. "You're like the man who discovered motive power and then used it to yell over great distances with instead of going there."

"So far," he said seriously. "there's little to be gained by this gimmick. I'm like the first man on earth to own a telephone. I've no one to talk to."

"But tell me, what did he do?"

Carroll smiled in a superior fashion. "What



I'm going to do to try this out," he said. "I'm going elsewhere with a second model and establish my own line of communication.

"So far as I know the only other ones are in the hands of your people—and normal, happy, serious-minded folk seldom call their enemies on the telephone to pass the time of day. So, Rhine, if you'll stay here—"

"I've no place to go," she told him. "I'll stay. You'll not be long?"

"I've got to build it first," he said. "I've got the parts here but it's not assembled."

"But—"

"It's 'tinkertoy' fashion in a suitcase," he said. "I obviously can't carry a six-foot circle of half-inch copper tubing fastened to a podium of heavy metal through the streets of Ladysmith without trouble. I'm leaving tonight, Rhine. You wait for me here."

"I'll wait," she said with a smile.

**D**OCTOR POLLARD blinked when Miss Farragut announced James Forrest Carroll.

"By all means," he said, and then sat back to see what Carroll had to offer.

Carroll came to the point at once. "I have proof," he said.

"You have proof," smiled Pollard, "but you leave too many holes in the matrix."

"Meaning?" asked Carroll.

"From time to time," replied Pollard, "men have come forward with the idea that all Sol is being guarded or watched or kept suppressed by some alien culture. Charles Fort said 'Maybe we're Property!' and others have had the same idea.

"This alien culture always is superior of mind and body and capable of furthering any evidence to dispute its being. The discoverer is hunted down and chased but usually eludes the aliens long enough before he is caught to tell the world about it.

"Now," continued the doctor, "aside from the fact that all stories must have some sort of sensible ending your tale misses one vital point that all such tales seem to.

"That is just the simple fact that these omnipotent, omniscient and omnipresent beings who have kept the world in ignorance for twenty thousand years have not the intelligence to slay the single discoverer!"

Carroll smiled. "I was not slain because I was useful to them. I've spent weeks with them."

Carroll spent the next hour telling Dr. Pollard of his experiences among the aliens.

He omitted only the truth about Rhinegallis.

Pollard's comment in his own shorthand was, "Perfect self-justification."

"Now," said Carroll. "May I show you something that I've stolen from them?"

"Of course."

Carroll opened his suitcase and set the metal podium on the floor. He unrolled the length of silver-plated copper tubing and shaped it into a circle. He fastened the terminals to the podium with thumbscrews. Then he snapped the switch and the shimmering plane appeared.

"Wonderful," said Pollard hollowly. "But what is it?"

Carroll smiled. "You are a hard man to convince," he said. "But now that I have shown you this, I shall show you one of them!"

Carroll stepped into the shimmering plane and disappeared.

**P**OLLARD gave a cry of fright and raced around to the other side of the plane but Carroll had gone. Then he shrank from the thing; it was as though the shimmering plane of perfect mirror was beckoning to him. And for one of the few times in his life, Dr. Pollard knew and recognized a psychopathic fear of the Unknown.

Carroll, however, knew the facts. He stepped into the basement of his home with the same motion that had carried him over the podium into the mirror in Pollard's office.

"Now," he told Rhinegallis, "I'm taking Dr. Pollard a live specimen!"

He grabbed Rhinegallis by the wrist and dragged her through the mirror into Pollard's office again.

"Here," he said, "is Rhinegallis, one of the inimical aliens."

Pollard was dumbfounded.

Carroll hurled the girl at Pollard. "I want as complete a medical examination as you can give," he said. "Obviously if she and her race evolved on some distant stellar system, she can not be more than humanoid. Follow?"

Pollard nodded. He faced the girl uncertainly and said, "Do you mind?"

Rhinegallis blazed.

"Of course I mind," she snapped, eyes flashing.

Carroll seated himself indolently on Pollard's desk. "If you are really alien," he

observed ironically, "you will most heartily object!"

"I'm Terran," she insisted.

"Then why cavil at proving it?" he urged.

"I don't have to!"

"I'm afraid you do," he said. "Fact of the matter is I'm still holding a rather high position in the Lawson Laboratory. I can—and will—order Dr. Pollard to do it!"

Rhinegallis faced the doctor. "I'll not have it."

Carroll spread his hands out in a self-satisfied gesture. "Q.E.D.," he said. "Aliens will object. True Terrans have nothing to fear."

Rhinegallis turned upon him angrily. "How about you?" she snapped. "Are you willing to have yourself examined?"

"Dr. Pollard knows me," he said simply. "There is no reason for me to go through with this."

"I have friends."

"Aliens!" He turned to Pollard. "You have always disbelieved me," he said. "Had I brought you here by any other means Pollard would have believed that there was nothing to my tale and would have given you at the most a very superficial examination."

"However, after bringing you through the teleport, he is amazed enough to wonder. Pollard, I charge you. Give her as complete an examination as is within your ability and power!"

Pollard turned to Rhinegallis and asked her name.

"I am Rita Galloway," she said. "And I'm Terran!"

"Normally," he said with a half-smile, "no one is expected to go through such an outrageous thing. But do you really mind?"

Rhinegallis paused. "Not really; I have nothing to hide. But like all people I resent any invasion of my privacy. The Constitution stipulates that such shall not be done except with just cause. Not that an innocent man has anything to fear. It is just protection for the integrity of the individual. However, if you insist."

"Thank you," said Pollard. "Into this office, please."

Carroll followed.

"Not you," snapped Pollard.

"I'm watching," Carroll insisted.

"Look," said Pollard testily, "you may give orders to have things done that I do not approve of but you have no right to tell me

how to run my life. We'll have none of it!"

"But—"

"Want it done?" demanded Pollard.

"I—"

"Look, Carroll, you can't fire me. You may still hold a responsible position but it is an honorary status. Now, if you want me to go ahead, just sit quietly and wait!"

"I'll wait," said Carroll.

**T**HREE hours later, Pollard emerged from the inner office with several sheets of paper. "She is of Anglo-Russian origin and shows the racial characteristics of that mixture.

"Her blood-type is Type Three, Rh Negative, Sub-classification three-GH. Temperature, blood-pressure, and heart normal save for a slight murmur. Saliva test perfection itself. Blood count slightly low—normal enough and not near anemia.

"She is, physically, biologically, and emotionally, a specimen of excellent health, female, age twenty four years. Appendix removed five years-odd ago. Unmarried. Spent some time in the tropics but is naturally light complected."

Pollard shuffled the papers as Rhinegallis entered the room.

"In the interim," he continued, "I've had her checked on. The Bureau of Identification confirms her fingerprints and physical characteristics, Social Security Number and blood type. Photo checks despite several years interim.

"Born in Indiana, raised in Chicago on Drexel Avenue. Schooled primarily in Chicago, left college after three years. Father and mother deceased. Now," he said angrily, "is there anything more you need?"

Carroll blinked. "I should have guessed," he replied very slowly.

"Guessed? Guessed what?"

Carroll nodded slowly. "Doctor, forgetting the present situation, what is your opinion on the evolution of an extra-solar race?"

"I'll try to forget the present idea," replied the doctor, "and tell you that so far as I can judge, it would be utterly impossible for any race not our own to have more than a very few superficial items of resemblance to the human. More than likely they would evolve in an entirely different shape, though very necessarily functional."

Carroll nodded. "How about brain surgery?"

"What about it?"

Carroll shunned the doctor at that point. He faced Rhinegallis with a bitter smile. "So you have Terran characteristics. And your offer of affection might have been honest—despite the alien brain inside your skull!"

Rhinegallis gasped. "You accuse me of—" "Well, there must be some logic in it!"

## CHAPTER IX

### *Court Is Dismissed*

**I**NSISTENTLY the communicator on Pollard's desk buzzed and Miss Farragut called him. The doctor excused himself and left them alone.

"There must be proof," insisted Carroll.

"There has been plenty of it," she told him.

"There's one thing that your alien brain in a human body will not do," he said. "The rest can be managed. You can falsify records—perhaps you were a natural child of Terran parents—Terran parents with alien brains—as yours is now. I don't know but I'll find out."

"How?"

"Pollard's psychiatric notes," he said explosively. He headed for the examination room and looked around. There, behind the door, was a pile of papers on a small table. To get at them Carroll nudged the door shut. It went closed with a faint thud.

Almost instantly afterwards there came the sounds of many feet in the other room.

Rhinegallis screamed something out of fright and peril. There were the sounds of a scuffle, after which came. . . . Silence!

Carroll hurled the door open and raced across Pollard's office toward the teleport. As he reached there he saw the last traces of Rhinegallis's feet being dragged over the bottom of the wire circle into the mirror. With a cry of anger, Carroll hurled himself into the teleport just as the office door burst open to admit Pollard and Majors.

Carroll's return passage through the teleport was rough. He bumped someone and his force sent them sprawling. Then he was through and facing Kingallis, who was still reeling backwards.

Carroll plunged forward and caught Kingallis by the throat. The alien twisted out of Carroll's grasp and fought back. Carroll hit him hard and followed it with an insane

rush that carried them to the far end of the cellar, where Kingallis tripped on a small box and went down with Carroll on top. Carroll rapped the alien's head against the concrete floor and stunned him.

Kingallis returned almost instantly.

Carroll looked down in his face and snarled, "Now—why?"

"Why?" asked the alien defiantly.

"Yes—why? Why is all this going on?"

"The universe is not big enough to hold us both," snapped Kingallis.

"Then it is true. You and your people have been suppressing our research because you fear that we will be able to beat you. And we will, Kingallis. We will!"

"You won't live long enough," snarled the alien.

Carroll's mind worked rapidly. If nothing else, he had now discovered the truth of why. The alien culture wanted universal conquest. To gain it, they were suppressing all research on the Lawson Radiation, which was their main hope for victory. Instead of fighting to suppress it, they had found it much easier to weasel their way in and fake a report here and line there with a mere handful of men. No science could advance when true discoveries were reported as failures and false data were supplied to send the investigators along blind trails.

But now there was real danger. Since Terra was cognizant of the peril Terra would be destroyed. Destroyed or conquered early—the aliens not waiting for the normal development of their plans of expansion.

Carroll looked around for something to tie Kingallis with. And he saw—

Rhinegallis, supine upon the floor, a wide thick strap constricting her ribs. Her eyes were closed. The pulse in her shapely throat was fluttering weakly.

"You swine!" said Carroll.

Kingallis threw him off, leaped to his feet and raced for the teleport disc. He plunged through as Carroll dropped to the floor on one knee and started to fumble at the heavy strap.

**H**E TORE his fingers and he cursed, and he looked wildly for something to cut the thing with. His eyes caught the tinsnips on the bench and he arose to get them as Pollard came through the teleport.

Back in Pollard's office the psychologist looked at the perfection of the silvery plane and shuddered mentally. Then he said, "I

don't know what's up. but I'm going—through!"

Majors nodded. He had not seen Carroll using the thing at all. His mind was baffled but not psychopathically afraid of any gadget that made men disappear so quickly.

Pollard stepped gingerly into the circle and came through. It was like walking through a ring. There was neither pain nor strain nor feeling. He might have been stepping over a slight, wide sill. Then he was looking down at Carroll, who was fumbling at the strap. Carroll cut it through as Pollard knelt beside the girl.

Then as Pollard made an instant check of the girl's heart and sighed with relief, Carroll rose and turned on the doctor.

"Now," he said, "are you satisfied?"

"Satisfied?" echoed the doctor.

"They almost got her!" snarled Carroll.

"Oh?"

"The teleport is theirs. They have many of them. They were worried about discovery, so they came and—"

"They did?" asked the doctor sarcastically. He turned to Majors. "I was wrong," he said.

"Wrong?"

Pollard nodded sadly. "I believed that Carroll would not direct his hate towards anything living. I did not anticipate his fastening the embodiment of his hallucination upon a human being!"

Carroll turned to Pollard with a glassy stare. "Just what do you mean?" he asked in a flat voice.

"That was an attempt at sheer wanton murder!" replied the doctor.

Majors looked down at the girl and his face went black with anger.

"Why," he said, "that's Rita Galloway!"

Pollard looked at Majors. "Who?"

"Rita Galloway. The head librarian over at the Scientific Section of the Foundation Library."

"She is Rhinegallis of the aliens," said Carroll quickly.

Pollard shook his head. Majors growled. He started to speak and then closed his lips tightly.

"Go ahead," said Pollard.

"All right," snarled Majors. "It was my fault!"

"Your fault?" exploded Pollard.

"Yes. The day after Carroll took that delivery job from little Sally, he spent the evening in the Library looking up some rather complex stuff. Miss Galloway was called

upon quite often, so she said, and came to me because she knew we were interested in Carroll.

"Shut up, Carroll, and sit down before I kill you! I told her the entire score and she said that if Carroll was truly as interested as he seemed she was going to ask for a leave of absence and see that he was helped. He seemed to be interested in her."

"Does helping him include running off to Wisconsin with him?" asked Pollard.

"They had words with her brother Kingston," said Majors. "Seems that her brother was concerned about her reputation, and said as much. Carroll made some remark about there being little in common between them, that no human being would find her interesting from a physical standpoint, just as she would find any normal relationship with any human being completely devoid of satisfaction.

"Kingston Galloway instantly took this to be a slur upon his sister's character and he jumped Carroll—also making it quite plain that he would stand for no more foolishness. Carroll clipped him hard and left, taking Rita with him. I got that from Kingston, who was out loaded for murder."

Pollard nodded. "A complex case of misdirected opinions," he said with a grim smile. "Carroll thoroughly believes that she is alien and as such incapable of forming any true association with a human. He says so and her brother misconstrues his belief into an insult to her character."

Majors turned on Carroll. "This is a matter for the police," he snapped. "Come along!"

Carroll paused, looking down at the girl. Pollard scooped her up across his arms and went through the teleport. By the time that Carroll and Majors followed Doctor Pollard was working over the girl in his laboratory.

Carroll shrugged. "If he fails," he said, indicating Pollard, "we might be able to hold an autopsy."

Majors turned away, sick at heart.

**A**TTORNEY BARNETT rose impressively.

"Your Honor, and Gentlemen of the Court," he said. "We do not deny the allegation. We wish to point out, however, that despite my client's state of mind he has and will be of continued value to civilization.

"Incarceration in a penitentiary will not permit him to continue his research. He



should be permitted this outlet. Therefore, for my first witness I call Doctor Harold Pollard."

Pollard was put through the legal ritual and took the stand.

"Pollard, what happened to James Forrest Carroll?"

Pollard cleared his throat. "James Forrest Carroll followed the pattern of several of the top physicists working on the Lawson Radiation," he said. "May I express a pertinent opinion?"

"Objection!" shouted prosecution.

Judge Hawley frowned. "Is the opinion based on the crime?"

"No, your honor. It is pertinent to all such cases."

"Objection overruled."

"May I take exception?" asked Frank Barre, the State's Attorney.

"Let us examine the personal opinion first," replied the judge.

Pollard nodded. "It has been the opinion of the men at the Lawson Laboratory that all of these men have discovered something that has driven them into amnesia. Amnesia, you understand, is the mind's withdrawal from a distasteful reality.

"Of all of them, however, Carroll is the only one who has shown a sign of recovery from a state of complete amnesia pertaining to his work. Carroll returned with an hallucination of a strange alien culture at work to suppress any research."

"I want to establish Doctor Pollard's reputation and ability as a physician, surgeon, and practising psychiatrist," said Barnett.

Frank Barre stood up. "Waived," he said. "Prosecution agrees that Doctor Pollard's training and position are impeccable."

"Thank you," replied Barnett. "Go on,

Doctor Pollard."

"In usual cases of paranoia the subject develops a persecution complex. Usually it is directed against his fellow man. In Carroll's case this was fastened upon the mythical race on another star.

"Carroll believes the Lawson Radiation to be the wasted energy from a space drive capable of interstellar travel. This alien race is supposed to be suppressing the research for a reason not quite clear, though Carroll believes—"

"Tell us what you know, Doctor Pollard."

"As with usual cases Carroll went to great pains to produce certified evidence. While preparing the so-called facts, Carroll is in a state of self-hypnosis—hallucination—in which he was actually living with the aliens and stealing their stuff. When he brings his evidence forward he attributes it to their culture rather than the product of his own brilliant mind."

"And what do you recommend?" asked Barnett.

"Since the Lawson Radiation was the thing that caused his downfall in the first place whatever he found was important. We may have been lax in our efforts to bring Carroll 'back'. Yet, we feel that any measure that will help us to know what it is—is permissible.

"Even attempts at murder?"

Pollard shuddered. "Of course not," he said. "I should have said any legal measure."

"Thank you," replied Barnett. "I'll now call James Forrest Carroll. I want the Court to hear his own story."

"Carroll," said Barnett, once the man was legally installed on the witness stand, "did you try to kill Rita Galloway?"

"No!"

[Turn page]

"Did you try to kill a woman you knew as Rhinegallis?"

"No!"

"Then who did try to kill her?"

"Her brother, Kingallis!"

"Do you see this man in the courtroom now?"

"Yes," said Carroll pointing to a man at the witnesses's table. "That is Kingallis."

"We will show later that the witness identified has been known all of his life as Kingston Galloway, and is the brother of the woman." Then Barnett faced Carroll again. "Do you mind talking about this?"

**C**ARROLL shook his head as he said, "Not at all. I have been most deeply frustrated. Time after time I have produced evidence to show the truth of the matter. I have gained no one who will believe me."

"You say that Kingallis tried to kill his sister. Why?"

"Because she betrayed him by helping me."

"Your honor, you will recognize the importance of this statement. It—like so many others—is a half truth. It is true and yet the implication is not the same. The fact is, your honor, that Carroll actually has reason to believe that Kingallis came through the teleport to take revenge. This is part of the hallucination."

He turned again to Carroll. "You claim you were held against your will in a build-  
ing in Virginia?"

"I was."

"Then tell me how it was that you were seen performing your job during the time you claim to have been prisoner—and disappeared at the time you went to Wisconsin with Rita Galloway?"

Carroll smiled. "By the same explanation as the twin Sallys. One, you remember, went into the black car so that the men could read the day's reports and fix those that were informative. The other went into the drug-store for a bite to eat in order to fill in the interim. There was a man made up to resemble me."

"You see, your honor, Carroll believes his hallucination implicitly."

"Obviously."

Barnett faced Carroll. "Prosecution claims that you, yourself, attacked the girl in a state of anger because she proved your beliefs wrong—and in hallucinatory hope that a complete autopsy would prove you correct."

"This is untrue."

"Your inventions—"

"They are not my inventions. They are thefted from the alien library."

"Carroll, you have a brilliant mind."

"I was mentally strong enough to defy their thought machines," replied Carroll.

"And you have an extensive education in physics and science?"

"I have."

"Now tell me, are any of these inventions beyond understanding?"

"Naturally not. They are based upon physical laws that are at present unknown on Terra."

"As—say—electricity was unknown in the days of Galileo?"

"About like that."

"Then, Carroll, it might be possible that you yourself made these discoveries?"

"I might have," admitted Carroll. "But—"

"Under a hallucination? To prove to your own mind that you were stealing something of scientific excellence?"

"There is the matter of the language."

"Irrelevant. It is a tongue no one here understands."

"Kingallis! *Vol thes nil kantil res vi pon tere. . .*"

**K**INGSTON GALLOWAY blinked as Carroll tongued his syllables, then began to laugh.

"You see," said Barnett, "anyone can mouth meaningless words and call them a language. You can, if you are brilliant, even assign meanings to them. Esperanto, among others, is a manufactured language."

"Yet I claim it true."

"What about your own future?"

"I care nothing for myself, it is only the future of Sol that concerns me."

"Your honor," said Barnett, "There are two things I want to say before I close. One is that James Forrest Carroll is not sane. Therefore he should be committed to an institution. The other is that James Forrest Carroll, for all of his insanity, is still a brilliant physicist."

"He knows something about the Lawson Radiation that men have gone mad for previously, that men have sought for thirty years, that time and money has been spent for. Therefore, in this institution, James Forrest Carroll should be permitted to experiment at his own will."

"For if nothing else he will produce many

other marvelous things in an effort to prove that the science of the aliens is far greater than ours."

The judge asked Carroll, "You have a reason for believing all this?"

"I know why. The alien culture wants to conquer the universe. Because we are very close to them in scientific achievement they have cause to fear us.

"The Lawson Radiation is the spilled energy from their interstellar ships and possession of this secret will permit Terra—or any other system—to fight them on their own terms, even to beat them back to their own system. Therefore they are suppressing all research by clever misdirection."

"I see. You seem to have an answer to every angle," mused the judge.

"The trouble is," said Carroll, "that people insist upon judging me in accordance with their own views—which means that they have an answer to my every objection."

"In other words," smiled the judge, "the world is wrong and you are right?"

"Precisely."

"You know what is said about such people?"

Carroll smiled. "They said the same thing about Galileo, Columbus, the Wright brothers, Bell, Edison and Marconi," he said.

"It is often hard to tell," said the judge. "However, there are some good ways."

Carroll faced the judge. "Sentence me," he said in a surly tone. "For only by silencing me can you stop me from seeking you out."

"Me?" asked the judge in surprise.

"Either you are Terran and must therefore do everything to help me unravel this mad pattern or you are really an alien who has succeeded in penetrating to a high place in our civilization—and are therefore interested in seeing that my knowledge of you is not given any recognition."

"But why—"

"It has been said that when the superman arrives, he will be well concealed and will occupy a high place in the world without anybody knowing about it. You may or may not be. Yet by your decision you will prove it to me!"

"I see no reason to defend my opinion against your attack," replied the judge. "However, in view of the circumstances, I hereby direct the jury to return a verdict of 'guilty of criminal assault while in an insane condition' and a sentence of committal to an institution until such a time as you are pro-

nounced sane and rational. Court is dismissed!"

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## CHAPTER X

### *Flight from Asylum*

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**J**AMES FORREST CARROLL was very careful in the days that followed. With meticulous care he watched those about him in the asylum, always wary of showing either too much interest or too much neglect. The other inmates did not bother him particularly nor did they irritate him. Not even the fact that he was committed to an insane asylum caused him to lose heart.

Carroll cared little for his immediate surroundings for he knew that once he made his point and carried it to the awakened Solar System, not only would all of the past suspicion be forgotten but he would receive an even greater reward for having suffered to carry on.

Then, as the flush of newness wore away, the guards and attendants let him alone more. All of them were trained in handling the insane and they treated each new inmate with considerable suspicion until the exact nature of the patient's instability was known.

Carroll's main and only argumentative period came when he was not permitted to work as he pleased. And so long as no one mentioned the word 'alien' in any way he was silent—lost in his thoughts and his plans.

As soon as they furnished him with working space, Carroll knew that his incarceration was a godsend. For—barring the chance that one of the guards might be alien—if he could not get out they could not get in. This was security.

The one off-chance worried Carroll. It would be hard enough to segregate the few humanoid aliens from the mass of humanity. But with the aliens occupying human bodies it was impossible. Just how it was done Carroll could not say but he considered the problem and arrived at a solution from sheer deductive reasoning.

It was pathologically impossible to consider surgery—the gross transplantation of a brain. For one thing—among many—there is the matter of blood supply. Incorrect blood matching causes death in a transfusion. This is not because of the mismatch in the blood stream per se, it is because the metabolism

of the entire human body is not matched to the different type of blood.

To transplant a brain would require that something be done about the blood supply—if changed to match the brain the body would die, if not the brain would die. And there was no remote possibility that any alien brain would match human blood.

It is even difficult in many cases to graft skin from one part of a human's body to another, let alone grafting skin from one to another body—and the possibility of cross-grafting across the line of demarcation between Terran species was unthinkable.

Just with common skin.

The brain?

Impossible!

There was, however, the whole matrix of mental gadgets, hypnotic beams, educators and other gewgaws of the alien culture. The old thought patterns could easily be erased and replaced by a new system. That would—despite theological arguments to the contrary—result in a new person. For all beings are what their experiences and their training makes them.

A sentience produced in a humanoid body on a remote planet and mentally hurled into a human brain will change the human to an alien in thought and deed—but capable of living as a human! There is nothing in thought that is inimical as there would be in the sheer complexity of biochemistry.

Thoughts, even nasty vagrant thoughts, do not kill. But how large is the lethal dose of polio virus or potassium cyanide or unmatched blood?

**A**N AUTOPSY they might some day perform, but unless they could read her thoughts, they would find nothing! How then to identify the alien?

*Nay! How then to prove that there were aliens!*

There were both excitement and suspicion when Carroll built the teleport in his asylum laboratory. It was too much like incarcerating a man who had the ability to walk out of the place without half-trying. In fact, as one of the guards put it, that's exactly what it was.

It was Majors who smiled and shook his head. He pointed out that so far there were but two of them, one in the office of the psychologist Pollard and the other in the Wisconsin home of the inmate himself. Both were turned off.

Majors, not really understanding the principle of the things, had them both placed in a sealed room. Whether Carroll could turn on an inert machine from a remote place he did not know and he was taking no chances.

But Carroll's experiments with his new teleport seemed innocuous enough. For several days he fiddled with the tuning and synchronizing controls that were used to tune one teleport to the other.

He kept constantly 'ON' the switch that remotely operated any distant teleport that his own happened to be tuned to but his work did very little good. He found the two that were sealed in the tiny room and knew them for what they were. Carroll was seeking the teleports of the aliens.

For days he searched the—subspace?—for the alien teleports and found none. Then in a desperate measure, Carroll finally went through to the room in the Lawson Laboratory and, using some of his store of tools, broke the sealed door.

Brashly Carroll stole an automobile. Equally rash, he drove at breakneck speed along the roads that led him up into the Virginia mountains along the back-path that he had traversed only once before in a conscious condition, and then from the opposite direction with Rhinegallis pointing out the way.

It took many hours before he came to the little side-road that led like a mountain goat's retreat up into the top hills. It changed from a side-road to a mere trail and then branched from a mere trail to an unkempt, rutted footpatch that jounced the automobile terribly.

Miles along this rocky path, Carroll turned into a clearing—a well-remembered clearing, and he looked across it—in surprise. The building itself was gone! No wonder he could find no teleports!

And the words of Kingallis returned to him. "You won't live long enough!" the alien had said. "The universe isn't big enough for both of us!"

The rats had deserted the doomed ship!

It was so pat—so perfect! Now they would say that there never had been any aliens. At every turn Carroll was blocked and stopped and frustrated. How long the aliens had been guarding Terra he did not know. Perhaps about the time that the Lawson Radiation was discovered, or perhaps even before.



No matter how good they were at intercepting things, the aliens could not keep some things from leaking out. They might have been here for centuries awaiting the man Lawson who was the discoverer.

They might have been covering information that would have led to the discovery until they could no longer stop it. At that point in the rise of any culture the discovery of such a factor would be almost automatic. . . .

Taking any science as a parallel, civilization makes its discoveries as it is ready for them. The discovery of radio would have been impossible before the knowledge of electricity. Nuclear physics would have been impossible without a working knowledge of simple chemistry.

Each science stood upon the shoulders of the other. Electronics aided astronomy, mechanics aided electronics and chemistry aided mechanics. Physics gave men more information about chemistry and chemistry was a foundation stone for electronics.

**H**OW long that had been here Carroll did not care. The pertinent thing at present was the simple fact that *now they were gone!*

Gone because they dared not stay!

Carroll cursed. It was his fault. What-ever was being done to eliminate Terra as a threat to the aliens' ideas of aggrandizement was being done because James Forrest Carroll had been instrumental in uncovering their schemes. Had he remained in ignorance there would have been no reason for their latest plan—conquest for aggrandizement does not include extermination.

To exterminate an enemy spells economic failure. There is little glory in being the Lord of All when *All* consists of burned planets, dead cultures and the hollow grinning skulls of a billion billion intelligences.

Homage comes not from a skull.

There, in the moonlight of the clearing where once stood a large alien edifice, Carroll took from the back seat of his stolen car the knocked-down teleport and set it up alongside the road. He stepped into it and emerged in his asylum laboratory.

He ignored the fact that both car and teleport were stolen and abandoned. The only thing of importance now was the safety—the personal safety—of all Terrans, whether they believed or not. That he alone had good reason to believe in the threat was un-

important. There have been many cases in the world of history when one man alone stood against the world and was right.

Let them scoff.

Yet Carroll felt the full impact of helpless frustration. He was pitted against an alien culture capable of scientific marvels such as the teleport and interstellar travel and other things. They were capable of destroying the solar system while the only man who stood against them was incapable even of discovering how they intended to do it.

He threw himself into his work and the days sped past as he built and experimented and planned—and all too occasionally failed. When his cohorts came to him with the announcement that the first sixty-foot paraboloid of revolution was to be initiated that day at the Lunar Observatory Carroll merely nodded and returned to his work.

He cared not at all that the new observatory was to be called the Carroll Observatory in honor of the man who made possible the perfect reflector. At that time, Carroll was busy with his invisible fields of force and spacial planes of stress and did not want to be bothered with trivia—especially trivia that he had really had no hand in inventing.

A lot of good the Carroll Observatory would be to mankind if the Solar System were destroyed!

**M**AJORS entered Dr. Pollard's office with a large glossy photograph in one hand. Pollard looked up amusedly as Majors said, "I'm getting psycho, I guess."

"Yes? And what makes you think so?"

Majors laughed. "Because every time I get a problem I seem to come to you instead of going where it can be answered by theoreticians and physicists."

Pollard smiled. "I think you come here because this is one place where you can hold your own with another man who can hold his own with you," he observed.

"Well," admitted Majors, "you don't understand theoretical physics as well as I do and psychology is over my head. Anyway, what do you make of this?"

The photograph was of a patch of sky. Pollard shook his head.

"Is this a test question?" he asked. "Remember, I'm the psychiatrist and I'm supposed to hand the patient strange items and ask them what they see in them."

Majors laughed. "This is a section of Boötes."

"Bootees," murmured Pollard irrelevantly, "are knitted gadgets you put on babies' feet."

"All right, I'll leave quietly," chuckled Majors. "Seriously, though, look at this." He pointed out a tiny smudge among the myriad of stars.

"Well?" asked the doctor.

"It shouldn't be."

"Maybe a flaw?"

"Nope," objected Majors. "It persists through twenty-seven photographs made one minute apart—each exposed for one minute."

"Um. What is it?"

"Don't know," replied Majors. "But it is darned interesting."

"Bootes is the region from whence comes the Lawson Radiation, isn't it?"

Majors nodded. "That's why they sent it to me. It was taken by the Carroll Telescope on Luna, a sort of tribute to Carroll that the first photographs and work done by his invention be directed at that portion of the sky he worked so long on—to his own downfall."

"Tell me, Majors, do you often get these kind of smudges?"

"Not this kind but there have been other kinds."

Dr. Pollard looked at the smudge. "Let's take this to Carroll," he suggested. "Maybe it might mean something to that hidden portion of his mind that refuses to admit what it knows about the Lawson Radiation."

"Through the teleport?"

"Why not? If it's not available at the other end, we'll just meet a solid mirror and can't step through. That worried me for a long time, that idea of not having a place to go to. Just step out into—heaven knows what—because the other end wasn't connected. Come on!"

The teleport in Carroll's asylum laboratory gave the physicist warning that they were coming through. He turned as they entered with an annoyed smile on his face. Before him was a long paper record of Lawson Radiation recordings that Carroll was studying through a magnifier.

Majors handed Carroll the photo, saying, "What do you make of this?"

"It's a bad blur—like a misfocused image," replied Carroll.

"Yes—but why?"

"You've heard of the Einstein Lens?"

"Vaguely, but thought it was just a dream—a probability that never happened."

Pollard shook his head. "I don't know

about it at all," he admitted.

Carroll smiled tolerantly. "Light has energy and energy has mass," he said. "Ergo light has mass. Masses attract one another according to the Newtonian Law of Gravitation. Ergo light is bent by passing close to a mass."

"I see," said Pollard leaping to the right conclusion. "Then light radiated from a very distant galaxy may pass close enough to a dark mass—with Terra, the mass and the galaxy in line—to have the distant galaxy focus itself here?"

"Yes," replied Carroll. "The mass acts as a biconvex lens because it bends all tangential light toward the center as the beam passes."

"But the Einstein Lens effect doesn't make smudges like this," objected Majors.

Pollard whistled. "You mean to say that the Einstein Lens is known to be a fact?"

"Right. Several cases are known and accepted as such!"

"Well!"

CARROLL looked up from the smudge. "A negative lens," he said, "would cause diffusion like this."

Majors blinked. "That would mean—oh, no!"

"Negative matter," said Carroll promptly.

"Um. You postulate a negative mass in line with the light from a star?"

Carroll nodded.

Majors smiled and took out a roll of thirty-five millimeter film. He handed it to Carroll.

"I took the liberty of making smaller prints," he said. "Those are the other thirty-five pix made near that area. You'll see the initiation of the smudge on the second, and the completion of it on the twenty-eighth. The others are just spares."

Carroll looked at the smudges, one after the other.

"You'll note that the thirteenth, the twentieth, and the twenty-fifth have rather larger areas," said Majors. "Also, on the thirty-first—after the body presumably has passed out of line—there is one more faint flare-point. That was minutes after the thing passed out of line."

Carroll read the pictures carefully and then without a word he turned to the desk. He picked up the tape of Lawson Radiation recordings and handed it to Majors.

"Here," he said, "is correlation between

astronomical fact and the Lawson Radiation."

There were four definite pips on the line. Four spikes that reached up, with each spike labelled as to the time of reception. Though the intrinsic time did not match by hours the spacing between the pips and the flared photographs was perfect.

"Then what?" asked Majors, and Pollard held his breath.

"A mass of negative matter passing through space," said Carroll, "would naturally be struck occasionally by meteors or small celestial bodies."

"But if negative matter is repulsive instead of attractive?" objected Majors.

"Then," said Carroll simply, "the only masses that can strike the repulsive celestial negative-mass are those other masses that possess the velocity that corresponds to the velocity of escape in normal mass!"

Majors looked thoughtful.

"I get it," said Majors. "The velocity of escape is that velocity attained by any mass in falling to the earth from an infinite distance. Converted, any mass given that velocity upon the instant of departure need have no more acceleration applied in order that the mass be driven to an infinite distance against gravity. Follow?"

"Uh-huh," said Pollard.

"In the case of a repulsive mass—negative mass—in order for any other object to strike it it must possess enough energy to overcome the repulsion. This would be the inverted equivalent of the velocity of escape!"

"Negative mass and positive mass would cancel one another?"

Carroll nodded. "Producing the Lawson Radiation!"

"Then all these years we have been following a bit of negative mass getting hit by normal meteors."

Carroll shook his head. "You check the orbit of that mass," he said, "and you'll find out that it is due to strike Sol!"

"You know?"

"I suspect," said Carroll. "The aliens must destroy us lest we destroy them. This is their way. We must stop that mass!"

"Look," said Majors. "Let's find out the course of that celestial object first!"

"It will be," said Carroll.

"Carroll," objected Majors, "why must you insist upon blaming the aliens for something that is definitely a matter of celestial chance?"

"Because it is not celestial chance," snapped Carroll. "And I'll yet prove it!"

## CHAPTER XI

### *Prophets of Doom*

**R**ITA GALLOWAY came at Pollard's request, and the doctor told her about the new developments. She listened with interest, finally nodded with comprehension.

"So that," she said, "is what drove him mad?"

Pollard smiled. "Obvious, isn't it?"

"Not too obvious to one who is not completely informed as to the workings of the mind."

Pollard smiled again. "Sorry," he said. "I thought it was simple. It may be me, but I will try to show you that the mechanics of the mind are as logical in madness as in sanity—or in plain cause-and-effect mechanical systems.

"Somehow during his researches in the Lawson Radiation he stumbled upon the truth. He studied it, not daring to believe at first the possibility of a negative mass. Yet the facts were there and in some manner Carroll managed to develop a system of physical mathematics that tended to prove his point.

"I have no doubt, Rita, that if we find any tampering with the Lawson Laboratory records, they will have been tampered with by Carroll himself, who refused to let this bizarre affair be known until he was certain.

"You see, Carroll knew the storm of protest that would arise if any physicist tried to promulgate such a theory without almost certain proof. So he concealed it. But he studied it thoroughly. And in his studies he discovered that this negative mass was heading for Terra."

Majors cleared his throat. "Tell me, Doctor Pollard, how you make these vast assumptions? Aren't you like the classical definition of a physicist? You know, a man of limited reason who can leap from an unfounded theory to a foregone conclusion?"

Pollard laughed. "Rita was not there. But you were. Did you note how quickly Carroll picked out the point? One look at the photographs, one look at the Lawson Record and one statement of fact—all tied in to absolute

perfection. Carroll knew that his theory was terribly thin—also he knew the futility of trying to stop a cosmic body approaching Terra. The combination drove him into hallucination.”

“Amnesia?”

“Yes. It all ties in. Every bit.”

“Go ahead and tie, Doc.”

Pollard nodded. “His is a classic form of schizophrenia. For his years of study he is presented with the knowledge of certain destruction. This is terrible to face *per se*. It is terrible to think of one’s self telling the world that he has just discovered the first true and provable link in the ending of the Solar System. It is like uttering the clarion of doom.

“Now remember,” said Pollard, pointing off the pertinent spots on his fingers, “that Carroll probably tampered with the records or at least did not list the truth. Tampered with or falsified. That’s point number one. Secondly, the true schizophrenic paranoid cannot rail against a mechanistic fate.

“He must find some sentience to fight, some evil mind to combat. For the paranoid feels that he can win in the end, which of course would be impossible against a case of mechanistic doom. Therefore Carroll needed some sentient manifestation of this doom, something that he could strike at, fight against. Therefore he has accused an ‘alien culture’ of tampering with the records to prevent us from knowing the truth.

“I tried to tell him of many others who claimed to have discovered a ‘master-mind’ that treated humans as we treat goldfish and guinea pigs. I tried to ask him why, if these master minds are so omnipotent that they can spend fifty thousand years watching an experiment in humanity, they were not smart enough to do away with the one man in that time that might cause them trouble. That’s the link that stumbles most Prophets of Doom.”

**H**E PAUSED.

“But James Forrest Carroll is completely self-justified. His explanation was simple enough to sound right. He merely claimed that, since his mind was sufficiently strong to best their ‘hypnosis beams’, they kept him alive to study him. You see? He is so mighty that they do not dare. True paranoia.

“Now, point three. Carroll is a brilliant man with a vast imagination. Yet his train-

ing as a physicist kept him from trying many wild schemes or things that might be against the teachings of modern physics. Therefore he attributes the many superscientific marvels to the techniques of the ‘aliens’. In truth no Terran physicist would believe them possible. The conscious mind rejects the idea of the teleport for instance.

“But there was terrible compulsion. He must avert the destruction of Sol. This he can do, he believes, by learning much of the alien science and turning their own trick against them. Things that no sensible physicist would even consider must be given a try in this period of emergency. Therefore he went into hallucination in order to invent this ‘science’—because his conscious mind tells him that it is impossible.”

“Aren’t you missing the motivation?” asked Majors.

“Not at all, I just stated it. His subconscious mind knew that the only way to stop this catastrophe was to try the products of an untrammelled imagination.”

“Rather complex, don’t you think?”

“Not to the mind. It is all self-justification. Remember the attack on Rita? Her ribs constricted by a heavy leather strap? A normal man with the impulse to kill doesn’t go to such bizarre lengths. A shot, a stab, a bit of poison.

“Also,” added the psychologist, “it is commentary on the mind of the paranoid that cruel and unusual forms of torture and death are uppermost. Since in Carroll’s deluded mind this attack was to be used as proof of the alien culture, the crime must be made to look alien and unearthly.

“Well,” said Pollard with a deep sigh, “We have smoked him out at last. We have uncovered the hidden truth in Carroll’s mind. Rita, we need you again.”

“I know,” she said quietly.

“You forgive him?”

“Of course,” she said. “And if I did not I should cover it. After all, this is no longer a matter of men and women and minor hates. This is Man against the Universe. And if I must sacrifice myself to see that Sol remains I shall, and gladly.”

“How about your brother?”

“He hates Carroll. Terribly.”

Majors grunted. “We’ll take care of him. Maybe he’s the real madman in this scramble.”

“At any rate,” said Pollard, “we all have something tangible to fight, now. Go to him,

Rita. You have his confidence, even though he believes you to be one of the 'aliens'."

"Go to him?" she asked with a smile, "I'll not have to. Carroll will come to me."

"You seem certain."

"You may scoff at feminine intuition," she said with a laugh, "but in some cases it works. You see, no matter what Carroll thinks of me, he is aware of the fact that I am a woman. Meanwhile I'll merely borrow that portable teleport and wait."

**T**HE room was dark save for a slight streak of yellow moonlight. As the night progressed, the streak of moonlight passed across the room, illuminating the sleeping girl, the dresser, the desk, the teleport, the blank wall.

And in the early morning hours the perfect plane of the teleport flashed briefly to admit James Forrest Carroll. Blinking, he looked around the darkened room until his eyes adapted themselves. Then he made his way to the side of the bed. The motion of the bed as he sat upon the edge awakened the girl, who sat up quietly enough to allay Carroll's fears that she would shriek.

"Rhine," he said softly.

"Yes," she replied.

"I need your help."

"I know. I'll give it."

"You will?" was his reply. The tone of his voice was undefinable. There was mingled wonder, and scorn, and suspicion.

"I will."

He laughed sardonically. "Now you'll help," he said. "Why didn't you help me when they accused me of trying to murder you?"

She shook her head sadly, and reached for his hand. He tried to withdraw but she held it fast.

"James," she said with a note of pleading in her voice, "Please believe me. I wanted to. But you see, my testimony was worthless. All I remember was a blow on the back of the head. Blinding lights, roaring sound and waves of pain that came and went in crescendo and diminuendo until I came to in Doctor Pollard's surgery."

"They blamed me."

"I know," she said.

"Perhaps you blamed me too." His hand tightened on hers as though he were silently praying for her denial.

Rhine lifted her other hand and put its palm against his cheek. "James," she said

softly, "I did not see nor did I hear, but I know that whoever it was it was not the man who is here tonight."

He smiled quietly. "I keep forgetting the quality of mind that I am up against," he said.

"Mind?"

"Mind—or mentality," he said. "You see, Rhine, parallel evolution is impossible. So is the idea of brain transplantation. Hence the only way in which your race can invade ours is by mental replacement, invasion, control—or by wiping the other brain clean and clear and taking over. This leaves you an alien mind in a human body."

She laughed faintly. "I've often told you that you nor anybody else would ever get evidence to prove that I am not a very human person," she said softly. Her hand upon his cheek moved slightly and then slid around to the back of his head. She drew it forward and met his lips with hers.

For but a brief instant he resisted. Then he yielded as her lips parted beneath his invitingly. His arms went around her and he cradled her close to him and he knew with sweet completeness that, alien mind or not, there was no question nor doubt about her responding to him.

Minutes later she leaned back in his arms and chuckled at him. He grunted a wordless demand to explain.

"Why," she said, still chuckling, "you'd have a terrible time explaining to any one of a hundred billion human beings that I am utterly alien and that this friendship of ours is strictly platonic and developed out of a desire for mutual desire for protection against our respective races."

Carroll looked around. The streak of moonlight had moved. It was now casting a pale golden light on an easy chair. Draped across the easy chair back was a pale green negligee almost as intangible and diaphanous as the moonlight. Carroll blushed and remembered where he was—and also why he had come.

"Rhine," he said. "You'll come with me?"

"Of course," she told him.

His suspicion returned vaguely. "Tell me," he pleaded, "Is it because you know that there is no return for you or—"

"Sol is menaced," she replied simply. "Sol must be saved and you are the only man in the world that can do it. I want Sol saved."

"But why?" he demanded.

"Because," she replied.



Carroll shook his head. Question and answer were pat. Human, alien, animal, vegetable or mineral—the same question and the same answer!

Rhine chuckled again. "Beat it," she said. "But leave the teleport running. I'll be through as soon as I'm dressed."

He nodded, arose and went through the teleport. Rhinegallis followed him in about ten minutes and once more they were in the laboratory of Carroll's Wisconsin home.

## CHAPTER XII

### *Negative Matter*

**F**OR an instant their gaze held.

"Now," asked Carroll, "what is the Lawson Radiation?"

"Should I know?" she queried by way of reply.

"I think so."

"Why?"

"As an emissary, you should."

She laughed. "I'm still giving no evidence, James. I cannot. I am human."

He looked down at her, and the recollection of her kiss was strong. "There are times," he said ruminatively, "when you most certainly are!"

She let her eyes drop. Then she raised them again. "I know very little about it," she told him. "And practically nothing but what you've told me. A lot about alien mathematics and sciences. I think that somewhere in the maze of data there will be the answer you seek."

"And that," he replied, "may be either a chance statement based upon good prediction or the remark of an alien who knows where the body is hidden but will say nothing more than 'Getting warmer'."

"So what do we do?" she asked. "Shall we let this simmer down to the old unanswerable argument as to my mental status or shall we forget that and take to real investigation?"

"Investigation," he said. "You're a darned good librarian, Rhine. You tabulate and I'll try to juggle it out."

Rhine went to the draftman's table and sat down.

"I've maintained all along that the Lawson Radiation was the by-product of faster-than-

light travel," he said. "Ignoring the argument of aliens and such, we have good evidence at present. There is a body of negative mass approaching Terra. This negative mass is approaching Terra at a velocity not only exceeding the velocity of light but traveling several hundred times the velocity of light."

He paused. Then he sat down—hard.

"What's the matter?" she asked, seeing the look of consternation on his face.

"The photographs," he said bleakly.

"Yes?"

"Can a rifle bullet traveling faster than sound be heard before it arrives?" he asked enigmatically.

"No."

"Then a body traveling faster than light cannot be seen before it arrives! Those pictures show a region of the sky and a few stellar catastrophes that took place years ago when the light left there unless—"

"Unless what?"

"Unless the telescope made of the teleport mirror effect utilizes a type of radiation that propagates faster than light."

Rhine nodded. "If celestial bodies can travel faster than light," she said, "it stands to reason that some form of energy can travel faster than light also. After all, matter is one form of energy."

Carroll smiled quietly. "This is negative matter," he said. "And so far as I have been able to calculate, the only thing that can avoid the Einstein increase in mass with increase in energy would be some object having negative mass. But negative mass is as meaningless a term as negative energy."

"A gentleman by the name of Dirac got the Nobel Prize for postulating states of negative kinetic energy," said Rhine.

"The positron," nodded Carroll.

"Then it must make sense."

"It does. A normal body possessing energy tends to dissipate that energy by transferring the excess to other bodies possessing less than it does. A body possessing negative energy would demand that energy be applied to it in order for it to acquire a state of energy equilibrium.

"The positron, according to Dirac, is a state of negative kinetic energy which is satisfied only when the energy of an electron is applied to it. In the process known as 'pair-production', where hard gamma strikes matter and releases an electron and a positron, it is actually a case of separating the electron from its positron, leaving in effect

a 'hole' in the level of energy.

"It is a man whose bills are not paid but are merely covered by written and certified checks. Send away one check and you have a debit in the man's account. The positron is satisfied very quickly, however, since there is a large excess of free electrons to fall into place.

"These cancel the positron—and that process produces hard gamma rays again—of the same energy content as required to cause the 'pair production' in the first place. About one million electron volts plus," he added.

She hesitated a moment.

"Now—about this negative mass," she said.

"Simple," he said. "Very simple. A negative mass is the only thing that can exceed the speed of light. Similarly negative energy is the only kind that can propagate in excess of light. So now let's juggle equations until we can reproduce the same."

Rhine nodded, picked up a pencil and then looked at him expectantly.

"Put down," he said with a smile, "the first equation that ever told the truth about the relationship between mass and energy. Energy 'E' equals Mass 'M' times the squared speed of light, 'C<sup>2</sup>."

"And from there?"

"And from there we start juggling until we find out how to introduce the negative factor. And I do not mean by dividing by the square root of minus one," he told her.

**D**OCTOR POLLARD looked up at the man who stood before his desk. "Mr. Galloway," he said, "You may believe yourself normally right but you are ethically wrong."

"Morals and ethics be hanged!" snarled Rhine's brother. "That nut has kidnaped my sister again."

"Not without her aid," smiled Pollard.

"Aid be hanged too!" shouted Kingston Galloway. "He tried to kill her once and he may try again."

"Look," said Pollard quietly. "There are times when personality and identity mean nothing. I think well of my life, as much as you think of yours. Yet I'd feel less than human if I permitted myself and my ideas to stand in the way of civilization."

"Stop talking like a superior being and come down to facts," yelled Kingston Galloway.

"I am. James Forrest Carroll is the only man on earth who can save Terra from cer-

tain destruction. Your sister can be of help to him."

"How?" demanded Kingston.

"Rita is an excellent librarian. She has the ability to recall facts and figures beyond most people. She has almost an eidetic memory. Whether Carroll is sane or completely schizophrenic-paranoid, his statements and his theories are solid when based upon his own line of reason.

"That his line of reason does not agree with heretofore known physical facts is of no consequence since several of the unsound, unscientific, un-factual reasonings have produced things that work. Unsound as they may seem, they are not unreasonable—excepting to us who can not reason that way."

"Get to the point."

"Whether Carroll urges Rita to display a horde of facts because he thinks they come from an alien mind in a human body, or whether he understands the truth—that they are merely repeats of his own statements made when he does not recall them—the fact remains that Rita is his tabulator, his encyclopedia of fact, his memory. She and she alone can put down concurrently things he has reasoned out, once when himself and next when he is—un-sane."

"But she's in danger!"

"So are we all," replied Pollard easily. "And Rita herself knows the danger. And," he added with a snort of derision, "of what good is your so-called moral integrity going to do you a year from today if James Forrest Carroll is stopped from preventing the calamity due to erase Sol from existence in a month?"

"He's a madman. How can you believe that this danger really exists?"

"The danger is what drove him mad."

"And made him believe that Rita and I are aliens?"

"Merely manifestations of the hallucination."

Kingston Galloway growled in his throat. "I ought to kill you," he snarled. "Not only have you left my sister unprotected, but you've condoned her kidnaping and now you sit there and tell me that the fate of the world lies in the mind of a lunatic."

Pollard smiled. "There have been many historic times when civilization was nearly torn down by a madman. Let history record once when civilization was saved by one."

"At my sister's expense!" Kingston stormed, barely able to control his rage.

**P**OLLARD shook his head. Then he said patiently, "James Forrest Carroll was driven mad by this knowledge of inescapable doom, because his subconscious mind knew that the answer was hidden in the realm of physics termed 'unreasonable' to the true physicist.

"Once James Forrest Carroll has succeeded in removing this menace he will know that amnesia and mental retreat are not necessary for the preservation of his sanity. There will undoubtedly be evidences, too, to support the 'unreasonable' physics in terms of what we know to be true. Thus Carroll will be completely self-justified and will be returned to normal."

"You talk a lot about self-justification," snarled Kingston.

"Everybody is self-justified," said Pollard. "Sanity is when the self-justification of the individual is, within certain limits, similar to the self-justification of the average human being. Insanity is when the self-justification of the individual lies outside of reasonable limits. Once Carroll's self-justification—which is one more way of saying his 'view-point'—is reasonably similar to others, sanity will return."

"And in the meantime, what about Rita?"

"Rita is at worst a good soldier," said Pollard. "At best, she alone will realize the full truth. But just remember neither morals nor ethics mean a thing to a civilization that has just perished before a nova. And I have more than a little respect for the morals and ethics of both Carroll and your sister under any circumstances."

"But she's my sister and he's—"

"Shut up. You're talking like a fool. They're doing nothing wrong. Stop them and you'll destroy the earth. Perhaps if you'd left him alone—them alone—Carroll might not have identified you with his hallucinatory aliens."

"Yeah? And just what is an alien?" demanded Kingston.

"An alien," smiled Pollard, "is any man who does not think as you do!"

"Bah!" cried Kingston, turning on his heel. He left the office swearing eternal vengeance.

An hour later, Majors came bursting into Pollard's office. "Pollard!" he exclaimed. "Listen! That wildman Kingston Galloway has just collected a gang of his cohorts, friends and buddies and they've all taken off like wildmen. They're heading for Wisconsin!"

"The stupid idiot!" exploded Pollard, coming out of his chair. "Come on!"

\* \* \* \* \*

**R**HINEGALLIS clasped Carroll's arm tightly as she stood beside him and looked at the almost-vibrant blackness that seemed to shimmer in the encircling wire mounted on the wall. Carroll was too busy to pay attention to her clasp.

He was busy adjusting knobs on a hay-wire equipment on the bench beside him. The shimmering blackness flared briefly at one side, turned milky for an instant near the top—and then a pinprick of utter-nothingness—appeared to one side of the circle.

Carroll adjusted knobs, brought the spot of sheer black into the center of the artificial plate and then expanded it. It was noticeable only because it—as a circle of utter no-response—was less energetic than the misty background.

"That," he said, "is it."

"The negative mass?"

He nodded. "Is the 'fence' ready?"

"Checked."

"Now's as good a time as any," he said laconically. He left the vantage-point and went to another panel in the laboratory and began to throw switches.

Five miles from Carroll's home a ten mile circle of wire came to life. Set on insulators mounted on trees in a rough circle, the area ten miles in diameter shimmered with a thin, misty film of energy—the same energy as that of the teleport.

It thickened as Carroll adjusted the driving gear, thickened and became more positive until it was as shingly opaque as the teleport screen-mirror. Trees in the circle, cut clean at the surface of the mirror fell, impelled by gravity into the screen. Then above the perfect plane of energy was nothing.

The trimmed trees fell helter skelter into a deep gorge from a smaller teleport plane twenty miles to the north.

Then the perfect plane bowed downward into a shallow paraboloid of revolution. As it went down the up-thrusting trees were trimmed off and the matter in them converted into energy. A minute but perfect sphere appeared atop a pillar of energy not far from the rim of the paraboloid.

Down went the center of the paraboloid, down into the bowels of the earth, and the sphere of stored energy grew rapidly. Down went the center, deep, until a perfect parabolic reflector ten miles in diameter and twelve miles deep resulted. The cubic mile after cubic mile of earth, rock, water, and forest were stored as energy in the sphere, now a full three feet in diameter.

A landslide started near the rim, and earth rumbled forward down the side of the depression, disappearing as it touched the outside of the energy-shell that was Carroll's reflector. The rim of trees that supported the energizing ring fell into the widening inverted funnel but its job was over. The mirror was stable, held by the energy contained in the perfect sphere on the column near its edge.

The rumbling stopped as stability came. The roar, all of it sheer physical sound from tortured earth, died and left a hollow vacancy in comparison.

Then Carroll took a small set of levers and manipulated them like a man flying a drone airplane. The sphere of energy left the column and was driven over the gaping maw of the mighty reflector. Down it dropped until it was at the exact focus of the paraboloid. There it compressed to almost a point.

"This," said Carroll, "is it!"

He reached for the master switch just as a flashing bolt of coruscating energy dazzled across the room, searing his arm.

"King!" screamed Rhinegallis. "Don't!"

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## CHAPTER XIII

### *Last Chance*

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**T**HROUGH the door swarmed Kingallis and four of his henchmen. They paused to get their bearing and then they plunged forward, shouting. Rhine made ineffective gestures against them—pure instinct, for her senses were shocked by their abrupt appearance.

Carroll cursed. His sense of timing told him that there was no second to waste, yet his right arm hung useless and he was reeling weakly from the shock. They did not fire again as they came swarming across the floor, but their interception of his move was as effective. Kingallis, with an angry shout,

caught Carroll and hurled him away from the panel.

Two of the others took Rhine by the arms and drew her back out of the way.

"Now!" snarled Kingallis, with sheer animal tones in his voice. "We'll see about this!"

He waved the other two aside and back and then stepped forward to slap Carroll across the face. The blow, meant as an insult strong enough to arouse fighting instinct, was strong enough to stagger Carroll.

"Weakling," scoffed Kingallis. He back-handed the staggering physicist again and again, driving Carroll against the far wall of the laboratory.

"Come on and fight," sneered Kingallis.

Rhine shrieked in mad anger. "Fight?" she shrilled, "after you've shot him?"

Kingallis kicked Carroll in the abdomen. "Coward!" screamed Rhinegallis. With a superhuman strength born of sheer madness, Rhine hurled herself out of the hands of her captors and raced across the floor. Her fingernails came down across her brother's face drawing a torrent of blood from torn eyelids. At the same time she kneed him in the stomach. Her blow was more effective than Kingallis's had been on Carroll. He stumbled back writhing in pain.

But only for a moment—he straightened and cursed blackly, stepped forward and slapped Rhine across the face, hurling her back into the hands of the others by the force of the blow. Then he turned quickly for Carroll had recovered.

But instead of going to Rhine's rescue Carroll turned and raced madly across the floor. He hurled his good shoulder against the master switch, driving it home.

Relays slapped home—

And light itself was tortured. The very walls of the laboratory seemed to shake and waver because of the mighty electrostatic stresses set up in the continuum of space. The square, precision-machined equipment warped into non-mechanical distortions.

Vastnesses of energy flowed in a mad vortex. Steep gradients of electrostatic charge flowed back and forth like the surface of a stormy sea, and corona discharge hissed and trickled out of all sharp corners.

The nerves tingled and muscles twitched; normal senses produced abnormal stimuli. In one man's hand one of the weapons discharged into the floor and he tried to hurl it from him with a cry of pain. He could not open his clenched hand.

Twitching with every erratic reversal of the charged field that surrounded the area, James Forrest Carroll painfully pulled himself to his feet and looked across the shimmering room. Pride and self-confidence added to his will-power. He stood there as his tingling brain considered the facts of the matter.

Regardless of what happened now—regardless of himself or of anybody—he had won this battle. He laughed and in the tortured continuum of the place his laugh sounded like a mad cackle.

Fear was painfully slow in coming to the faces of Kingallis and his cohorts. Then it came—fear and the realization of danger. King gave an angry, wordless cry and tried to cross the laboratory floor. He could not quite make it.

**C**ARROLL turned his back on them and watched the viewplate on the far wall. It was wavering and distorted but it showed the sky and the sphere of negative mass.

Out in the parabolic reflector, the tiny compressed sphere of energy disappeared into a hole of blackness, from which expanded an exploding shell of sheer light-energy. Against the reflector it poured in a howling torrent and into the sky it went—and disappeared.

Faster than the light it created it went, on and out into space. Gone—unseen—undetectable—save for the black circle on the wall of Carroll's laboratory.

There it was evident as a column, a cylinder that blazed like the fury it was. How long it lasted is beyond guesswork. Its duration was several seconds in the making, its velocity the speed of light multiplied by an unknown quantity that registered in the thousands.

It was—the Lawson Radiation—the Lawson Radiation multiplied and increased as the light from the sun is greater than the pale ineffective illumination coming from a Will O' the Wisp.

It only took seconds, while the continuum heaved and strained to regain its equilibrium and the sensitive nervous systems of those in the laboratory tingled and screamed to the dictates of flowing energy. Seconds only it took for that flying column of energy to reach the black circle that was the negative mass that menaced Terra.

Yes, seconds only, it took. The negative mass that menaced Sol could not have been

far away.

Then cylinder and sphere met in a singular lack of display. The cylinder, narrow but shining, bored into the sphere, dark and menacing. Perceptibly, the sphere slowed, dragged, came to a halt—then accelerated in the reverse direction.

In milliseconds the celestial body of negative mass had been stopped and re-started on its return trip. It accelerated swiftly, the acceleration-factor itself rising as the energy from the column became the energy of motion of the negative mass.

A negative mass—similar to a negative energy-level—demands energy before it can be stable. Its demands were satisfied and then satiated. It raced into unthinkable velocities before the column of energy was all used up and still the column poured into the negative mass.

It could not have been accomplished against a positive mass but the negative mass possessed negative inertia. The harder it was driven, the less energy it took to drive it harder.

Across space it went, becoming a pinpoint in Carroll's artificial viewplate. The stars of the galaxy behind it shone brightly—all but the one directly in line with the flight of the negative mass.

Then, as the spacial stresses diminished and a man could think again in that area, there was a tiny flash on the viewplate.

And James Forrest Carroll laughed. "Finis" he roared.

King shook himself. "You madman! You destroying fiend—get him!"

The laboratory echoed and re-echoed with the wild thunder of released energy. Rhine dropped beside Carroll. Her right hand flicked up to a switch on the panel, and out of thin air there appeared a tenuous inverted bowl of light. Flying bits of metal as well as the bursts of released energy deflected from the inverted bowl.

Painfully, Carroll stood up and advanced across the floor towards Kingallis and his cohorts. He walked through a veritable tornado of sheer death, and Rhinegallis followed him because to get outside of his protecting shield was to die.

They looked at him as they would have viewed a specter, for he advanced through their hail of death unharmed. In fright they herded back, their weapons lowered helplessly.

Cornered and helpless against the teleport



they waited, shivering in fright.

"You said once," snarled Carroll, "that the universe was not large enough for your kind and mine. As I have destroyed your world so I'll destroy you!"

He lunged forward, and they turned and rushed madly into the teleport. Carroll shook his head.

"They—?" asked Rhine, shakily.

"The spacial stress is still present," he quavered. "They were teleported into the nearest and strongest field." He turned and stumbled across the floor to the controls and shut off the gigantic reflector. The rumblings started as a final landslide tumbled down the declivity into the bowl. The screams of King and his cohorts were lost in the thunder of avalanche.

**J**AMES FORREST CARROLL sat in the easy chair in Pollard's office and smiled tolerantly at the psychologist.

"Sure, sure," he said easily. "All in my mind."

Pollard grunted. "Well, it is."

"Baloney. I suppose Kingallis didn't come to prevent me from destroying his world?"

"He came—"

"Knowing," said Carroll. "that if he stopped me he and his kind could go on with their mad plan for conquest. May I ask about this?" he held up his injured arm.

"When I last saw Kingston Galloway—" started Majors.

"You call him Kingston Galloway," laughed Carroll. "But I know he is Kingallis. Now go ahead."

"He and his bunch were carrying pistols."

"He shot at me with some sort of energy weapon. This is a burn, not a bullet-hole!"

Majors shook his head. "Not a chance. Admitting that what you sent out was an energy-beam, it is still impossible to believe that a hand-sized energy weapon is practical."

"Granted," said Carroll. "But then there's this evidence. Explain this, will you? I don't mind getting my arm burned badly if it will only make you believe."

Doctor Pollard shook his head with a smile. "Stigmata," he said. "The 'Bleeding Madonna' who exhibits wounds and bleeding from hands, feet, sides and forehead on Good Friday. A sheer mental phenomenon—psychosomatica. This is the same. You are so convinced as to the positiveness of these aliens that your mind produced this burn

as evidence."

"Brother, this ain't no mental mirage," snapped Carroll.

"No one said it was. But the power of the human mind is such that the cellular structure of the body will exhibit burn-trauma when the mind believes it so. So one of them creased your arm and you reacted as though it were the burn your mind believed it to be.

"We've been through all this before. It's just cause and effect and result. This time it is only the latter that counts. You've destroyed the menace that drove you insane."

"Look," said Carroll, "I've been through it."

"And nothing you've turned up with can be construed as any evidence beyond the manufacture of your own mind. And nothing that you will ever find—"

**C**ARROLL nodded angrily. "I've got a couple of projects yet. One is the hand-held weapon—just to prove to the bright boys who think this bum wing is thought-up—that such is possible. The other may bring proof, but it may take some time.

"I've still got me a job. I'm going to develop the faster-than-light space drive and go out looking for aliens. They had interstellar travel. They all couldn't have been destroyed."

"Forget it, Carroll."

"Forget it?" exploded the physicist. "Forget it when I've a whole world of physics waiting for me to develop? Not on your life!"

He stood up and grinned at them boyishly. Then he left and as the door closed Majors looked askance at Pollard.

Pollard smiled. "He'll forget it," he said. "The aliens will become dimmer and dimmer in his memory until they are gone. But right now we have a fairly stable James Forrest Carroll on our hands. And, Majors, the final therapy is out there waiting for him. Fine girl."

"Rhine," said Carroll softly as the door closed behind him. "Rhine."

"I'm—waiting," she replied. "But why not call me Rita. Everybody else does."

"I know," he said, looking at her pointedly. "But I'm amused, sort of."

"Why?"

"Because the one thing that permitted you to gain access to our research was the

thing that licked your pals."

"And?" she asked, puzzled.

"People too often try to divorce the mind from the body," he told her. "It can't be done."

"I don't follow."

"Infants are all brought into this world alike from a mental standpoint. Yet within a few short months each is a separate identity with a different personality, no matter how similar the environment and heredity. This is because the mind of man is but the accumulated result of what his sensory channels bring it.

"An alien you were once, Rhine. But from the instant that you took over that very nice Terran body your mind began to receive information and experiences through the sensory channels of a Terran body.

"Every item, every experience, brought

to your mind through Terran channels forced your mind to interpret it in terms of Terran nervous stimuli. Therefore, from the second instant after taking over, you began to change subtly to the Terran.

"Go on—tell me the rest," she said with a smile.

"Day by day, week by week, you will become more and more Terran. Eventually, your alien experiences will fade and you will be as one of us and no longer alien."

"You know," she said shyly, "someday I intend to present you with a little alien."

"That'll be interesting," he chuckled. "You are becoming more and more Terran even now."

"But not," she said with absolute finality, "until we have paid a visit to the clergy!"

"See what I mean?"

She laughed—very humanlike.

