McQuarrie, the City Editor, looked up as I entered his office.

"Bond," he asked, "do you know Jim Carpenter?"

"I know him slightly," I replied cautiously. "I have met him several times and I interviewed him some years ago when he improved the Hadley rocket motor. I can't claim a very extensive acquaintance with him."

"I thought you knew him well. It is a surprise to me to find that there is any prominent man who is not an especial friend of yours. At any rate you know him as well as anyone of the staff, so I'll give you the assignment."

For eighty vertical miles Carpenter and Bond blasted their way—only to be trapped by the extraordinary monsters of the heaviside layer.

"What's he up to now?" I asked.

"He's going to try to punch a hole in the heaviside layer."

"But that's impossible," I cried. "How can anyone...."

My voice died away in silence. True enough, the idea of trying to make a permanent hole in a field of magnetic force was absurd, but even as I spoke I remembered that Jim Carpenter had never agreed to the opinion almost unanimously held by our scientists as to the true nature of the heaviside layer.

"It may be impossible," replied McQuarrie dryly, "but you are not hired by this paper as a scientific consultant. For some reason, God alone knows why, the owner thinks that you are a reporter. Get down there and try to prove he is right by digging up a few facts about Carpenter's attempt. Wire your stuff in and Peavey will write it up. On this one occasion, please try to conceal your erudition and send in your story in simple words of one syllable which uneducated men like Peavey and me can comprehend. That's all."

He turned again to his desk and I left the room. At one time I would have come from such an interview with my face burning, but McQuarrie's vitriol slid off me like water off a duck's back. He didn't really mean half of what he said, and he knew as well as I did that his crack about my holding my job with the Clarion as a matter of pull was

grossly unjust. It is true that I knew Trimble, the owner of the Clarion, fairly well, but I got my job without any aid from him. McQuarrie himself hired me and I held my job because he hadn't fired me, despite the caustic remarks which he addressed to me. I had made the mistake when I first got on the paper of letting McQuarrie know that I was a graduate electrical engineer from Leland University, and he had held it against me from that day on. I don't know whether he really held it seriously against me or not, but what I have written above is a fair sample of his usual manner toward me.

In point of fact I had greatly minimized the extent of my acquaintance with Jim Carpenter. I had been in Leland at the same time that he was and had known him quite well. When I graduated, which was two years after he did, I worked for about a year in his laboratory, and my knowledge of the improvement which had made the Hadley rocket motor a practicability came from first hand knowledge and not from an interview. That was several years before but I knew that he never forgot an acquaintance, let alone a friend, and while I had left him to take up other work our parting had been pleasant, and I looked forward with real pleasure to seeing him again.

Jim Carpenter, the stormy petrel of modern science! The eternal iconoclast: the perpetual opponent! He was probably as deeply versed in the theory of electricity and physical chemistry as any man alive, but it pleased him to pose as a "practical" man who knew next to nothing of theory and who despised the little he did know. His great delight was to experimentally smash the most beautifully constructed theories which were advanced and taught in the colleges and universities of the world, and when he couldn't smash them by experimental evidence, to attack them from the standpoint of philosophical reasoning and to twist around the data on which they were built and make it prove, or seem to prove, the exact opposite of what was generally accepted.

No one questioned his ability. When the ill-fated Hadley had first constructed the rocket motor which bears his name it was Jim Carpenter who made it practical. Hadley had tried to disintegrate lead in order to get his back thrust from the atomic energy which it contained and proved by apparently unimpeachable mathematics that lead was the only substance which could be used. Jim Carpenter had snorted through the pages of the electrical journals and had turned out a modification of Hadley's invention which disintegrated aluminum. The main difference in performance was that, while Hadley's original motor would not develop enough power to lift itself from the ground, Carpenter's modification produced twenty times the horsepower per pound of weight of any previously known generator of power and changed the rocket ship from a wild dream to an everyday commonplace.

When Hadley later constructed his space flyer and proposed to visit the moon, it was Jim Carpenter who ridiculed the idea of the attempt being successful. He proposed the novel and weird idea that the path to space was not open, but that the earth and the atmosphere were enclosed in a hollow sphere of impenetrable substance through

which Hadley's space flyer could not pass. How accurate were his prognostications was soon known to everyone. Hadley built and equipped his flyer and started off on what he hoped would be an epoch making flight. It was one, but not in the way which he had hoped. His ship took off readily enough, being powered with four rocket motors working on Carpenter's principle, and rose to a height of about fifty miles, gaining velocity rapidly. At that point his velocity suddenly began to drop.

He was in constant radio communication with the earth and he reported his difficulty. Carpenter advised him to turn back while he could, but Hadley kept on. Slower and slower became his progress, and after he had penetrated ten miles into the substance which hindered him, his ship stuck fast. Instead of using his bow motors and trying to back out, he had moved them to the rear, and with the combined force of his four motors he had penetrated for another two miles. There he insanely tried to force his motors to drive him on until his fuel was exhausted.

He had lived for over a year in his space flyer, but all of his efforts did not serve to materially change his position. He had tried, of course, to go out through his air locks and explore space, but his strength, even although aided by powerful levers, could not open the outer doors of the locks against the force which was holding them shut. Careful observations were continuously made of the position of his flyer and it was found that it was gradually returning toward the earth. Its motion was very slight, not enough to give any hope for the occupant. Starting from a motion so slow that it could hardly be detected, the velocity of return gradually accelerated; and three years after Hadley's death, the flyer was suddenly released from the force which held it, and it plunged to the earth, to be reduced by the force of its fall to a twisted, pitiful mass of unrecognizable junk.

The remains were examined, and the iron steel parts were found to be highly magnetized. This fact was seized upon by the scientists of the world and a theory was built up of a magnetic field of force surrounding the earth through which nothing of a magnetic nature could pass. This theory received almost universal acceptance, Jim Carpenter alone of the more prominent men of learning refusing to admit the validity of it. He gravely stated it as his belief that no magnetic field existed, but that the heaviside layer was composed of some liquid of high viscosity whose density and consequent resistance to the passage of a body through it increased in the ratio of the square of the distance to which one penetrated into it.

There was a moment of stunned surprise when he announced his radical idea, and then a burst of Jovian laughter shook the scientific press. Carpenter was in his glory. For months he waged a bitter controversy in the scientific journals and when he failed to win converts by this method, he announced that he would prove it by blasting a way into space through the heaviside layer, a thing which would be patently impossible were it a field of force. He had lapsed into silence for two years and his curt note to the Associated Press to the effect that he was now ready to demonstrate his

experiment was the first intimation the world had received of his progress.

I drew expense money from the cashier and boarded the Lark for Los Angeles. When I arrived I went to a hotel and at once called Carpenter on the telephone.

"Jim Carpenter speaking," came his voice presently.

"Good evening, Mr. Carpenter," I replied, "this is Bond of the San Francisco Clarion."

I would be ashamed to repeat the language which came over that telephone. I was informed that all reporters were pests and that I was a doubly obnoxious specimen and that were I within reach I would be promptly assaulted and that reporters would be received at nine the next morning and no earlier or later.

"Just a minute, Mr. Carpenter," I cried as he neared the end of his peroration and was, I fancied, about to slam up the receiver. "Don't you remember me? I was at Leland with you and used to work in your laboratory in the atomic disintegration section."

"What's your name?" he demanded.

"Bond, Mr. Carpenter."

"Oh, First Mortgage! Certainly I remember you. Mighty glad to hear your voice. How are you?"

"Fine, thank you, Mr. Carpenter. I would not have ventured to call you had I not known you. I didn't mean to impose and I'll be glad to see you in the morning at nine."

"Not by a long shot," he cried. "You'll come up right away. Where are you staying?"

"At the El Rey."

"Well, check out and come right up here. There's lots of room for you here at the plant and I'll be glad to have you. I want at least one intelligent report of this experiment and you should be able to write it. I'll look for you in an hour."

"I don't want to impose—" I began; but he interrupted.

"Nonsense, glad to have you. I needed someone like you badly and you have come just in the nick of time. I'll expect you in an hour."

The receiver clicked and I hastened to follow his instructions. A ringside seat was just what I was looking for. It took my taxi a little over an hour to get to the Carpenter laboratory and I chuckled when I thought of how McQuarrie's face would look when he

saw my expense account. Presently we reached the edge of the grounds which surrounded the Carpenter laboratory and were stopped at the high gate I remembered so well.

"Are you sure you'll get in, buddy?" asked my driver.

"Certainly," I replied. "What made you ask?"

"I've brought three chaps out here to-day and none of them got in," he answered with a grin. "I'm glad you're so sure, but I'll just wait around until you are inside before I drive away."

I laughed and advanced to the gate. Tim, the old guard, was still there, and he remembered and welcomed me.

"Me ordhers wuz t' let yez roight in, sor," he said as he greeted me. "Jist lave ye'er bag here and Oi'll have ut sint roight up."

I dropped my bag and trudged up the well remembered path to the laboratory. It had been enlarged somewhat since I saw it last and, late though the hour was, there was a bustle in the air and I could see a number of men working in the building. From an area in the rear, which was lighted by huge flood lights, came the staccato tattoo of a riveter. I walked up to the front of the laboratory and entered. I knew the way to Carpenter's office and I went directly there and knocked.

"Hello, First Mortgage!" cried Jim Carpenter as I entered in response to his call. "I'm glad to see you. Excuse the bruskness of my first greeting to you over the telephone, but the press have been deviling me all day, every man jack of them trying to steal a march on the rest. I am going to open the whole shebang at nine to-morrow and give them all an equal chance to look things over before I turn the current on at noon. As soon as we have a little chat, I'll show you over the works."

After half an hour's chat he rose. "Come along, First Mortgage," he said, "we'll go out and look the place over and I'll explain everything. If my ideas work out, you'll have no chance to go over it to-morrow, so I want you to see it now."

I had no chance to ask him what he meant by this remark, for he walked rapidly from the laboratory and I perforce followed him. He led the way to the patch of lighted ground behind the building where the riveting machine was still beating out its monotonous cacaphony and paused by the first of a series of huge reflectors, which were arranged in a circle.

"Here is the start of the thing," he said. "There are two hundred and fifty of these reflectors arranged in a circle four hundred yards in diameter. Each of them is an

opened parabola of such spread that their beams will cover an area ten yards in diameter at fifty miles above the earth. If my calculations are correct they should penetrate through the layer at an average speed of fifteen miles per hour per unit, and by two o'clock to-morrow afternoon, the road to space should be open."

"What is your power?" I asked.

"Nothing but a concentration of infra-red rays. The heaviside layer, as you doubtless know, is a liquid and, I think, an organic liquid. If I am right in that thought, the infra-red will cut through it like a knife through cheese."

"If it is a liquid, how will you prevent it from flowing back into the hole you have opened?" I asked.

"When the current is first turned on, each reflector will bear on the same point. Notice that they are moveable. They are arranged so that they move together. As soon as the first hole is bored through, they will move by clockwork, extending the opening until each points vertically upward and the hole is four hundred yards in diameter. I am positive that there will be no rapid flow even after the current is turned off, for I believe that the liquid is about as mobile as petroleum jelley. Should it close, however, it would take only a couple of hours to open it again to allow the space flyer to return."

"What space flyer?" I demanded quickly.

"The one we are going to be on, First Mortgage," he replied with a slight chuckle.

We?" I cried, aghast.

"Certainly. We. You and I. You didn't think I was going to send you alone, did you?"

"I didn't know that anyone was going."

"Of course. Someone has to go; otherwise, how could I prove my point? I might cut through a hundred holes and yet these stiff-necked old fossils, seeing nothing, would not believe. No, First Mortgage, when those arcs start working to-morrow, you and I will be in a Hadley space ship up at the bottom of the layer, and as soon as the road has been opened, two of the lamps will cut off to allow us through. Then the battery will hold the road open while we pass out into space and return."

"Suppose we meet with Hadley's fate?" I demanded.

"We won't. Even if I am wrong—which is very unlikely—we won't meet with any such fate. We have two stern motors and four bow motors. As soon as we meet with the slightest resistance to our forward progress we will stop and have twice the power

plus gravity to send us earthwards. There is no danger connected with the trip."

"All the same—" I began.

"All the same, you're going," he replied. "Man alive, think of the chance to make a world scoop for your paper! No other press man has the slightest inkling of my plan and even if they had, there isn't another space flyer in the world that I know of. If you don't want to go, I'll give some one else the chance, but I prefer you, for you know something of my work."

I thought rapidly for a moment. The chance was a unique one and one that half the press men in San Francisco would have given their shirts to get. I had had my doubts of the accuracy of Jim Carpenter's reasoning while I was away from him, but there was no resisting the dynamic personality of the man when in his presence.

"You win," I said with a laugh. "Your threat of offering some of my hated rivals a chance settled it."

"Good boy!" he exclaimed, pounding me on the back. "I knew you'd come. I had intended to take one of my assistants with me, but as soon as I knew you were here I decided that you were the man. There really ought to be a press representative along. Come with me and I'll show you our flyer."

The flyer proved to be of the same general type as had been used by Hadley. It was equipped with six rocket motors, four discharging to the bow and two to the stern. Any one of them, Carpenter said, was ample for motive power. Equilibrium was maintained by means of a heavy gyroscope which would prevent any turning of the axis of its rotation. The entire flyer shell could be revolved about the axis so that oblique motion with our bow and stern motors was readily possible. Direct lateral movement was provided for by valves which would divert a portion of the discharge of either a bow or stern motor out through side vents in any direction. The motive power, of course, was furnished by the atomic disintegration of powdered aluminum. The whole interior, except for the portion of the walls, roof and floor, which was taken up by vitriolene windows, was heavily padded.

At nine the next morning the gates to the enclosure were thrown open and the representatives of the press admitted. Jim Carpenter mounted a platform and explained briefly what he proposed to do and then broke the crowd up into small groups and sent them over the works with guides. When all had been taken around they were reassembled and Carpenter announced to them his intention of going up in a space flyer and prove, by going through the heaviside layer, that he had actually destroyed a portion of it. There was an immediate clamor of applications to go with him. He laughingly announced that one reporter was all that he could stand on the ship and that he was taking one of his former associates with him. I could tell by the

envious looks with which I was favored that any popularity I had ever had among my associates was gone forever. There was little time to think of such things, however, for the hour for our departure was approaching, and the photographers were clamoring for pictures of us and the flyer.

We satisfied them at last, and I entered the flyer after Carpenter. We sealed the car up, started the air conditioner, and were ready for departure.

"Scared, Pete?" asked Carpenter, his hand on the starting lever.

I gulped a little as I looked at him. He was perfectly calm to a casual inspection, but I knew him well enough to interpret the small spots of red which appeared on his high cheekbones and the glitter in his eye. He may not have been as frightened as I was but he was laboring under an enormous nervous strain. The mere fact that he called me "Pete" instead of his usual "First Mortgage" showed that he was feeling pretty serious.

"Not exactly scared," I replied, "but rather uneasy, so to speak."

He laughed nervously.

"Cheer up, old man! If anything goes wrong, we won't know it. Sit down and get comfortable; this thing will start with a jerk."

He pulled the starting lever forward suddenly and I felt as though an intolerable weight were pressed against me, glueing me to my seat. The feeling lasted only for a moment, for he quickly eased up on the motor, and in a few moments I felt quite normal.

"How fast are we going?" I asked.

"Only two hundred miles an hour," he replied. "We will reach the layer in plenty of time at this rate and I don't want to jam into it. You can get up now."

I rose, moved over to the observation glass in the floor, and looked down. We were already five or ten miles above the earth and were ascending rapidly. I could still detect the great circle of reflectors with which our way was to be opened.

"How can you tell where these heat beams are when they are turned on?" I asked. "Infra-red rays are not visible, and we will soon be out of sight of the reflectors."

"I forgot to mention that I am having a small portion of visible red rays mixed with the infra-red so that we can spot them. I have a radio telephone here, working on my private wavelength, so that I can direct operations from here as well as from the ground—in fact, better. If you're cold, turn on the heater."

The friction of the flyer against the air had so far made up for the decreasing temperature of the air surrounding us, but a glance at the outside thermometer warned me that his suggestion was a wise one. I turned a valve which diverted a small portion of our exhaust through a heating coil in the flyer. It was hard to realize that I was actually in a rocket space ship, the second one to be flown and that, with the exception of the ill-fated Hadley, farther from the earth than any man had been before. There was no sensation of movement in that hermetically sealed flyer, and, after the first few moments, the steady drone of the rocket motor failed to register on my senses. I was surprised to see that there was no trail of detritus behind us.

"You can see our trail at night," replied Carpenter when I asked him about it, "but in daylight, there is nothing to see. The slight luminosity of the gasses is hidden by the sun's rays. We may be able to see it when we get out in space beyond the layer, but I don't know. We have arrived at the bottom of the layer now, I believe. At any rate, we are losing velocity."

I moved over to the instrument board and looked. Our speed had dropped to one hundred and ten miles an hour and was steadily falling off. Carpenter pulled the control lever and reduced our power. Gradually the flyer came to a stop and hung poised in space. He shut off the power an instant and at once our indicator showed that we were falling, although very slowly. He promptly reapplied the power, and by careful adjustment brought us again to a dead stop.

"Ready to go," he remarked looking at his watch, "and just on time, too. Take a glass and watch the ground. I am going to have the heat turned on."

I took the binoculars he indicated and turned them toward the ground while he gave a few crisp orders into his telephone. Presently from the ground beneath us burst out a circle of red dots from which long beams stabbed up into the heavens. The beams converged as they mounted until at a point slightly below us, and a half-mile away they became one solid beam of red. One peculiarity I noticed was that, while they were plainly visible near the ground, they faded out, and it was not until they were a few miles below us that they again became apparent. I followed their path upward into the heavens.

"Look here, Jim!" I cried as I did so. "Something's happening!"

He sprang to my side and glanced at the beam.

"Hurrah!" he shouted, pounding me on the back. "I was right! Look! And the fools called it a magnetic field!"

Upward the beam was boring its way, but it was almost concealed by a rain of fine

particles of black which were falling around it.

"It's even more spectacular than I had hoped," he chortled. "I had expected to reduce the layer to such fluidity that we could penetrate it or even to vaporize it, but we are actually destroying it! That stuff is soot and is proof, if proof be needed, that the layer is an organic liquid."

He turned to his telephone and communicated the momentous news to the earth and then rejoined me at the window. For ten minutes we watched and a slight diminution of the black cloud became apparent.

"They're through the layer," exclaimed Carpenter. "Now watch, and you'll see something. I'm going to start spreading the beam."

He turned again to his telephone, and presently the beam began to widen and spread out. As it did so the dark cloud became more dense than it had been before. The earth below us was hidden and we could see the red only as a dim murky glow through the falling soot. Carpenter inquired of the laboratory and found that we were completely invisible to the ground, half the heavens being hidden by the black pall. For an hour the beam worked its way toward us.

"The hole is about four hundred yards in diameter right now," said Carpenter as he turned from the telephone. "I have told them to stop the movement of the reflectors, and as soon as the air clears a little, we'll start through."

It took another hour for the soot to clear enough that we could plainly detect the ring of red light before us. Carpenter gave some orders to the ground, and a gap thirty yards wide opened in the wall before us. Toward this gap the flyer moved slowly under the side thrust of the diverted motor discharge. The temperature rose rapidly as we neared the wall of red light before us. Nearer we drew until the light was on both sides of us. Another few feet and the flyer shot forward with a jerk that threw me sprawling on the floor. Carpenter fell too, but he maintained his hold on the controls and tore at them desperately to check us.

I scrambled to my feet and watched. The red wall was alarmingly close. Nearer we drove and then came another jerk which threw me sprawling again. The wall retreated. In another moment we were standing still, with the red all around us at a distance of about two hundred yards.

"We had a narrow escape from being cremated," said Carpenter with a shaky laugh. "I knew that our speed would increase as soon as we got clear of the layer but it caught me by surprise just the same. I had no idea how great the holding effect of the stuff was. Well, First Mortgage, the road to space is open for us. May I invite you to be my guest on a little week-end jaunt to the Moon?"

"No thanks, Jim," I said with a wry smile. "I think a little trip to the edge of the layer will quite satisfy me."

"Quitter," he laughed. "Well, say good-by to familiar things. Here we go!"

He turned to the controls of the flyer, and presently we were moving again, this time directly away from the earth. There was no jerk at starting this time, merely a feeling as though the floor were pressing against my feet, a great deal like the feeling a person gets when they rise rapidly in an express elevator. The indicator showed that we were traveling only sixty miles an hour. For half an hour we continued monotonously on our way with nothing to divert us. Carpenter yawned.

"Now that it's all over, I feel let down and sleepy," he announced. "We are well beyond the point to which Hadley penetrated and so far we have met with no resistance. We are probably nearly at the outer edge of the layer. I think I'll shoot up a few miles more and then call it a day and go home. We are about eighty miles from the earth now."

I looked down, but could see nothing below us but the dense cloud of black soot resulting from the destruction of the heaviside layer. Like Carpenter, I felt sleepy, and I suppressed a yawn as I turned again to the window.

"Look here, Jim!" I cried suddenly. "What's that?"

He moved in a leisurely manner to my side and looked out. As he did so I felt his hand tighten on my shoulder with a desperate grip. Down the wall of red which surrounded us was coming an object of some kind. The thing was fully seventy-five yards long and half as wide at its main portion, while long irregular streams extended for a hundred yards on each side of it. There seemed to be dozens of them.

"What is it, Jim?" I asked in a voice which sounded high and unnatural to me.

"I don't know," he muttered, half to me and half to himself. "Good Lord, there's another of them!"

He pointed. Not far from the first of the things came another, even larger than the first. They were moving sluggishly along the red light, seeming to flow rather than to crawl. I had a horrible feeling that they were alive and malignant. Carpenter stepped back to the controls of the flyer and stopped our movement; we hung in space, watching them. The things were almost level with us, but their sluggish movement was downward toward the earth. In color, they were a brilliant crimson, deepening into purple near the center. Just as the first of them came opposite us it paused, and slowly a portion of the mass extended itself from the main bulk; and then, like doors opening,

four huge eyes, each of them twenty feet in diameter, opened and stared at us.

"It's alive, Jim," I quavered. I hardly knew my own voice as I spoke.

Jim stepped back to the controls with a white face, and slowly we moved closer to the mass. As we approached I thought that I could detect a fleeting passage of expression in those huge eyes. Then they disappeared and only a huge crimson and purple blob lay before us. Jim moved the controls again and the flyer came to a stop.

Two long streamers moved out from the mass. Suddenly there was a jerk to the ship which threw us both to the floor. It started upward at express train speed. Jim staggered to his feet, grasped the controls and started all four bow motors at full capacity, but even this enormous force had not the slightest effect in diminishing our speed.

"Well, the thing's got us, whatever it is," said Jim as he pulled his controls to neutral, shutting off all power. Now that the danger had assumed a tangible form, he appeared as cool and collected as ever, to my surprise, I found that I had recovered control of my muscle and of my voice. I became aware that the shoulder which Jim had gripped was aching badly, and I rubbed it absently.

"What is it, Jim?" I asked for the third time.

"I don't know," he replied. "It is some horrible inhabitant of space, something unknown to us on earth. From its appearance and actions, I think it must be a huge single-celled animal of the type of the earthly amoeba. If an amoeba is that large here, what must an elephant look like? However, I expect that we'll learn more about the matter later because it's taking us with it, wherever it's going."

Suddenly the flyer became dark inside. I looked at the nearest window, but I could not even detect its outline. I reached for the light switch, but a sudden change in direction threw me against the wall. There was an instant of intense heat in the flyer.

"We have passed the heaviside layer," said Jim. "The brute has changed direction, and we felt that heat when he took us through the infra-red wall."

I reached again for the light switch, but before I could find it our motion ceased and an instant later the flyer was filled with glaring sunlight. We both turned to the window.

We lay on a glistening plain of bluish hue which stretched without a break as far as we could see. Not a thing broke the monotony of our vision. We turned to the opposite window. How can I describe the sight which met our horrified gaze? On the plain before us lay a huge purple monstrosity of gargantuan dimensions. The thing was a shapeless mass, only the four huge eyes standing out regarding us balefully. The mass

was continually changing its outline and, as we watched, a long streamer extended itself from the body toward us. Over and around the flyer the feeler went, while green and red colors played over first one and then another of the huge eyes before us. The feeler wrapped itself around the flyer and we were lifted into the air toward those horrible eyes. We had almost reached them when the thing dropped us. We fell to the plain with a crash. We staggered to our feet again and looked out. Our captor was battling for its life.

Its attacker was a smaller thing of a brilliant green hue, striped and mottled with blue and yellow. While our captor was almost formless, the newcomer had a very definite shape. It resembled a cross between a bird and a lizard, its shape resembling a bird, as did tiny rudimentary wings and a long beak, while the scaly covering and the fact that it had four legs instead of two bore out the idea that it might be a lizard. Its huge birdlike beak was armed with three rows of long sharp teeth with which it was tearing at our captor. The purple amoeba was holding its assailant with a dozen of its thrown out feelers which were wrapped about the body and legs of the green horror. The whole battle was conducted in absolute silence.

"Now's our chance, Jim!" I cried. "Get away from here while that dragon has the amoeba busy!"

He jumped to the control levers of the flyer and pulled the starting switch well forward. The shock of the sudden start hurled me to the floor, but from where I fell I was able to watch the battle on the plain below us. It raged with uninterrupted fury and I felt certain of our escape when, with a shock which hurled both Jim and me to the ceiling, the flyer stopped. We fell back to the floor and I reflected that it was well for us that the interior of the flyer was so well padded. Had it not been, our bones would have been broken a dozen times by the shocks to which we had been subjected.

"What now?" I asked as I painfully struggled to my feet.

"Another of those purple amoebas," replied Jim from the vantage point of a window. "He's looking us over as if he were trying to decide whether we are edible or not."

I joined him at the window. The thing which had us was a replica of the monster we had left below us engaged in battle with the green dragon which had attacked it. The same indefinite and ever changing outline was evident, as well as the four huge eyes. The thing regarded us for a moment and slowly moved us up against its bulk until we touched it. Deeper and deeper into the mass of the body we penetrated until we were in a deep cavern with the light coming to us only from the entrance. I watched the entrance and horror possessed my soul.

"The hole's closing. Jim!" I gasped. "The thing is swallowing us!"

"I expected that," he replied grimly. "The amoeba has no mouth, you know. Nourishment is passed into the body through the skin, which closes behind it. We are a modern version of Jonah and the whale, First Mortgage."

"Well, Jonah got out," I ventured.

"We'll try to," he replied. "When that critter swallowed us, he got something that will prove pretty indigestible. Let's try to give him a stomach ache. I don't suppose that a machine-gun will affect him, but we'll try it."

"I didn't know that you had any guns on board."

"Oh yes, I've got two machine-guns. We'll turn one of them loose, but I don't expect much effect from it."

He moved over to one of the guns and threw off the cover which had hidden it from my gaze. He fed in a belt of ammunition and pulled his trigger. For half a minute he held it down, and two hundred and fifty caliber thirty bullets tore their way into space. There was no evidence of movement on the part of our host.

"Just as I thought," remarked Jim as he threw aside the empty belt and covered the gun again. "The thing has no nervous organization to speak of and probably never felt that. We'll have to rig up a disintegrating ray for him."

"What?" I gasped.

"A disintegrating ray," he replied. "Oh yes, I know how to make the fabulous 'death ray' that you journalists are always raving about. I have never announced my discovery, for war is horrible enough without it, but I have generated it and used it in my work a number of times. Did it never occur to you that the rocket motor is built on a disintegrating ray principle?"

"Of course it is, Jim. I never thought of it in that light before, but it must be. How can you use it? The discharge from the motors is a harmless stream of energy particles."

"Instead of turning the ray into powdered aluminum and breaking it down, what is to prevent me from turning it against the body of our captor and blasting my way out?"

"I don't know."

"Well, nothing is. I'll have to modify one of the motors a little, but it's not a hard job. Get some wrenches from the tool box and we'll start."

An hour of hard work enabled us to disconnect one of the reserve bow motors and,

after the modifications Jim had mentioned, turn the ray out through the port through which the products of disintegration were meant to go. When we had bolted it in place with an improvised coupling, Jim opened the vitriolene screen which held in our air and turned to his control board.

"Here goes," he said.

He pulled the lever to full power and with a roar which almost deafened us in the small flyer, the ray leaped out to do its deadly work. I watched through a port beside the motor. There was a flash of intense light for an instant and then the motor died away in silence. A path to freedom lay open before us. Jim started one of the stern motors and slowly we forced our way through the hole torn in the living mass. When we were almost at the surface, he threw in full power and we shot free from the amoeba and into the open. Again we were stopped in midair and drawn back toward the huge bulk. The eyes looked at us and we were turned around. As the ray swung into a position to point directly toward one of the eyes, Jim pulled the controlling lever. With the flash of light which ensued, the eye and a portion of the surrounding tissue disappeared. The amoeba writhed and changed shape rapidly, while flashes of brilliant crimson played over the remaining eyes. Again the ray was brought into play and another of the eyes disappeared. This was evidently enough for our captor, for it suddenly released us and instantly we started to fall. Jim caught the control levers and turned on our power in time to halt us only a few feet above the plain toward which we were falling. We were close to the point whence we had started up and we could see that the battle below us was still raging.

The green dragon was partially engulfed by the amoeba, but it still relentlessly tore off huge chunks and devoured them. The amoeba was greatly reduced in bulk but it still fought gamely. Even as we approached the dragon was evidently satiated, for it slowly withdrew from the purple bulk and back away. Long feelers shot out from the amoeba's bulk toward the dragon but they were bitten off before they could grasp their prey.

"Let's get away from here, Jim," I cried, but I spoke too late. Even as the words left my mouth the green dragon saw us and raised itself in the air, and with gaping jaws launched itself at us. It took Jim only a moment to shoot the flyer up into space, and the charge passed harmlessly beneath us. The dragon checked its headway and turned again toward us.

"Use the machine-gun, Pete!" cried Jim. "I've got to run the ship."

I threw the cover off the gun and fed in a fresh belt of ammunition. As the green monster dashed toward us I hastily aligned the gun and pulled the trigger. My aim was good and at least fifty of the bullets plowed through the approaching bulk before Jim dropped the ship and allowed it to pass above us. Again the dragon turned and

charged, and again I met it with a hail of bullets. They had no apparent effect and Jim dropped the ship again and let the huge bulk shoot by above us. Twice more the dragon rushed but the last rush was less violent than had been the first three.

"The bullets are affecting him, Pete!" cried Jim as he shot the flyer upward. "Give him another dose!"

I hastily fed in another belt, but it was not needed. The dragon rushed the fifth time, but before it reached us its velocity fell off and it passed harmlessly below us and fell on a long curve to the plain below. It fell near the purple amoeba which it had battled and a long feeler shot out and grasped it. Straight into the purple mass it was drawn, and vanished into the huge bulk.

Jim started one of the stern motors. In a few seconds we were far from the scene.

"Have you any idea of which direction to go?" he asked. I shook my head.

"Have you a radio beacon?" I asked.

He withered me with a glance.

"We're beyond the heaviside layer," he reminded me.

For a moment I was stunned.

"We can't be very far from the hole," he said consolingly as he fumbled with the controls. "But before we try to find it, we had better disconnect one of the stern motors and rig it as a disintegrating ray so that we will have one bearing in each direction. We may meet more denizens of space who like our looks, and we haven't much ammunition left."

We landed on the plain and in an hour had a second disintegrating ray ready for action. Thus armed, we rose from the blue plain and started at random on our way. For ten minutes we went forward. Then Jim stopped the flyer and turned back. We had gone only a short distance when I called to him to stop.

"What is it?" he demanded as he brought the flyer to a standstill.

"There's another creature ahead of us," I replied. "A red one."

"Red?" he asked excitedly as he joined me. About a mile ahead of us a huge mass hung in the air. It resembled the amoeba which had attacked us, except that the newcomer was red. As we watched, it moved toward us. As it did so its color changed to purple.

"Hurrah!" cried Jim. "Don't you remember, Pete, that the one which captured us and took us out of the hole was red while in the hole and then turned purple? That thing just came out of the hole!"

"Then why can't we see the red beam?" I demanded.

"Because there's no air or anything to reflect it," he replied. "We can't see it until we are right in it."

I devoutly hoped that he was right as he headed the ship toward the waiting monster. As we approached the amoeba came rapidly to meet us and a long feeler shot out. As it did so there was a flash of intense light ahead of us as Jim turned loose the ray, and the feeler disappeared. Another and another met the same fate. Then Jim rotated the ship slightly and let out the full force of the ray toward the monster. A huge hole was torn in it, and as we approached with our ray blazing, the amoeba slowly retreated and our path was open before us. Again there was an instant of intense heat as we passed through the red wall, and we were again in the hole which Jim's lamps had blasted through the layer. Below us still lay the fog which had obscured the earth when we had started on our upward trip.

Down toward the distant earth we dropped. We had gone about thirty miles before we saw on the side of the hole one of the huge amoeba which were so thick above.

"We might stop and pick that fellow off," said Jim, "but, on the whole, I think we'll experiment with him."

He drove the ship nearer and turned it on its axis, holding it in position by one of the auxiliary discharges. A flash came from our forward ray and a portion of the amoeba disappeared. A long arm moved out toward us, but it moved slowly and sluggishly instead of with the lightninglike swiftness which had characterized the movements of the others. Jimmy easily eluded it and dropped the ship a few yards. The creature pursued it, but it moved slowly. For a mile we kept our distance ahead of it, but we had to constantly decrease our speed to keep from leaving it behind. Soon we were almost at a standstill, and Jim reversed our direction and drew nearer. A feeler came slowly and feebly out a few feet toward us and then stopped. We dropped the ship a few feet but the amoeba did not follow. Jim glanced at the altimeter.

"Just as I thought," he exclaimed. "We are about forty-five miles above the earth and already the air is so dense that the thing cannot move lower. They are fashioned for existence in the regions of space and in even the most rarified air they are helpless. There is no chance of one ever reaching the surface of the earth without years of gradual acclimation, and even if it did, it would be practically immobile. In a few years the layer will flow enough to plug the hole I have made, but even so, I'll build a couple of space flyers equipped with disintegrating rays as soon as we get down and station

them alongside the hole to wipe out any of that space vermin which tries to come through. Let's go home. We've put in a good day's work."

Hundreds of the purple amoeba have been destroyed by the guarding ships during the past five years. The hole is filling in as Jim predicted, and in another ten years the earth will be as securely walled in as it ever was. But in the mean time, no one knows what unrevealed horrors space holds, and the world will never rest entirely easy until the slow process of time again heals the broken protective layer.