

Carter persuaded Helen to put on the learning cap

# The Knowledge Machine

By EDMOND HAMILTON

*Pete Purdy and James Carter establish Electrical Education as a shortcut to learning, but fail to foresee the result!*

**I** WISH now I'd never heard of Electro-Education! Sure, it made me a multi-millionaire. But what else did it do to me? What did it do to everybody?

The trouble with me was that I was too ambitious. I had a nice wife and we were planning on a family. I wasn't satisfied with just being Pete Purdy, the best electric re-

pair-man in New York. I wanted something bigger and better for *my* family. Boy, did I get it!

It began when I was called over to Gotham University to repair a motor-generator that had gone sour. It was in the laboratory of Doctor Lewis Kindler, the big psycho-physiologist research man there. Of course, I

didn't know then who he was. To me, he was just a thin, haggard old guy who looked like a nervous wreck as he told me about the generator.

"It must be repaired immediately—at once!" he shrilled. "We're just completing an epochal research. Epochal, you hear?"

I shrugged. "I'll do the best I can. But this model's complicated. It'll take a week to rip her down and rewind the coils."

"A week?" he screeched. "Impossible!" "We can't wait that long!"

His colleague, a stocky, bullet-headed young scientist named James Carter, tried to soothe the old boy down:

"Doctor Kindler, you really must rest! You have been working too hard for months on these experiments. You know now it's a success. Why not try to relax?"

"Relax?" screamed the old scientist. And then, all of a sudden, he went clean off his head.

He just collapsed, raving about rays and neurones and a lot of other stuff. Young Carter called doctors and officials of the university quick. They took him away, yelling at the top of his voice.

Next morning as I was working in the laboratory on the generator, Carter came in looking pretty blue.

"Doctor Kindler has had a complete mental breakdown from overwork," he told me. "He's been removed to a sanitarium, and may remain there in a schizophrenic state for years."

"Schizophrenic? That's tough." I wondered what it meant. "I guess the old man was a pretty big shot in science, huh?"

"We had just completed the greatest discovery in the history of psychology," Carter said. "He was tops in the field."

I kept on working at the generator, while young James Carter walked up and down the laboratory looking pretty moody.

He kept staring at a big machine in the corner. It was nothing I could recognize, for I'm a good electrician but these crazy scientific hookups are way over my head. To me, it looked something like a permanent wave machine, with a metal cap like the dames put over their heads.

Carter spoke as though he was talking to himself, gritting his teeth as he looked at that big machine.

"A discovery that means millions, billions! If I only had enough money to develop and exploit it!"

I PRICKED up my ears at that. Scientific discoveries don't interest me so much, but millions interest anybody.

"What is the thing?" I asked. "Some new kind of rig for atomic power?"

"No, no, it's nothing like that," Carter muttered. "It deals with the mind. I could revolutionize the world with this thing if I had money enough to develop improved apparatus."

"Won't the university put up the dough for the stuff you need?" I asked him.

He laughed kind of sour. "Of course they would. But they would also then appropriate all title to it. Whereas if I could develop it myself, it would make me the richest man in history."

That interested me a lot. Here was I, Pete Purdy, with ambitions for Helen and the family we planned to have, and maybe I'd stumbled on a chance to get in on the ground floor of something big.

I got up and went over to Carter and looked at the machine with him.

"How much dough would you need for new apparatus?" I asked. "And what is the discovery, anyway?"

Carter looked at me, his eyes narrowing a little as though he saw me for the first time.

"You mean that you might be interested in investing in it, Birdy?"

"Purdy," I said, and I hedged a little then. "I don't know. I've saved some money and also my wife's Uncle Dimplewitt left her a legacy last year. We've got thirty thousand and I was figuring to open up my own electric repair-shop when I got a little more."

Carter bit his lip. "Thirty thousand," he muttered. "It might be done with that. It just might."

"Hold on, don't spend my dough so fast!" I told him. "First, what is the gadget?"

He got all eager and excited as he explained. "It's a new method of education."

"Oh!" I said, and I guess my voice was plenty flat. "Well, that's fine. But I don't think there'd be much profit in that."

"You don't know what you're talking about!" Carter blazed. "This method of education is *new*! It's something entirely undreamed of until now."

He asked me:

"When you learn something, when you learn that the Earth is round, for instance, how does your brain do it?"

"I don't know," I said. "How does it?"

"The nerve-cells of your brain, the neurones, already contain the ideas of *Earth* and *round*," he explained. "Constant repetition of 'Earth is round' establishes a connection between the two neurone-groups, by gradually lowering the resistance at the synapses of neurone-contacts. Thus, when in future you think of *Earth*, the thought-impulse flashes along that low-resistance path to the specific neurones containing *round*."

Being an electrician, I could dimly understand that.

"So that's how it's done?" I said. "And that's why you have to study things so long to learn them?"

Carter nodded quickly. "Long study and repetition establishes the neural paths necessary for remembering. But suppose, by applying a tiny electronic impulse from outside, you could *artificially* establish a low-resistance path between those two neurone-groups?"

I got that, too. "Then I'd know that 'Earth is round' without having to bother learning it?"

"That's the idea!" Carter said. "And that's what Doctor Kindler has been working on for years. I worked with him, of course," he added hastily. "The discovery is as much mine as his."

"You see," he went on, "we invented a scanner that can change the labyrinthine neural-connections of the brain by tiny electronic impulses, just as you can rewire that generator's coils. With it, we can set up any desired neural paths in an instant by applying just the right electronic impulses at the right points in the network.

"Any ordinary set of facts requires thousands of new neural paths in the brain. To learn a subject like Sanskrit, for instance, requires tens of thousands. The scanner can put these new neural connections in your brain in a flash, by projecting a pre-determined pattern of electronic impulses."

"Can it be done?" I asked him.

"We *proved* it could be done!" Carter told me. "Doctor Kindler knew French, and I didn't. The scanner first scanned his neural patterns, isolated those having to do with word-meanings, and recorded them on a moving tape. Then we ran the tape back, reversing the scanner so it would repeat that pattern of electronic impulses on my own brain. It took ten minutes. At the end of that time, I knew French perfectly!"

THAT was a little hard to swallow.

"You mean, you didn't have to study it or anything?" I said. "You just knew it, all of a sudden?"

"Exactly," said Carter. "I see you look incredulous. I can soon prove the thing by running the same tape through on you."

He grabbed the big metal cap that was connected to the machine by a lot of cables, and jammed it down on my head.

I began to protest. I didn't like the idea of anybody fooling around with my mind. But Carter switched on the machine before I could stop him.

There was a humming, and a tape started unwinding inside the machine. I didn't feel anything except a queer tingling in my head. In a few minutes the humming stopped, and the tingling stopped too.

Carter took the metal cap off me and looked at me.

"Well, I don't feel any different," I told him.

"*Vous savez le francais maintenant?*" he shot at me.

"*Oui, parfaitement,*" I shot right back at him. "*Mais—*"

I broke off, and goggled. "Holy cats, it worked! I do know French, just like that!"

I did, too. I could speak it as easy as English. And I'd never known a word of it in my life before. The thing floored me.

"Now do you believe?" Carter asked.

"And how!" I managed to say. "But I still don't see how there's millions to be made from it."

"Think, man!" he said. "It takes a student four years and several thousand dollars to get a university education. Suppose he can go in and get it off tapes for a few hundred dollars?"

The possibilities of it hit me, just like that. "Say, there'd be millions of students for prospects, every year!"

"And college students are only a small part of the market," Carter pointed out. "Everybody would like to know more than they do. Everybody would like to know higher mathematics or Latin or architecture or a hundred other subjects. They don't learn them because it takes too much time and work to study them. But if they can just buy them?"

"Why, there's no limit to the market!" I said. "How many different subjects could you pour into a guy's brain with the thing?"

Carter explained that there was a limit to

that. "The potential neural paths in each brain are limited in number. We found that the average person has a neural index that will allow him to absorb the equivalent of a Ph.D. education from the tapes, but not much more."

He added quickly:

"But there'd be a chance for repeat business even so. The scanner can *erase* this new-found knowledge from the brain, by using a neutralizing electronic impulse. Then the student can learn entirely new subjects."

Right then and there, I saw my big opportunity and I grabbed it.

"You can count me in!" I told him. "But mind, if I put up the dough for the apparatus, I get one-third interest."

"One-third?" said Carter, kind of puzzled.

"Sure, one-third for me, a third for you, and a third for Doc Kindler," I reminded him.

"Oh, certainly," Carter said hastily. "I'll put Doctor Kindler's share in trust for him. But you understand we'd better not use his name at all in developing this. It would prejudice people if they learned that the co-inventor of the method is now a mental wreck."

Next day, without telling Helen, I drew out our thirty thousand and Carter and I signed the partnership papers.

He kept Doc Kindler's name out, as he said. And he'd decided to call our firm the "Electro-Education Company."

Carter rented a small building up in the Bronx, and there we put up the apparatus that he assembled from the stuff I bought.

"How about those learning-tapes, Carter?" I asked him at the end of the week. "We've got to be able to sell people more than just French."

He grinned at me. "I've got a lot of tapes on every subject, all ready. You see, some of the best scientists and scholars in the world are on Gotham University's faculty. Under pretext of X-raying their brains, I used the scanner to make tapes of everything they know."

That kind of shocked me. "It sounds like stealing their knowledge, without them suspecting it. I don't want anything like that."

"Stealing?" Carter answered quickly. "Why, of course not! We'll pay them a fat royalty every time we use the tapes, of course."

We tried the tapes out on each other. They worked fine. I went home that night,

bursting with a dozen professors' knowledge.

HELEN had her brother Harry and his wife for dinner that night. Harry has always snooted me, on account I'm an electrician while he went to college and works in an office.

Tonight, I was loaded for bear when he started making one of his highbrow cracks to show off. It was a crack about astronomy.

"Harry, you're a million miles off base," I told him. "The Riemannian conception of space you're talking about is a dead pigeon. It's been proved mathematically—" and here I went into the equations.

Helen and Harry and his wife all looked at me bug-eyed. I kind of enjoyed it, and I carried on from there.

I delved into ancient history, gave some chatty remarks on modern biophysical theory, and then compared a Sanskrit drama with an old Greek tragedy by quoting yards of each in the original.

"Where in the name of all that's holy did you pick up all that, Pete?" gasped Harry.

I just laughed lightly. "Oh, I'm not one to brag about my learning. I kind of like to keep my lamp hid underneath a bushel."

"I notice that your grammar is still hidden under a bushel," Helen, like a wife does, put in.

That dashed me a little. I'd forgotten that my grammar still wasn't so hot. We hadn't had any tape on elementary English Grammar.

That night after the others went, I told Helen the whole story and how our money was now invested in the Electro-Education Company.

She hit the sky. I had been trapped by a swindler, I was an idiot, and we were going to die in the poorhouse. Next morning she went with me to give Carter what-for and demand our money back.

Carter handled her beautifully. He inveigled her to put on the learning-cap, and then shot French, Music, Art and a lot of other stuff into her. From then on, Helen was enthusiastic.

So next week, we hung out a sign and advertised in the newspapers. Carter had written the ad, and it was a good one.

"Do you want to know more?" it asked. "Do you yearn to learn? But are you repelled by the dreary prospect of months and years of study?"

"Electro-Education is the answer! Study,

classrooms, schools, are now obsolete. We guarantee to bestow on you in a few hours enough higher education to pass any university's graduation examinations."

Next morning we found a half-dozen prospects waiting to get into our Electro-Education shop. Only it turned out they were all reporters who had come to write funny pieces about our project.

Carter was smart. He didn't get mad, he just kidded them along and got one of them to try a sample course. Then he shot a full course of Higher Accounting into that chap.

It seems that that reporter was a guy who never had been able to add two and two, he had such a blind spot for arithmetic. When he got up and realized how much he knew, he let out a yell.

The other newshawks accused him of faking, at first. But the argument induced some of the others to try it. Carter gave them Chinese, Nuclear Physics, anything they asked.

That night Electro-Education hit the front pages of the newspapers with a bang! Some of the articles still claimed it was a fake, but a lot of the writers swore it worked. The result was that we had a crowd around our EE shop next day.

Most of them were just curious, but there were a few with money enough and curiosity enough to try a few tapes. When they went out and told the crowd about it, others started coming in.

Being near Gotham University, in two days we were handling a crowd of students so big they lined up for blocks. They came in with their money clutched in their hot little hands, and they went out crammed with every bit of knowledge their own professors had.

Then after three days, the Better Business Bureau, the District Attorney's office, and the police all came down on us.

"This thing is a barefaced swindle of some kind and I shall see that these two men get prison for it," the D.A. announced.

Carter had been expecting just that, and had a lawyer all ready when the preliminary hearing was held.

He brought in our witnesses—joyful college students who had quit going to classes altogether because they were dead sure of passing anyway.

Then Carter sprung his clincher.

"Your Honor," he said to the judge, "the courtroom janitor has agreed for a consider-

ation to let me demonstrate Electro-Education on him. Is the court agreeable?"

**T**HE court was agreeable. So right there in the courtroom, Carter set up our EE apparatus and used it on the janitor.

This janitor was a big fatheaded old guy they called "Puddinghead," on account everyone around court knew how dumb he was.

Well, Carter shot all our law courses into him. He gave him not only Civil Law, Criminal Law, Corporation Law and Theory of Jurisprudence, he also gave him graduate courses in such fancy stuff as the Justinian Code and Medieval Ecclesiastical Law.

When it was over, and it took little more than an hour, old Puddinghead got up and talked. He not only proved that he knew everything now about the law—he proved that the judge himself was woefully ignorant about a lot of it.

"Electro-Education is obviously all it claims to be," said the judge quickly, to stop this painful expose. "Case dismissed."

The courtroom exploded with excitement. Reporters crowded wildly around Carter. I found the judge himself plucking my arm.

"Mr. Purdy, in confidence, could you give me those courses too?" the judge asked timidly.

Overnight, Electro-Education became the sensation of the country. It was like a bomb going off.

I'll admit that it sort of floored me. I'm a modest kind of a guy. I'd figured on profits, on maybe even a chain of education-shops some day, but I hadn't figured on what EE rapidly became.

It didn't grow—it exploded. Within a month, Carter had branches started or under way in every big city in the country. He'd bought up a factory to turn out the EE apparatus. We trained our own operators. It was simple, since we just ran an EE tape to teach them.

Our advertising plastered the newspapers, the billboards, the radio. We made the whole country EE conscious, overnight. One of our best ads was:

WHY GO TO COLLEGE FOR KNOWLEDGE?  
Would You Drive a Horse and Buggy  
To Work?

GET SMART THE MODERN WAY!

And there was a big billboard picture that showed a guy sitting with one of our EE caps on his head. It advised:

DON'T BE DUMB, CHUM!

Put On Your Learning-Cap Today!

For the classier trade, the advertising men had worked out displays that showed a dumb cluck cringing in the middle of a lot of brilliant-looking conversationalists.

"Do you envy your friends when they discuss learned subjects?" the ad asked. "Why be inferior? EE will make a new man of you mentally."

They poured into our EE shops. They came in such droves that the police had to establish lines at every shop.

Carter and I had big offices down in the Monarch State Building, by now. My work wasn't hard—I arrived at eleven each morning, smoked a cigar, and then went to lunch for a few hours. The afternoon was not quite so tough.

But Carter really worked. I never saw a guy with so much ambition. It kind of scared me, the way he kept EE mushrooming out bigger and bigger each day.

The universities and colleges had gone nuts. They tried first to suppress us but they couldn't. They forbade their professors to sell us knowledge-tapes. But we offered such big money that the professors did let us put their stuff on tapes, on the sly.

So the universities just gave up and closed their doors, all except a few bitter-enders. Then it was the turn of the high schools and the public schools.

Senators got up in the State Legislatures and demanded a new educational system.

"Why should we support a vast, expensive, outmoded school-system when EE can give every child better schooling at a fraction of the cost?" they asked.

The teachers all fought that, of course. But what chance did they have? The taxpayers didn't want to keep up the schools. The parents didn't want to, when their kids could learn it all so easy by EE. And the kids themselves sure were wholehearted for EE from the start.

The result was that the State set up, instead of schools, EE dispensaries in which our own operators gave the kids their stuff. Every kid had to go to school—one hour a year. He got his year's work shot into him by tape, and that was that. And the State paid us a set fee for every pupil.

Money? It came in by tons, by carloads. All over the country, all over most of the world, EE was replacing the schools and colleges. And still Carter wasn't satisfied.

"What we have got to avoid is saturation of the market, Pete," he told me. "As soon as everyone is full of knowledge, they will quit buying education."

"Well, there will still be the new generation of students each year and that brings in a big, steady profit," I said.

"That's not enough," he said in his determined way. "What we need is repeat business, like the movie industry gets. I'll work on that."

And he did. He got big new advertising campaigns planned, that kept the public needled by successive waves of advertising.

**F**OR a while, we plugged science. A man couldn't understand the world unless he was full of science. A woman should be ashamed to meet her bridge-club if she couldn't discuss higher physics or colloid chemistry.

It wore people down, all right. A lot of them came in and had us erase other stuff and fill them chock-full of science.

When a man reached his neural capacity we had to erase to put new knowledge in, of course. We'd had a few sad experiences with guys who wanted to know absolutely everything and who went batty from too much EE. To avoid trouble with the law, our operators were strict on that now.

When our sale of science-subjects began to fall off, we switched our advertising to concentrate on art. We made expert knowledge of art all the rage. Sure enough, people came in by thousands to have their science knowledge erased so they could take on a cargo of art.

Carter had worked out advertising that made young people good repeat customers, too. If they didn't feel satisfied in their professions, why not try a new one?

Lots of young lawyers, for instance, would decide they'd rather be doctors. They'd simply come in and have their legal knowledge erased, take on a full course of medical subjects, and hang out a shingle. Maybe two weeks later they'd be back, wanting now to try engineering.

Me, I was on top of the world, literally. I lived in the highest and biggest penthouse in town. And Helen was in the clouds, mainly on account of our new baby boy who had been born a year after we started EE and who was now husky and thriving.

"And little Percival is going to be proud of his father when he attains maturity," I

told Helen. "Not only because of my wealth, but because of my erudition."

I really talked like that, by then, for Helen had insisted on me taking a full course in English Grammar soon after we started business. I had also taken all the other advanced EE courses my brain would hold, so that in those days there were few wiser guys than me in the world.

"Yes, dear, it is wonderful to know that Percival can be proud of his parents when he grows up," Helen said happily.

Well, that's all you ever know about the future. For it was the very next morning that the whole thing busted.

It busted when an old guy who looked vaguely professorial came crowding into my office in spite of my four secretaries.

"Are you Peter Purdy, the vice-president of Electro-Education Company?" he asked me.

"Yes, yes, but if you have a knowledge-record to sell you should take it to our Knowledge Purchasing Agent," I told him. "I do not handle details like that."

He just stood and stared at me and then all of a sudden he let out a yell.

"The electrician!" he yelled, pointing at me wildly.

Suddenly I recognized the old boy, and I got my feet down off the desk and got out of my chair.

"Dr. Kindler!" I said, all surprised.

It was him, all right—Carter's colleague that had been in a sanitarium all this time being a schizophreniac. But he didn't look out of his head now, at all. He just looked mad.

"Doctor, I'm overjoyed to see you," I said. "And so will Carter be. We had no idea you were cured—"

Doc Kindler interrupted me by shouting at me every dirty name a scientist could think of.

"You blind fools, to turn my discovery loose on the world without knowing more about it! You don't know what you may have done!"

Then he shouted even louder:

"Police!"

I hate to tell what followed. When Carter came in and saw the old doc, he turned a sickly color and started to scam. But the police were already arriving, and then the whole thing busted wide open.

No need to give you the whole bitter story. It's had publicity enough, and enough people

have called me a dope. I suppose at that it's better than to be convicted of theft, like Carter.

Yeah, Carter had just deliberately stolen the old doc's invention and hadn't helped invent it at all, like he told me. He'd figured Doc Kindler was away in the sanitarium for life, not guessing that shock-therapy would finally succeed in restoring the old doc's mind.

I don't blame the old doc for blowing up the way he did when he came back and found out, nor for the names he called me in court. I'd rather be called "a stupid stooge" than a thief, any day.

Sure, they took the penthouse and the big bank-account and everything else away from me. I was lucky that they gave me back my original thirty thousand. Doc Kindler had relented enough to me to stipulate that, when he turned all rights in EE over to the Government.

**Y**OU know what the first thing was that I did when I got out of court that day? I went into the nearest EE shop and had them erase every course I had, even my grammar.

And I did it because I was worried. I was worried by what Doc Kindler had said that day in the courtroom.

"My crooked assistant and this dolt Purdy whom he deceived didn't realize all they were doing when they exploited my discovery!" Kindler said. "When I collapsed, my experiments with Electro-Education were not yet complete.

"I had discovered that the minute electronic impulses used in Electro-Education have a permanent effect on the germ-plasm as well as the soma, but hadn't yet found out what the effect is."

"Will you state your meaning in less technical terms, doctor?" the judge asked.

Kindler's voice was grave. "I mean that the EE impulses have a powerful mutational effect on the genes that control the brain-development of the unborn child."

I got worried.

"Is my little boy going to be dotty because Helen and I took a lot of EE before he was born?" I asked him.

"That, I can't say yet," Kindler said grimly. "I was trying to determine the nature of the effect when I collapsed, and you let Carter talk you into appropriating my work."

That was what scared me into having all

my EE erased before I went home that night. And Helen threw a fit when she heard about it.

"Now don't get hysterical," I begged. "The doc said he didn't know what the effect on Percival would be. It might not be so bad."

"But you and I were almost the first people to take EE, and whatever's going to happen to people's babies because of it, will happen first to Percival!" she sobbed.

We went in and hung over his crib. I couldn't see a thing wrong with him and I said so. He was as fat, healthy-looking a year-old baby as you'd want to see, as he lay there looking up at us.

"Yes, but what about his mind?" Helen sobbed. "He should be trying to talk by now, but he hasn't said a word."

"Maybe I could get him to talk, if I worked hard enough with him," I said desperately. I chucked Percival under the chin. "Say mama, Percival! *Kuchy, kuchy*—say mama!"

Percival opened his mouth and spoke. He spoke in a rather wobbly and shrill little voice.

"I presume, Father," he said, "that the encouraging sounds you are directing at me are *onomatopœic* in origin and are designed to stimulate the faculty of imitation. Nevertheless, I must beg you not to continue making such utterances."

Helen and I gaped at each other. "He talked!" I choked out. "He talked like a professor! You heard him!"

Helen stared, wide-eyed. "But he never said a word before—not a word!"

Percival appeared to be bored. "Really, you could hardly expect me to join in the sort of unintelligent conversation that goes on in this house!"

Yeah, that was the effect of EE's electronic impulses on the unborn. Every EE course that Helen and I had ever taken was in Percival's brain when he was born! The fact that we'd had our own knowledge erased hadn't affected him in the least.

And I was going to have a son that would look up to me. That is a laugh. Our Percival loves his parents, but we will never see the day when we know half as much as he did when he was born!

It was the same with all the other kids born after EE, of course. Every last one of them came into the world equipped with a full cargo of knowledge.

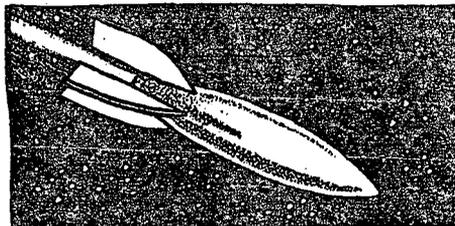
You know how it's changed things. They had to cut the voting and office-holding age to zero, of course.

We couldn't restrict office to adults, when our own kids were ten times smarter than we were.

Half of Congress is under ten years old these days, and the big offices are mostly filled with kid geniuses. I hear there's a twelve-year old out in California that they're grooming for President.

What gets me, though, is this:

These kids of ours still keep piling new knowledge into their brains with EE. Now, twenty or thirty years from now, what are *their* kids going to be like? I do some wondering about that.

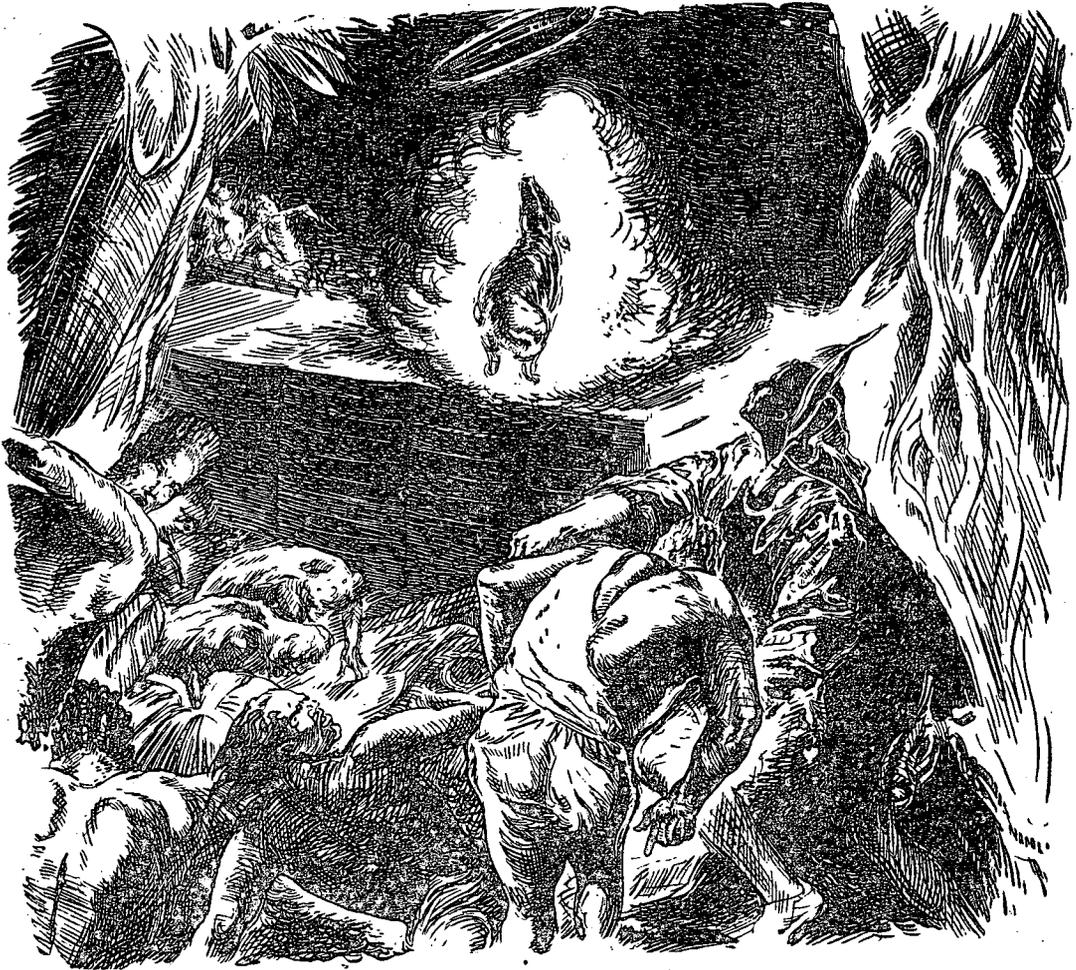


## HOW DEEP IS THE COSMOCEAN?

**R**ECENT instrument recordings made from V-2 rockets indicate that the peak intensity of cosmic radiation is found about 30 miles above earth and remains more or less constant to heights of at least 100 miles, as high as such recordings have been made.

However, according to Dr. Donald H. Menzel of Harvard College Observatory, there may be a definite ceiling upon cosmic ray intensity, although this ceiling will be an extremely high one. It is his theory that the rays are created from local clouds of ions in space within "a few million" miles of Terra.

The so-called showers of cosmic rays are caused, Dr. Menzel believes, by long-wave radiations from the sun. These radiations may energize the ions to the extent of 100,000,000 volts, coming in groups rather than in steady procession and, at their peak, causing such disturbances as radio static on Earth.



Rickey, the mascot, had certainly exploded

# SPACE-CAN

By MURRAY LEINSTER

*A routine visit to Ganymede disclosed a deadly Martian conspiracy—and Lieutenant Joe Peabody was on a spot!*

**W**HEN the *Winship* landed on Ganymede, it was on one of those errands that are handed over to destroyer-skippers, commanding the tin-cans of the space-fleet, because nobody with silver braid wants to do them. Lieutenant Joe Peabody had been officially directed to

proceed to Ganymede, land in 10° north latitude and 10° west of the zero longitude echo-beacon, and contact a Ganymedian chief called Yloop.

He was to deliver to that Ganymedian chief one swamp-car, assure him that Earth Government was very happy to give him the