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A Complete Novel



Against the Fall of Night

By **ARTHUR C. CLARKE**

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CHAPTER I

Back Through the Past

THE

THE three men had a portentous air, as though they faced a decision of great importance. The tallest of them was obviously uneasy.

"But the dogs died, you know," he objected suddenly.

Outside the countryside was shrouded in thick fog, through which the peculiar whistle of the twenty-second century air-trains, following invisible lines of Y-rays, came faintly to the ear. Inside the laboratory, concealed lights, reflected from the smooth metal of the

BY FESTUS PRAGNELL

*Through a miraculous twenty-second century experiment,
a young man traces his origins back to a pre-terran world!*



ISOTOPE MEN

ceiling, gave a perfect imitation of diffused daylight.

A man of a former age might have taken these men to be three very masculine women. They were enveloped, except for their heads, hands and feet, in one-piece overalls. Their

cheeks were innocent of any trace of hair. The hormone that sets the beard growing at puberty had been neutralized in their blood in accordance with the universal custom. Thus had the male sex freed itself of the daily trouble and pain of shaving.

The youngest man, an athletic young fellow of twenty-four, laughed and slapped the tall one on the back. "You seem nervous, Armstrong," he said. "I know the dogs died when we tried the machine on them, but still, I may not. A human being has a stronger brain than a dog has.

"I am confident that I can go under the nerve-stilling machine, practically to a stage of death, and still find the power to recover. If I do not, well, there have been many martyrs to science for less important causes than ours."

"You have the right spirit, my son," said the middle-aged, thick-set man whose overalls were very badly soiled. "There is a racial mind, of that I am confident—and when your brain has been deprived of nearly all outside stimulation, the contents of the racial mind will come to the top.

"How do the birds know when and where to migrate or how to build nests, if they have not inherited memories subconsciously guiding them? Why do we fear certain things instinctively?"

"Though I admit feeling that I would rather some one else faced the danger, Christopher, yet we must have a competent, scientific witness, one who has the interests of my investigation at heart. If you are ready, step into the chair and I will commence dulling your conscious mind so that the subconscious can take its place."

It was with more trepidation than he cared to admit that Christopher sat in the chair with the nerve-soothing machine at its back and, while his father adjusted the leather cap over his head, took what might be his last look round the laboratory.

His father's theory was that experience is never lost, but that the memories of all our ancestors are stored in our brains if we can but find them. Instinct, which plays a much more important part than reason in our lives, according to the scientist, was but the sum of these racial memories.

A pad was adjusted to Christopher's neck and, as the combined magnetic field and low temperature began to impede and soften the electro-chemical impulses passing along the microscopic nerve-fibers of his spine, his body seemed to grow cold and distant. More pads were placed at his temples to affect his optic nerves and all became dark. Other pads were placed over his ears and nose. Only the sense of taste remained.

"He's off all right," muttered Armstrong.

"Yes," said the father, "if all is as I hope and believe, the individual, Christopher Barlem, is for a while dead. Only that part of his mind survives that is the common property of the race. He may be living through my life as it was before I begot him or he may be gazing upon scenes our ancestors saw hundreds of thousands of years ago."

NOW the young man's features assumed a rigid immobility. Barlem altered the adjustments. A slight pucker appeared between the recumbent man's eyebrows and he shivered. To Armstrong it seemed like producing movements in a corpse and he wished he had not agreed to the experiment.

"But," he objected, "if we have stopped the sensory impulses going to the brain, haven't we also checked the motor impulses coming from it? Perhaps we have interfered too rapidly with those that prevent the heart beating."

"I think we have," said the father, "the pulse is very rapid."

A change was coming over the face of the sleeper, a look of horror gradually taking possession of it as though he gazed upon scenes of unimaginable terror. That look became fixed as though Christopher had died in a state of great fear.

For almost an hour they watched, lifting a heavy, helpless arm from time to time to feel the pulse.

"Quick!" cried Armstrong, suddenly. "The breath has almost stopped."

Barlem snapped off the switch. Very pale, he felt the pulse again. There was only a faint movement. "I was not expecting such a sudden breakdown," he muttered. "Help me carry him."

Together they lifted the body and carried it to a couch where a machine applied artificial respiration. They administered oxygen, adrenalin and other stimulants.

A nervous stimulus, applied to the brain, produced a quiver of an eyelid. "Only a matter of time," announced the father, with a sigh of relief.

At last the body was freed from its encumbrances and the eyes opened, staring blankly about. It was not Christopher Barlem that looked at them but some uncivilized ancestor.

"Look out!" called the father but too late for the young man sprang straight at Armstrong's throat. Barlem wrenched his son away and secured him to the couch once

more—but not before the beryllium-copper-steel of twenty-second-century dentistry had extensively lacerated Armstrong's neck.

"His conscious mind is not yet in control," explained Barlem, watching the frantic struggles of his son. "Do you notice," he asked, "how the left arm hangs idle? The nerves of that arm are dead."

"Will it recover?"

"I think so. The healthy nerves will grow again in the sheaths of the dead fibers, like a plant sending out new roots. We will keep the muscles strong by electrical treatment and, in time, the limb will be as sound as ever. Help me get his overalls off and put him to bed. Tomorrow, if he is strong enough, we shall hear what he has to say of his sojourn in the past."

However, a week passed before the patient had sufficiently recovered and the two men met at his bedside.

The room was a large one with wide open windows looking out on grass terraces, pools with fountains and lines of trees stretching away to the horizon. Occasionally a bee buzzed in enquiringly. Christopher sat propped up in bed, rather pale and thin and bearing one arm in a sling.

* * *

My first sensations while under the influence of the ray were the gradual dimming of the light, the fading away of sounds, the sense of receding to an infinite distance. A wave of undreamed-of comfort filled the universe. All necessity for effort, the struggle and striving that are life, was gone. The distant beating of my heart was like the thumping of a powerful machine to which I listened without interest.

All this was usual, but then came, through this sea of ease that was akin to death, a disturbing influence, a throb of emotion, a pulse of indefinable fear. All will was gone, fear filled my mind, meeting no resistance. Fear, and fear alone, existed.

It was the bed-rock of existence, that ultimate terror of dissolution that never leaves us—that provides the motive force of life—the power that keeps us striving to live through the greatest pain, illness or despair—the spur that never ceases its driving while life beats in our bodies. I was experiencing it now in its final simplicity, an awful force racking my mind, agonizing because of my inability to make any response.



FAME and is reprinted here.

SOME stories are forgotten almost as soon as they are printed. Others stand the test of time.

Because "The Isotope Men" by Festus Pragnell has stood this test, it has been nominated for SCIENTIFUNCTION'S HALL OF

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IT CAME in throbs, stronger and stronger. At first it was formless, then it began to assume definite shapes, to become terror of this or of that. Fear of destruction merged inextricably into terror of the unknown, into fear of new experiences. At the same time I seemed to possess many different personalities, to pass from being one person to being another.

One moment I was a savage crouching in a jungle at night, possessed with terror compounded of fear of wild beasts and of imagined things of the dark. The next, I was a girl trembling at the dawning prospect of womanhood. Then I was a savage child in a tree and the space below was like a maw waiting to devour me.

I shared the thoughts of these and many more and the feelings of all were the same—a terror of dissolution, a terror of the unknown, a passionate desire to live and to propagate life. Such is the mental motive power constantly maintained by the racial mind, much in the same way as the heart pumps blood through the body.

My mind flitted from individual to individual like a butterfly from flower to flower. As I lighted on each person I passed his early life in instantaneous comprehensive review, thought the thoughts and felt the feelings of that individual, was that individual, for an indefinable space of time. It was like living a multitude of lives in a series of vivid flashes—and all the time it was nothing but a collection of extremely detailed memories.

None of them had any beginning or end

for, of course, none of us is conscious of any beginning to his life or can transmit a memory of death. I was a priest in a temple and fled thence with a woman. I was a worshipper in that same temple and helped to hunt and to slay that same priest. I fled from cave-bears. I hunted sabre-toothed tigers. I was a soldier in Nebuchadnezzar's army.

I was a scientist with knowledge far surpassing what I possess in this life. I traveled in antiquated airships and submarines. I knew the secret of atomic power; I, yes—I, traveled in space-ships. Whether my visions all related to the past or whether some of them belonged to the future, the fact remains that I traveled in space-ships.

It was like a series of illuminated pictures, some bright, some faint. Where the intelligence of the subject was strongest, there I had the clearest, most detailed stories. Where it was weak there was little more than a welter of emotions. And, oddly enough, the lives of some obscure men and women were clearer than those of brilliant scientists and authors, while many kings and queens made hardly any impression on the stream.

Clear above them all stands out the story of a simple boy. It has made this lasting impression, I think, because of the vividness of his perceptions and because of the frightful cataclysm through which he lived while still of an impressionable age.

That boy, although I did not realize it until a little while ago, did not live on Earth, but on another planet. This planet was farther from the sun than we are and its nearest neighbors in space, apart from its only satellite, were Jupiter and Mars.

It was a peaceful, pleasant world, or so it seemed to a child, and was the only inhabited planet in the Solar System—inhabited, that is to say, by humanity. On earth Mankind had not yet risen to challenge the sovereignty of the beasts.

He or I (for he seemed to be myself) had no brothers or sisters, but lived with my father. I remember very little of my mother. She died when I was very young. We had easy lives, for nearly all necessity for work had been banished by scientists of bygone ages.

Little remained of that science now for, having solved nearly all human problems, it had fallen into disuse. There was a library containing the knowledge of the ancients, but none now ever passed the electronic dust-

barriers at the doors or threaded the coils of profound wisdom through the idle reading machines.

What education there was was conducted by tutors. Myself and eleven companions of both sexes were in the care of one of these, Parmel, a gentle, white-haired man who spent most of his time playing games with us.

CHAPTER II

Parmel's Secret

OUR years were very long, but I think I was of an age corresponding to about seventeen Earth years on the day when I approached Parmel, as he sat half asleep in the garden. I began to ask him questions, for my mind was full of curiosity.

It was a perfect day, warm and bright, with small white clouds floating leisurely across the sky. But so accustomed were we to perfect weather in a world where the winds and temperature were controlled by humanity that we did not notice its beauty. The sun shone, but it was not a conspicuous object among the half-dozen artificial suns that competed with it—mechanical bodies that patiently provided us with light and heat and seldom required attention.

Parmel sat among clumps of tall feathery grasses on an upholstered garden seat equipped with a rock shelter under which it slid automatically, out of the dew and showers of the night. Before him was a shallow pool in which little creatures rather like frogs were jumping and swimming about.

"They tell me, Parmel," I began, sitting beside him, "that when I want to know anything I should ask you."

"That is so, Hasteen," he replied, turning his grave, gray eyes on me, "what does my little one wish to know?"

"A few days ago my father took me on a visit to my uncle who lives in the North, and we went to a big building where there was a machine they called a telescope. Looking into the eyepiece of this machine, I saw a rough grey ball with black markings.

"The masterpiece of our ancestors," said the attendant, "the sphere that provides our heat, light and power and has made life so easy for us."

"Terrible! I heard father say as he looked at it. What did he mean?"

Parmel looked troubled. "Do not inquire into such things, little one," he said, stroking my hair. "It is not good to be so curious. Let us play with the ball machine."

I pouted. "But Daddy told me to ask you. He said you would tell me!"

He sighed. "Well, if you must know, you shall. See all those little suns sprinkled about the sky, providing us with light and warmth? They were made by men long ages ago. The Moon, which you saw, sends down the power which is transmitted to the little suns and turned by them into light and heat. Now let us play."

I would not play but pondered this explanation in silence.

"But if the moon is cold and dark, as I saw it, how can it send down heat and light?"

"Never did I know a child with so much curiosity," exclaimed Parmel with another sigh. "But that strange man, your father, says your questions are to be answered and answered they shall be and truthfully. The power from the moon is atomic power. Wait one moment." He went into the house, to return carrying a green metal box by its handle.

"This, Hasteen, is the heater that keeps up the hot water supply in my home."

He carried it to a small statue, where he plugged it into two holes cunningly hidden in the mouth of a sculptured fish at the base.

"It is a machine for obtaining atomic power," he exclaimed, removing the case.

I looked at it. It seemed to me merely a device for creating a field of electromagnetic tension between two brass plates. There was nothing for the energy to act on.

"Put your hand into the cup in the middle of it—it is quite cold—and see what you find."

I did so and drew out a small disc of lead, which I examined and returned. Parmel threw the switch, first warning me not to touch the uncovered machine. The leaden disc jumped up to occupy a spot exactly central between the brass plates. Almost immediately it changed into a round ball of suspended molten metal whose heat I could feel on my face and hands. It began to glow dull red, then bright, until it was a ball of intense white fire at which I could not look.

P ARMEL switched it off. "These unshielded rays are highly dangerous," he

explained, "therefore I stopped the process before the lead had really begun to warm up. That ball will emit heat and light a hundred times as intense as that and continue to do so for years.

"An atom consists of protons and electrons, the protons being units of positive electricity while the electrons are units of negative electricity. All the protons and some of the electrons are contained in the central nucleus of the atom, while the remaining electrons circle round this nucleus much in the same way as the planets travel round the sun.

"Now the electrons are not restricted to one fixed orbit, but each electron has a limited number of definite orbits which it may occupy and it may jump from one to another. When it jumps outwards it absorbs a quantum of energy. When it jumps towards the nucleus it emits an equivalent quantum of energy.

"Many thousands of years ago, when science was at the apex of its power, men discovered the way to release this energy of the atom. An intense magnetic field caused the electrons to drop into smaller orbits, even into the nucleus itself. That was what made that leaden ball so hot.

"Now, when an electron thus fell into the nucleus, the atom changed and became an atom of another element. Three such changes turned lead, which has eighty two planetary electrons, into thalium, which has eighty one, then into mercury, with eighty, then into gold, with seventy nine. Or rather into an isotope of gold—that is to say, into a substance having all the properties of gold except for a greater weight. Isotopes are common in nature.

"The power thus obtained was tremendous. We produced aluminum far heavier than lead and solid oxygen that refused to melt. These unnatural atoms showed a strong tendency to absorb energy and return to more natural forms.

"Elements that changed into others were found to be highly dangerous and the rays formed, where power was produced in bulk, had harmful effects. Therefore, the main production of power was transferred to the Moon, which to this day sends down an invisible beam of energy that, transmitted to our globes, is radiated down again.

"In this way we have made the whole of the globe habitable except the extreme South Pole, instead of merely the equatorial belt,

which is the only area on which the unaided power of the distant sun can support human life.

"The last step was to move the Moon from its orbit, and fix it over the North (magnetic) Pole. This was done to obviate the difficulties of having a moving source of power. When our nearest neighbor in space, massive Jupiter, passed near our planet it caused perturbations in its orbit and that of its satellite."

"The great beam no longer fell on the receiving plants. All of the little suns winked out and millions died of cold before the scientists brought the Moon back into its orbit.

"Such is the tale, Hasteen. I have told you, a child, more than many grown-up persons know. Now let us play."

I agreed, for my mind had acquired as much knowledge as it could digest at one time. We rode on our kolabs, creatures with round yellow bodies and single snaky legs with a pad at the end. They progressed by jumping, and obeyed verbal commands. We made them throw us high in the air and catch us on their powerful tails.

Seeing us enjoying ourselves, the others came to join us and we swam in the lake and played with octopi. A great snake, with beautiful gold, red and blue markings, swam with us. We had never seen its like before but we had no fear, for the last harmful creature on our world had been destroyed long ages before.

THAT night, as I lay on my wonderfully soft bed, I pondered Parmel's words. Next day, at the first opportunity, I faced my tutor with a new question.

"I understand now what the attendant said but why did Father call it a terrible thing?"

I saw that he was profoundly startled. "There is nothing more to tell, child," he said, hastily. But I saw his pallor and the trembling of his hands and knew that he lied.

"I'll tell Father," I cried, stamping my feet in temper.

"Don't be cross with me, Hasteen. There is nothing else."

I raced away from him, knowing that he could not catch me except on his kolab and jumped into my machine amongst the bushes. Pressing the button marked *Home*, I was carried through the air to the lawn before my father's house.

Running in, I found him sitting alone in his room, for he had a love of solitude that marked him as slightly abnormal. He ignored my entrance, for he was listening to a mechanical rendering of a song sung by long-dead singers—and I knew he must never be disturbed while thus engaged.

When the music ceased I told him all. "Wonderful son," he said, fondling my brown wavy hair, "you have that desire for knowledge, for lack of which our world is about to perish. I will tell you what Parmel dare not.

"Our planet is divided into two hemispheres, each ruled by tyrants who fear that the acquiring of knowledge by the people might make their positions unsafe. Therefore they have forbidden learning. What I am about to tell you I have learned by secret ways. You must never repeat it, or my life will be forfeit.

"There is a crisis facing our world which our rulers will not allow the people to hear of lest the ineptitude of their government be revealed. The power in the Moon is nearly at an end. For countless generations it has kept our planet warm and fertile. Whereas it was once big enough to be easily seen, and to give us light at night, now it is but a few miles across and visible only in a telescope.

"The power supply is already reduced. The globes are not so bright nor so warm as they were. When it fails altogether the great majority of us must perish, for only at the equator will human life be possible. Already there is bickering between the rival governments over the apportionment of power. Arguments that may end in open warfare at any moment.

"The scheme has been suggested of capturing another heavenly body to be a young and healthy moon for us, of sending our exhausted satellite off into space. But the science that plucked the Moon from its place in the sky was of a distant generation, whose secrets are forgotten or hidden. Such dreams are vain."

It was a thoughtful and rather frightened young man that now listened to his father's words.

"No one knows what can be done," he went on. "We might build ourselves power plants of the earth, as was done in the past. But the people are sunk in sloth and apathy, caring little about the approaching danger, provided that their immediate comforts are not interfered with. None can even acquire

knowledge that might aid us in avoiding our doom—for the autocrats have forbidden any approach to the library that contains the wisdom of the ancients.”

I pondered long over all this and my secret desire was to enter the forbidden building and to absorb the knowledge hidden therein. My solo flights—I made many of them—tended always to lead me towards it and I studied the lay of the land.

It was a gray stone building, much corroded by weather, set on a barren mountain, the only approach to which was through the air. In one place the roof had fallen and shelf upon shelf of wire coils stared up, mutely protesting to the sky at this ill-treatment of the fruits of the labor of the ancients.

The jagged hole drew me like a magnet. To enter by any of the doors was, I knew, to be instantly seen on the vision screens at the police offices and the police plane would be there in a few moments. But I thought that the hole worn by the wind and rain afforded a means of entering unobserved. A thousand times, in my dreams, I flew in and found wonderful things inside.

At last, with the intrepidity of youth, I ventured it. Soft as thistledown my little machine sank through and rested on the debris on the floor. With wildly beating heart I stepped out. In thus breaking the orders of authority I was doing something not one in a thousand on our world would have dared.

CHAPTER III

The Forbidden Building

WINDOWS of quartz lighted the rooms and I was glad of this, for I dared not try the lights. Dust and rubble covered everything in this particular room and the frayed wires often broke on their passage through the reading machines—so that I soon decided not to waste time on the works in this room, most of which, I saw from the labels, related to birds and animals.

Pressing the button I found that the machinery for raising the door no longer functioned. This did not delay me long, for, seizing the central handle, I pulled until something snapped and the door went half-way up and jammed. Ducking beneath I

found myself in a long dark corridor.

Feeling my way along I found another door and, on my pressing the button, it slid silently upwards. Through the elliptical opening I saw stacks of wire coils and a number of reading machines in as perfect order as if they had been left but yesterday. It was a storehouse of knowledge of the science of chemistry—but of more interest to me was a plan of the building on the wall near the door. The room devoted to atoms and atomic power was on the other side of the corridor, three doors away.

In a few seconds I was there, taking down coils at random and glancing through the titles and the brief summary of the contents on the labels. There was a reading machine near the door and a coil had been placed on the spool and the end threaded through, ready to be heard.

It was as though whoever had been last there, probably generations before, had left it to be seen by the man who followed him. I felt as though a hand from the past, in this dark, silent house of the dead, were guiding me to the switch. Fearfully I glanced around as I furtively examined the coil.

Near the start the wire had been cut and another piece of wire, about a yard long, had been cunningly interpolated. Who would thus disfigure a complete work of science by adding an unauthorized frontispiece? Gingerly I pressed the switch.

Hearing a grunt behind me I spun around—but it was only a protest from the machinery at having its age-long rest disturbed. After that it worked without a hitch. Marvelous were the machines of the ancients.

The screen lit up, but no picture showed thereon. Only a voice came from the sounding-board—a whispering voice, dry and hoarse, as though the speaker, even as I, went in fear of discovery.

“To all genuine seekers after knowledge, if any such be left upon Earth. Here, sooner or later, must you come, perhaps secretly, as I have come, perhaps openly in some wiser day. God grant that it be the latter. Only in this way can I leave a message for you that the enemies of the light will not discover and destroy. To you, I say, ‘Find the true South Pole of Earth and much that is mystery shall be explained to you.’”

Then the join was reached. A man’s face appeared on the screen and another voice began some preliminary remarks on the subject of the work. *Secrets of the Moon* it was

called—a strange title for a scientific work.

A longing for safety came to me. I now regretted my rash enterprise. I tiptoed back to my plane, half expecting to find it gone or a guard mounted over it. But it was as I had left it. Trembling I climbed up in it—nothing in sight from the roof. I pulled the lever and shot rashly upwards.

Immediately I realized my mistake. As I climbed I came into full view of a police plane that had been hidden behind a peak. They could not have seen me come out of the library, but must know that I had been near.

With a half-formed idea that out of sight is out of mind, I raced for home.

Should I tell Father of my escapade? I had great faith in my father, whom I regarded as a comrade and friend. My only punishment would be a word of reproof. Finally, with much fumbling and stammering, I told him all.

"Are you sure you were not seen?" he asked gravely. He had gone very pale.

"Quite sure, Dad," I lied, for my courage had failed when it came to telling him about the police plane.

"I hope not," he said, slowly shaking his head, "if you are found out, the punishment is death."

AT THAT moment the radio showed the red light of an imperative call from police headquarters.

The world seemed to crash about my ears and I cursed that police plane from the bottom of my heart.

Giving me a quick glance of warning Father switched on. The coarse features of the police chief showed on the screen.

"Garlan Pollard," began the official, "the routine examination of the forbidden building was made with W-rays this afternoon, and fresh footmarks were found on the floors. Several doors were open. Your son, Hasteen, was seen leaving the vicinity shortly before. You will deliver him at once to the official plane that is being dispatched to bring him here for examination."

A cold hand closed on my heart. Nothing could be hidden from the searching gaze of the authorities. Mercy was an unknown quantity to these officials.

Not a muscle moved on my father's strong, lean face, every detail of which was visible to the searching eyes of the policeman.

"My son has not been out of my sight

since the breakfast hour," he declared.

"You will hand him over to the plane," repeated the voice.

"I will bring him to meet it," replied Father, switching off.

Rising, he beckoned to me to follow and we went in silence to where his plane, *Amphibia*, as he called it, rested in its shelter. I could not blame him for handing me over, for resistance to the authorities was unheard of and escape impossible. But as he started off he gripped my hand in a strong, warm grip, without a glance in my direction.

I felt a fresh wave of confidence in this silent reserved man whose child I was.

The plane, *Amphibia*, was of Father's own design, and had an airtight body shaped like a stout, fat-bellied fish. There were lifting propellers at the top and driving propellers behind. Along the sides were wings shaped like the closed wings of a bird. It could travel at great speed, though not so fast as the police machines, and could go up to the highest limits of the stratosphere. The reason for its name was the fact that, with its lifting vanes idle, it would run along the ground—or, with the wheels folded away, serve as a speedy motorboat. It could even be used as a motor sleigh on the snows of mountain tops or pleasure resorts.

In an incredibly short space of time we were advancing to meet the police plane. "You will hand the prisoner over to us," they barked through our receiving apparatus.

"Coming," said father laconically, guiding the plane with his left hand. Then I saw something that thrilled me with a new fear. His right hand, hidden from prying rays behind a solid block of metal, held a square black object with a handle and a pointer. It was one of the ebonite boxes that could contain an enormous amount of power and I saw that the indicator was set for disintegrator rays.

Even in my fear I realized that father was right. It was better to die in a hopeless fight than to face torture in the hands of the authorities. For his attempt to shield me had inevitably involved him in my fate, particularly as the police had long been seeking an excuse to do away with him.

"Preparing to attach myself alongside," father told them, zooming about with a clumsiness foreign to his usual precise skill. The object of his maneuvers was soon revealed for, directly we were out of sight of

any windows, and therefore temporarily safe from attacking rays, his hand shot out. In an instant the main driving propeller of the police plane was in fragments. The ship fell away, spinning sickeningly.

We shot upwards, zig-zagging in all directions. Below us the crippled ship was righted and feebly tried to follow. Father glanced without a word or change of expression at a hole in our wing, torn there by a ray that must have missed finishing us by inches.

In a few moments we were among the clouds, the first fugitives to escape from the police since the legendary criminals and heroes of the past.

OUR troubles, however, were by no means at an end. While we had disabled the only official plane in active commission in our district, others could be started as soon as the men were got together. A few minutes would suffice to warn other districts of our flight.

We went up to the rarefied air of the highest altitudes, where we were safest, alike from the long infra-red rays that penetrate fog and mist and from short X and Y-rays that penetrate material objects. It was freezingly cold, but we could have our heating apparatus only at half strength or it would serve to pick us out.

"Where are we going, Dad?" I asked, breaking a long silence.

"South Pole," he replied, as though it were next door. He was making for the opposite end of our world in response to the message from the past I had heard in the forbidden building.

We were above the artificial suns, globes over a mile wide, radiant on the underside and black above. One of them turned silently over. Father permitted his first exclamation to escape him, and avoided it as widely as possible. The people below were being deprived of heat and light in an endeavor to find us.

A police plane shot up, searching the sky with great beams. Then my father showed his cunning. He kept between the plane and the light, in the full power of the well-nigh intolerable heat of one of the globes—the one place where we could not be seen. The plane passed on.

Our radio carried to us the messages sent out by the police telling of our flight. Then an urgent public proclamation was broad-

cast that we ignored until we realized its startling and terrible import. Briefly it stated that the negotiations between the North and the South, concerning the apportionment of power, had broken down. The hemispheres were at war. That meant we had thousands of miles of hostile territory to cross on our way to the pole.

FOR a while it helped us. For the forces of the government were too busily engaged to trouble greatly about us. We ceased dodging about, and made straight for the frontier in a mad attempt to cross it before the great protective screens were properly in action.

Oceans and continents raced by beneath. Crashings and boomings sounded from the east—and, daringly switching on our vision screens, we saw a great town being reduced to dust by an enemy fleet.

Of course both sides would strain every nerve to strike the first blow. Hundreds must have been slain before they even knew they were at war. The long mottled bodies of the planes were like a group of deadly snakes, rushing in to strike a blow, then dashing out again.

Occasionally a lucky shot would catch a raiding vessel before it could escape, but steadily the towns were being destroyed. In the surrounding countryside no human life remained, for the land was bathed in deep, inaudible sound waves that caused certain bones in the skull to vibrate, snap and cut into the brain.

Abruptly the defensive screen of the town broke down. Then a few seconds sufficed to annihilate its inhabitants and the fleet went on to the next town. The Northern fleet was probably carrying out similar operations in the South, for the people of our planet had thoroughly learned the first principle of war, dimly realized by Earth in the little war of 1914-18 and nearly carried to its logical conclusion in the terrific holocaust of 1950-51.

The first principle is that you can do far more damage to an enemy's morale by striking at his helpless civilian population than you can by destroying his army or navy. We execrate our late antagonists for the brutality of the poison gas attacks that wiped out half America in the fall of 1950, but they simply meant that our opponents were the first to realize that war is simply mass murder, the first to carry out mass murder with the greatest possible efficiency.

CHAPTER IV

Stranded!

UP, up we went to the atmospheric ceiling, our atomic heater, now in full reckless blast, making us fairly comfortable. Straight ahead showed a faint pinkish haze that was the five-mile wide electronic barrier of the frontier. My heart fell, for nothing could pass that wall but a fleet with terrific defensive power at its command and prepared to lose a third of its number.

As soon as we entered it we would be shown on the screens of both sides. And we, being a civil plane crossing the frontier against the rules of war, both sides would instantly bathe the whole area with brain-destroying vibrations.

Father set his teeth and tore at that impregnable barrier at his top speed. In earth terms I think it would be about 600 miles an hour. In the dim light reflected from his instrument board I saw his lips were drawn back, and his eyes aglow with insane ferocity.

I knew that the passionate, tempestuous nature of this outwardly quiet man was capable of the most unreasoning acts in fits of ungovernable fury. Rumors that had reached me regarding his sanity recurred and caused me profound anxiety.

Straight ahead glowed that pale pink haze. Father swerved neither to the right nor to the left, but turned slightly upwards. Was it possible to go further up? It was, but only for a while, for our velocity carried us right out of the atmosphere like a fish leaping out of water.

It was an invention of genius, of a wonderfully expert airman, an idea that offered one chance in a thousand of escape. I looked out at the surface of the atmosphere beneath, for I saw that the air does not gradually become more and more attenuated until a vacuum is reached, but at a certain point there comes a definite break, a distinct surface.

Seen from above it was like the faintest possible ghost of a sea, with humps and hollows and slow-moving waves many miles in height. Where we had left it, a huge splash was forming, exactly like a splash in water seen in a slow motion camera.

We were dropping again and I saw that

our desperate leap would carry us scarce a quarter of the distance across the barrier. We struck the surface. To my surprise, exceedingly rarefied as that surface was, more tenuous than what often passes for a vacuum on the ground, there was a distinct shock. We darted up again like a flat stone skimming the surface of a lake. The watchers must have been puzzled by the black marks that appeared, momentarily, on their screens.

Again that sea of air rose to meet us; again it dropped away. All the time we were gaining distance. At last we could keep it up no longer, but now the pink haze was behind us and we were met by no death-dealing vibrations. Father's terrific gamble had come off. We were in enemy territory.

He turned to me, his face dripping with perspiration. "Pitch and toss with death," he shouted, slapping my back, "pitch and toss with death. Here, you take the controls for a bit. I've had enough." Switching the heat half off he lay down and went to sleep.

Alone in control of the ship I flew over the enemy soil. I cut down the speed to about 200 miles an hour, for I reasoned that the less power I used the less magnetic disturbance we would cause and the less likely we were to be detected. As much as possible I kept over the oceans.

When I feared that we might be seen I resorted to the trick Father had shown me of skimming the atmosphere. It was an exhilarating sport, but I could not make the prodigious speed we had made in passing the electronic barrier. Many a time I was on the point of calling Father, but I won my way without detection for thousands of miles.

AT last I had to wake him, for a fleet was following and rapidly overhauling us at our utmost speed. He grunted and took over the controls. But we could not equal the speed of those ships and soon we must be overtaken. He realized this, for he cut down our speed and hid behind one of the artificial suns.

This was futile, for soon they would be above, below and all round us. But again I underestimated the resourcefulness of my father. Soon he found what he was looking for, the door in the side of the globe through which entry could be made in the rare event of the internal machinery requiring attention.

In a thrice we were within, nestling among the mechanisms. Here, though the X and Y-rays would peer through the walls, what

would appear to be an extra piece of machinery stood a good chance of escaping detection.

Getting out of our vessel we threaded our way through dynamos, valves, electromagnets and much apparatus whose purpose was a mystery to me. Our disintegrator rays made a slit in the side of the globe, through which we watched the advancing fleet.

A few moments' examination showed it to be composed of ships from the North racing across the enemy country at their utmost speed. In their wake followed a great belt of darkness extending right across the sky—and I thought at first that they fled from some frightful weapon of destruction, some terrible new engine of death.

Then I saw them come upon one of the artificial suns. It splintered and crackled as they focussed their rays on it. The light went out and, as the huge store of energy within was released, it exploded with a blinding flash of light and a terrific detonation. Our own globe was set rocking so that it broke away from its position over the magnetic clamp in the ground below; but gradually the attraction reasserted itself and it came back.

I was thunderstruck at this monstrous act of vandalism. The replacing of one of those globes would, in the inadequate state of our mechanical knowledge, take more than a dozen generations. In the meantime the snow and ice of eternal night would seize in relentless grip the land and seas beneath.

Yet the act was perfectly consistent with the object of the war. The fewer globes either side had, the less power they would require and the more there would be for the other.

It was a fight between the hemispheres for the means of existence and was being waged utterly without mercy.

Probably Southern ships were doing the same in the North and soon a narrow band of people at the naturally temperate equator would be the only survivors. They would be, I reflected bitterly, nearly all soldiers.

While I was thinking thus the fleet was advancing on us and the globe we were in was the next in its path. It now seemed to be by no means the haven of refuge it had been and I thought an explosion, like the one that had shivered the last, would be a very unpleasant thing at close quarters.

Father called sharply and I got into our ship beside him. Together we waited for the enemy fleet to attack.

NOW I noticed a curious fact. I suppose the human mind has a limited capacity for terror and I had been through so much that the limit of fear had been passed. As we sat there, absolutely helpless, with no possible means of escape from the approaching ships, I was not the slightest bit afraid.

I did not fear the speeding vessels nor their blasting rays nor the crashings and flying fragments that would presently make this dim-lit place—silent, save for a low hum that pervaded every corner—into an inferno of twisted metal. I seemed to be a remote, indifferent being, calmly watching these two as they sat there, awaiting death.

Father now made one of his rare long speeches. "Son," he said, "it seems that we are about to journey into the unknown together. But I still have one more plan up my sleeve before we finally give in, one more card for the last trick, though I fear Fate, herself, holds the ace. If it fails, at least death will be swift. Strap yourself in." Of course I paraphrase his remarks.

His words gave me hope, and I was surprised to find that, while I had had no hope I was calm—but when hope returned I was afraid.

With a loud report a large section of the side of the globe blew off. At the same moment Father pulled his lever. Eager as a greyhound the little machine leapt from its resting place straight at the side of the globe. I held my breath for the collision, but the sides were as thin as paper and we tore through with but a slight shock. In the crashing destruction of the globe the little noise we made must have passed unnoticed.

The engine stopped and the plane made a sickening plunge downwards, spinning like a top. I was turned upside down, flung sideways, backwards, to the right, to the left and rendered intolerably sick and giddy.

"The plan has failed!" I thought. I had no means of knowing whether Father was alive or dead. It was impossible for me to get out of my straps and reach the instrument board. The waves of a hungry sea reached up for us and I knew that the impact, at this speed, would smash our machine to splinters.

Unexpected sideway lurches added to my distress. Then I saw that Father was at the instrument board, fighting to check that awful spin. Suddenly the whole world was plunged into darkness, the life-giving globe blew up and the attacking ships, little streaks of vengeful fire in the black sky, passed on to

continue their work of destruction. The fall of our vessel had not been noticed in the rain of fragments from the broken globe.

We struck the water with a splash, and I was startled, for I had not thought it so close.

* * * * *

"You were tired out and you've had a good sleep," said my father's calm voice. I rose from the couch on which he had stretched me and felt my bruises, which I had not been aware of when I received them, but which were very painful now that nature was trying to repair the damage.

In a very pale gray light we floated on a millpond sea, above which there blew not a breath of air. It seemed like the dawn of creation before land rose above the waters, before anything moved. A very distant sun, just above the horizon, gave barely enough light to enable us to see how helpless and alone we were; but provided no heat.

In the opposite direction an aurora borealis, brighter than any I have seen on earth, showed the destination we might reach, if at all, as corpses. It was the South Pole we had foolishly set out for, in response to a probably deceitful voice from the past. Nothing could be there but the ice and snow that had always held the region in undisputed possession.

Father was a man who never gave up, but I saw by his face that a black despair had settled on his heart. I did not need to be told that *Amphibia* would never fly again. Her left wing was gone and the main lifting propeller had broken off in our escape from the globe. The outside temperature was dropping and would soon be at freezing point. In our scant clothing we could not long survive outside of the atomically heated cabin.

He started one of the remaining propellers and sent us bowling along the still water. The remaining wing dragged in the water and caused us to travel in circles, so Father went outside and cut it away.

"Freezing cold out there," he observed on his return, pouring himself out a hot drink.

CHAPTER V

The Isotope Men

WE WERE now able to attain a considerable speed, thanks to our power

and to the lightness of our vessel, which nearly lifted itself out of the water. The sun went down, but we took turns at watch, keeping a beam of light pointed ahead.

In the morning we were forcing our way through a thin film of ice. The way we had come showed as a long black path and the ripples of our passage could be followed for nearly a mile.

Gray ghost of day succeeded gray ghost of day. Snow sank softly down, covering the most dreary view that ever was, to the depth of about a foot. And always the cold, bright aurora beckoned us on. The white flakes fell straight in that motionless air as though reverently covering a dead earth in her shroud.

Presently, I thought, the thickening ice-sheet must hold us fast; but when this danger seemed near, Father started a lifting propeller, and we jumped out and sped on our smooth underside over the snow. Nothing like our weird journey would be possible on Earth, but our world was without tides and even the winds, produced by artificially varied temperatures, came no more. So that Nature was extremely kind, save for the steadily increasing cold.

Days followed each other like pale phantoms, dream days. The sky was ever cloudless, the stars always visible.

At last came the first real incident since we had struck the water. Before us rose a sheer wall of ice. The ice over which we had run, until now was but a few days old; but this was the beginning of the great polar ice-sheet that was as old as many of the rocks of the globe themselves. Beyond the wall the surface was tumbled and broken by the stresses and strains of ages.

My dauntless father found a ravine where once a glacier had flowed and sped up it. We began our much more difficult journey across the tumbled ice, past crevasses and mounds and round sheer cliffs. White-furred animals lay frozen to death. Our speed was much reduced and we used our searchlight day and night.

At last the catastrophe we had avoided by inches a hundred times occurred. I was in charge when a crack appeared ahead that had been imperceptible until we were right upon it. There was no time to turn. I switched on all the available lifting power, but struck the opposite side.

Amphibia dipped her nose and settled into an everlasting resting place. She sank

too deep to allow any hope of melting or blasting her way out. Even my resourceful father could not get her to the surface again.

"Beaten when nearly at our goal," he remarked hopelessly. "If we had but warm clothing we might finish our journey on foot. As it is ten minutes out there would freeze us."

Sunken in apathy, neither of us spoke for hours. At last an idea struck me.

"If we could find one of those dead animals," I ventured, "the skin might provide us with covering."

"The boy has brains," he admitted. "We will go and see."

As we stepped out the bitter intense cold gripped me like a huge hand of ice. Each breath was like a sword plunged into my lungs.

Ploughing through deep snow we found a place where the wall of the crevasse was scalable. We clambered up to survey the desolate landscape. No dead furry body, whose protection we might steal, was visible on the tumbled expanse.

But when we looked to the north, on the opposite side of the crack, we saw something that astonished us. A great oval body, obviously a ship, lay green and gold on the distant ice. At first, I thought it was hallucination. Then I saw that Father, too, was looking that way. I shouted and waved my arms while he, having a better idea, signaled with a light beam from his handpower box. Response was almost immediate. The ship rose gently as a soap-bubble and drifted to us.

If this were rescue coming it would have to be quick to do us any good. Already, a dangerous numbness was creeping over my limbs. Yet who was likely to rescue us? To half the world we were fugitives—to the other half, enemies. Of one thing I was sure—that oval ship was of a pattern never before seen on Earth.

IT CAME to a stop before us, precariously tilted on the rough ground. Through round windows, men of calm, impassive features looked at us, and their clothing was simple but exceedingly strange, like the clothes worn by people in pictures of long ago.

A round door opened, and a deep voice uttered the one word, "Enter!" It was probably a trap, but death would claim us very soon now if we remained where we were. We

had no choice. I stepped in, half expecting the whole mirage to vanish.

But my feet met a floor of some soft rubbery material and the air seemed very hot after that outside. We were in a small empty room that was obviously an airlock. Abruptly my legs crumpled and I fell, still conscious, to the floor. Father knelt and chafed my arms and legs.

Nothing happened for a while, but a sort of thermometer on the wall showed that the temperature was slowly rising from the freezing point. Obviously, the inmates feared that too sudden heat might be harmful to us.

When the temperature was about that of a hot summer's day in New York, the door giving access to the interior of the vessel opened and a man stepped slowly through. I noted as a curious fact that whereas Father's feet made little impression on the floor, the man's feet sank into it, making deep footprints that slowly filled in, when he had passed. Yet the stranger was the smaller of the two.

With a face, that might have been carved in stone, he advanced and indicated to Father that he was to enter the vessel. He bent over and picked me up and carried me in. He staggered as he raised me, as though he found me unexpectedly light.

I had a vague impression of a warm, well-lighted interior, of pictures on the walls, of strange men and of solid blocks of the rubbery material on which they sat. I had an unreasoning conviction that they were friendly to us. The reaction from the stress and strain through which I had passed was overwhelming. I could neither move nor think, but sank into a happy slumber.

My sleep, however, was not one of perfect rest. It was shot through and through with streaks of pain and I lived, again and again, through every detail of that terrible voyage. I dreamed that hideous monsters were tearing my arms and legs from my body or chewing my limbs to shreds. All the time I was dimly conscious that I was making a prolonged and desperate struggle for life.

At last, like a ship sailing out of a stormy sea into a smooth harbor, I woke up. Pain still wracked my body, but it was nothing to the agonies through which I had passed.

A soft orange light filled a cylindrical room that seemed to be underground. Pictures hung on concave walls and exotic flowers grew from saucers of soil on the tables.

I lay, naked, on a rubberlike couch that,

shaping itself exactly to my body, seemed softer than the softest down. Parallel to my bed was another on which lay my father, shockingly emaciated. His ribs showed through his skin, his cheeks were sunken, but his eyes, full of fire as ever, glowed out of dark hollows.

"How thin you are!" I cried and was surprised to find my voice so cracked.

He smiled, a ghastly smile, and observed, "I was thinking how different you yourself are from the chubby youth I used to play with."

Another voice spoke, that of one of our rescuers who was seated near our feet.

"You have both been unconscious for many days," said he. "Frost had bitten deep into your vitals when we found you and you have long been hovering on the brink of death. To aid your recovery and to prevent you feeling the agony of so much dead flesh coming back to life, we have kept you unconscious. Drink is beside you."

The fluid was like thick soup, palatable and obviously highly nourishing. It must have been drugged, for after drinking we immediately dozed again.

SO, WAKING only to eat and drink, we passed the earlier part of our convalescence until we were able to get up and walk a few tottering steps. Men came to see us and some women. All walked with slow, heavy tread, as though gravity dragged at them fiercely.

They bore an air of profound knowledge, and seldom spoke. One man came frequently and stared at us. I had learned to ignore this silent scrutiny when he startled me by speaking.

"They may answer questions," he said, and went out.

Our attendant repeated the remark to the next man who entered. If we could answer questions we could also ask some, thought I.

"Where are we?" I demanded.

"In an underground town at the South Pole," came the ready response. "We saw a light approaching and thought an attack was being made on us. A ship went out to investigate, but the light went out and they could not discover the cause of it.

"They reported that as they were about to return they found a small vessel wrecked and half buried in snow and you two, practically naked, wandering about in a temperature

that would have been instantly fatal to any of their crew. Were you tired of life?"

Father gave a short account of our adventures, our visitor being very interested in the object of our journey.

"So visiting the building of knowledge is forbidden. Approach to the monument of our heroic ancestors is punishable with death." His voice, deep and vibrant with passion, showed the first emotion I had noticed in these phlegmatic people. "I might have known it. So be it. They are not worth our labor to preserve: they and their world shall return to cosmic dust."

Our attendant checked his outburst and apologized. He then went on to explain many things. The message I had heard had been left long ago by a man who risked his life to leave it—so long ago, in fact, that, as generations passed without response, its existence had almost been forgotten.

Our rescuers, who called themselves the Isotope People, were the descendants of the scientists and laborers who were originally established on the Moon to maintain the supply of power. Life on the Moon was much harder than on the planet and they retained many mental and physical qualities lost to the main body of the race on the larger globe.

The planetarians had learned to accept as a right the products of the labors of their social inferiors on the satellite. Scientists and leaders of thought had tended to drift to the Moon. The gulf between the two worlds had widened until one had almost forgotten the existence of the other.

Increasing physical differences came to emphasize the division, for as the moon grew smaller it became increasingly charged with exaggerated isotopes, matter having an exceptionally large number of protons and electrons in the nuclei of its atoms.

No matter what precautions were taken their own bodies became charged with isotopes that manifested their presence in increasing weight for size. They breathed them in in their air, they ate them in their food, they drank them.

The disadvantages of this state of affairs were twofold. In the first place the fluids of the body tended to solidify readily, making the owner very sensitive to cold. In the second place, if the possessor of an isotope body were exposed to the rays of an atomic power machine, then, should the substance from which the power was being obtained contain any elements that had their counter-

parts in the human body, the atoms in the body would recognize and absorb the rays.

For each element produces and absorbs rays of its own particular band of wave lengths. This led to electrons jumping out of too-bulky nuclei and to new and perhaps dangerous elements appearing in the body.

Stringent precautions had therefore to be taken against exposure to cold or to power rays. To prevent the process going too far they had built this secret city under the eternal ice, where they spent their vacations and returned to normal. No person not of mature age was allowed on the moon. And for every period spent there, a period six times as long had to be spent on the earth.

Indeed, with the reduction in size of the stellite, not more than a seventh of their number could conveniently be there at one time. Their leader himself had spent more than the average proportion of time on the moon and his body was about twice as heavy as it should be.

It was to relieve their muscles as far as possible of the strain of carrying these weights when exposed to the gravity of the earth that their chairs, couches and floors were composed of the soft, rubberlike composition I had noticed.

CHAPTER VI

The Return

THE war, he stated, in response to our query, had resulted in a complete victory for the North. The raiding ships of the South had been destroyed by men hidden in the artificial suns and using the tremendous power of those bodies to project rays against which nothing could stand. All the Southern globes had been destroyed and ice now covered practically the entire hemisphere.

It seemed that the North had determined on extermination. All pleading for peace had been ignored. Towns were still being destroyed and survivors were barred out of the North by a wall of vibrations. This inhuman savagery had done more than anything else to convince the isotope people that the time was ripe to come out and leave the planet to its fate.

"How much longer will the power last?"

we queried.

"Years yet, but it has grown very hard to obtain and there is much resentment at our continued slavery to support a people who are not worth it. You see, there is not only the question of keeping up the heat and light of the earth—the great beam of magnetism that holds the moon in place is a continuous drain on our resources.

"Let me explain. Every magnet has a north and a south pole. Like poles of magnets repel each other, unlike poles attract. Our space-ships travel through space by focusing a beam of magnetism on the pole of their objective that gives forth magnetism of the opposite polarity. The Moon is held in position by a beam of power of the same polarity as the North Pole of the Earth.

"When the power fails the Moon will fall. Although it is smaller now it is still as heavy as ever, the reduction in bulk being simply due to the greater part of it consisting of extreme isotopes. Were the mighty prop to fail, the fantastically solid and compact body would hurtle down and pass through the crust of the planet as a rifle bullet passes through a sheet of paper."

"Then the planet, the Moon and the whole human race will be destroyed," I cried.

"The planet and the Moon, yes—but not the whole human race. We have made preparations against that day. Beneath the ice we have constructed huge space-fliers, capable of carrying all our people. There is another planet, the third from the sun, which we are confident is suitable for mankind. At present it is recovering from the grip of an ice-age."

"But the people," exclaimed Father, "who will be left behind. Won't you warn them, and give them a chance to build ships so that some of them also may escape?"

The isotope man shrugged. "They have shown themselves unworthy of saving," he responded.

Father began to plead for them. The people were not responsible for the actions of their rulers, he said.

"They have the government they deserve," replied the other as one who argues with a persistent child. "The people themselves would be the first to rend you for trying to help them. In any event, how would you give them the message? Only the official radios are capable of receiving messages from space and it is hopeless to try them. Everything from the South is barred out by the elec-

tronic barrier."

"It can be done," exclaimed Father. "In my own house I have a machine capable of broadcasting to the entire planet. I will return and warn them myself."

"It would be suicide," said the isotope man, "but I will convey your offer to the Ruling Council at the next meeting. Of course, you cannot be allowed to take any steps until the physician pronounces you fully recovered. But I will undertake that no decisive steps will be taken without your knowledge."

With these words he went.

DURING the next few days we roamed about the underground or, rather, under-ice town. There was not much to describe. It consisted of compartments where the people had their homes, interlacing tunnels and spherical halls—some of them so huge that one had the illusion of being in the open air—in which public business, work, and recreations were carried on.

The orange light glowed everywhere and at every corner were maps with black arrows showing one's location at the moment. As one walked in these passages or halls one's reflection walked upside down above one, for the ceilings were perfect mirrors designed to reflect back the heat, and avoid melting the ice above.

In the larger of these halls the gigantic space-ships were being completed, operations that involved the use of the tremendous electrical and magnetic forces that produced the brilliant aurora we had followed for so long.

In intense white light hundreds of little black figures labored on the mighty hulls and the air resounded with hissings and thuddings. Accustomed to a world where work was almost unknown, the spectacle of so many men, each contributing his own strenuous efforts to the common pool, impressed me profoundly.

It seemed to me that no difficulty could long resist that concentrated endeavor. And I was right—if the human race will but strive together with a common will there is nothing in nature that will not have to give way in the end.

Once all danger was past our recovery proceeded so rapidly that it seemed but a few days from when the physician pronounced us able to answer questions until we were summoned before the Council. Our interview was short. Father repeated his determina-

tion to return and warn the people. And the Council, after telling us that we were uselessly throwing away our lives, agreed.

"All the space-ships are completed," said the leader, "and some of them have already started on their way. Everything essential is aboard the ships that are left and the planet can be evacuated within an hour. You, accompanied by one volunteer, will take a standard space-flier, size fourteen, and carry out your mission.

"When your message has been given, whatever the response, you will leave immediately, supposing you are capable of doing so, in the space-flier for a rendezvous in space where you will find the fleet ready to start the interplanetary flight.

"Should you meet with success, which we doubt, sufficient men will remain to insure the maintenance of the system for another thirty years, the extreme limit. We shall be watching. If your reception is hostile we shall at once abandon the moon. When the light of the globes goes out you will know there is no time to be lost, but that you must at once start off into space if you do not wish to be left behind. Go!"

I insisted on accompanying him. In spite of his protests I got my way and we started on that fatal journey together. I carried myself, I fear, with an air of conspicuous heroism, but it vanished before the matter-of-fact manner of the isotope man who was to be our guide and share our dangers.

Like an ordinary helicopter we rose until our pilot threw on the magnetic power. Anyone who has seen iron filings arrange themselves into curved lines of force round a magnet will understand how, finding one of these lines in the magnetic field of the planet, we were carried in a parabola from the pole we repelled to the one we attracted. A few hours sufficed for this leap through space, then we were settling down in the manner of an ordinary airplane in the North.

After the devastation in the South it was startling to find the North but little affected. I knew not whether to admire their more effective strategy or to regard their greater preparedness as proof of a premeditated attack.

In any case, with a fate as terrible as that of the vanquished facing the victors, the question was of little moment. That bright, apparently prosperous landscape appeared to me like a bubble liable to burst at any minute, for all-devouring fire and ruin to

pour through.

Straight from the clouds we dropped, this being our best chance of avoiding inquisitive aircraft. The whirring propellers deposited us gently amongst the shrubbery in the garden of our late home. From the outside, it appeared undamaged and it seemed strange that we could not walk in and continue living our lives as we had lived them before my rash visit to the forbidden building.

The house seemed to say sadly, "Within these walls you were born. Under this roof you were reared. Come in and I will provide the comfort and security I have always given you." But it lied. Our home was now a place of danger for us.

Stealthily we entered our own home. Once within, the rough hand of officialdom was apparent. The place had been ransacked. Pictures had been torn down, beautiful ornaments wantonly smashed, everything likely to arouse the covetousness of rough men was gone.

Strangely enough the radio apparatus that had been my father's special pride was undamaged. Nothing here was likely to interest ignorant marauders. With a grunt of satisfaction Father settled himself in front of his instrument board. No time was now to be wasted if we were to give a last warning to a doomed planet before the authorities could stop us. The apparatus responded to his touch and soon he was ready to broadcast.

I shivered suddenly and realized that this was highly unusual. The light, also, was less bright than was customary. I wondered whether the power was already beginning to fail or whether the cold of the South was making itself felt in the North.

Father was speaking, words that must have sounded like the wildest of ravings to his millions of astonished listeners. His voice was deep, and powerful to an extent I had not thought him capable of. Beside him stood the isotope man like a grim, motionless statue, thickly wrapped in special heat-retaining clothing against an atmosphere that must have been bitterly cold to him. Both were visible to the whole hemisphere.

NEXT ISSUE

THE MARTIAN GESTURE

A Hall of Fame Novelet

By ALEXANDER M. PHILLIPS

AND MANY OTHER STORIES

CHAPTER VII

Lost in the Void

"PEOPLE of the world," cried my father, "rouse yourselves, for doom stares you in the face. Already your heat globes grow dim. Your power is failing fast. Ignore it much longer and nothing can save any man, woman and child from fiery destruction."

"Ssssss." It was the police warning to desist.

"There is yet time. With care the power in the moon can be made to last for a generation. Time enough for space-ships to be built—"

"Ssssss! This is your last warning."

"In which many of you may escape. But if you show yourselves indifferent, the people of the Moon will cease their prodigious labors to keep the failing system going. The Moon will fall and—"

"Ssssss—sssss—sssss!" went the police transmitter, drowning, even in the room we were in, every further word he spoke.

The outside sky was thick with airplanes, like wasps from a disturbed nest on a summer's day. The house was surrounded with people, many of whom were shouting, "Shut your—mouth!" . . . "Death to the mad-man!" . . . "Kill the lunatic!"

We might have got away through a side window to where our number-14 size space-flier was waiting to carry us to the waiting fleet and safety. But Father preferred to carry on with his mission to the end. He shut off the machines, stopped that infernal hissing, and stalked to the open window. The isotope man stood stolid beside him, offering no comment, and I appeared at the next window.

"Foolish people," he went on, "I come to save you. Unless you act and act at once, fate will be upon you in a few hours. Already your light grows dim."

I thrilled with admiration at the spectacle of these two isolated men thus facing, unarmed, the angry mob in which not a voice was raised in their favor. But the average man, who hides himself in the crowd, has an instinctive hatred of the man who stands alone. One such can usually be found to strike a blow at helpless solitary figures.

It was so now. Someone outside laughed an insane laugh, I saw a hand with a black object appear above the heads and a disintegrator ray stabbed out. Where the two men had been was a great hole from which the timber and masonry had fallen. A terrible scream was the last I ever heard from my father.

The isotope man was as silent in death as he had been in life.

I stood at the edge of that hole, of that hideous wound in the side of our house, stunned by the shock. I could not realize that my father was dead. The very suddenness of the blow prevented my feeling any sorrow at the time. Years afterward I was to realize that death comes to us all, that Father had at least died in the way he would have chosen.

Like a man in a trance I was conscious of people round me, of being jeered at and asked questions. Then soldiers came, but I cared not what they did to me. At last the pain of their arm twisting and other torture forced me to attend to them. They were asking questions about our "confederates," questions that I could not answer, for I was not sure whether the people at the pole were ready to resist an attack.

"Take the stubborn lout to headquarters," growled an officer, "hypnotic drugs will make him speak."

At that moment soldiers and house vanished from view. A complete blackness had fallen on everything. Finding myself released, I turned round to see one of the artificial suns glowing red in the sky for a few seconds. Then it had gone.

Somebody screamed in terror. "The power has failed! The power has failed!" His rushing feet, stumbling in his haste to get out of the house, resounded through an intense stillness.

Panic followed. Forgetting me, the soldiers sought only to get away, though where they could go I knew not. In a few minutes I was alone in my ruined home with the bodies of my father and his friend.

Tears streaming silently down my cheeks, I searched for them with a light beam. All I found was a heap of rubble, beneath which, what was left of them probably lay. There was ample evidence they could not have survived.

Caring not what happened, I collected warm coverings and tried to sleep. Later I rose and went in search of more coverings.

WHEN I awoke, shivering, I found a small sun, the natural one, low in the heavens, sneering as if in mockery of day. It shone on a world already changed. Flowers and plants had blackened and wilted at the touch of frost, the ground was white with snow and the lake had a film of ice.

A longing to get away from this place seized me—from this place with its many tender associations that were now so painful. Finding the space-flier among the bushes I got in and gave the starting handle such a savage jerk that the vessel shot upwards with a force that threw me backwards.

The controls of the flying machine were similar to those I had been accustomed to and presented few difficulties to me. I checked the upward rush, leveled her out and set her racing forward. She was tearing north, a useless direction, but what did it matter?

I let her run for hours, not even keeping a lookout. Suddenly a tremendous glare of white light glowed ahead, as though the earth had opened and gushed forth a fountain of flame.

The white flare passed to give place to a leaping red glow. Abruptly the explanation rushed into my mind with crushing force. The moon had fallen!

A terrific wave of air-pressure struck my little craft, making it spin over and over. Then it began to rain stones, earth and trees, objects that had been torn up and thrown high in the air by the shock in its passage, then left behind. Comparative calm followed and I looked down to see that not a house or tree remained standing.

No vessel but my own, rigidly constructed by the isotope people, could have lived in the air. Hills had been flattened out or built up, altering the contour of the land. Seas had left their beds. Angry rumbles sounded from below and wide cracks in the ground belched forth fire and smoke.

Fine ashes filled the air. A thunderstorm burst and rain poured down. The lightning showed an unfamiliar landscape, white in places and black in others, and turned the glowing red spots into columns of smoke.

I went up to get above the storm. It was just that the North should meet a fate as terrible as they had wreaked on the South, even though I was inevitably involved in it. No matter how high I went I was buffeted by winds that threatened to start a crack in my sides and let out the air. The atmos-

phere here was, of course, much too rare to breathe. Peace was to be found only beyond the atmosphere.

Fumbling with the unfamiliar knobs and levers I presently succeeded in getting the repelling ray in operation. The space-flier jumped out of the atmosphere, following a line of force in the planet's magnetic field. That, however, would take me only to the opposite pole and there was no object in that.

Size number-14 vessels, designed for journeys to and from the moon, had magnetic rays of an effective radius of a few hundred thousand miles only. And now there was no Moon for me to reach up to, even had I known how to start an interplanetary flight.

Beside me was an instrument board with the words "Destination Finder," bearing various handles and knobs, the largest knob having a curved, double-headed arrow above it, and the words *To broaden* on the left, *To focus* on the right. When I switched on, a circular map of stars appeared on a black screen.

Correctly I surmised this to be a view of that part of the sky included in the sweep of the ray. All the bodies shown were much too far away to aid me. But in one place appeared a bright red spot that I could not see on looking out of the window. Did that mean that I had found an object in space that my ray was capable of acting on?

TURNING the handles to keep the red spot always within the circle, I began to focus the ray. The stars in the circle seemed to come towards me, the outer ones disappearing beyond its edge.

I began to feel as though gravity were tugging me upwards, proving that I was forcing myself away from my objective. Switching off, I changed the polarity of my beam from South to North, and switched on again. The ship and the whole universe seemed to swing upside down, the planet now below me and my objective above.

The planet dropped away with ever increasing speed as I shot into the void. Closer and closer came my target until I saw it was none other than a space-ship of the isotope people, probably at rendezvous spoken of.

Despairingly I changed the polarity of the beam to repel the ship from me.

The ship loomed gigantic in the heavens, rushing toward me. Then I saw with immense relief that I was going to miss it. At

terrific speed I hurtled past and rushed on into space.

A fresh problem confronted me: that of turning round in space, or of training my beam through the underside of the vessel. Though I studied the lever and dials a hundred times, none of them offered any help, and all the time I was helplessly hurtling on into the void.

In despair I tried this lever and that, until, in my ignorance, I touched something I should have left alone. There was a crackling of sparks, a brief flash of blue flame, and all the machinery stopped and remained dead.

All round were the cold, distant stars, among which, the disc, that was the world I had left, stared at me mockingly. Ages passed and I could do nothing. I seemed to hang motionless and weightless in an infinite empty space.

Not entirely weightless. After a very long time I found I had some weight, just a few pounds, and tended to fall towards that part of the vessel I called the "top." That meant some exterior force was acting on the vessel. I concluded I was still chained by gravity to the planet I had left and was beginning to fall back onto it.

My weight increased, and I realized it could not be gravity that was thus acting on my vessel but not on my body. At the same time I saw that I would not collide with the planet, but would travel in an orbit of my own.

My weight decreased to nothing—but now I saw something that sent me wild with joy. It was the space-ship of the isotope people. They had seen me pass, a great magnetic beam had reached out into the void, found me and was drawing me to safety!

Slower and slower I approached the ship or rather caught up with it, for it was already well under way. I turned to look at the planet we were leaving. A startling thing occurred, a thing I thought was an illusion.

One moment the world was there, pale but clear, like our own moon shining in the sky before the sun has set, but smaller. The next moment it was not and there was nothing but a lot of fragments, slowly widening their distance from one another.

A frightful explosion had occurred: I had witnessed the end of our world and the formation of the asteroidal belt, that collection of small worlds that circle the sun in the orbit that was once that of our planet, be-

tween the paths of Mars and of mighty Jupiter.

The explanation was that the highly concentrated Moon, on meeting the internal fires of the globe, had begun to absorb all the available quanta of energy. As it did so it expanded, until the crust of the planet burst asunder with the strain, with the results I saw.

I boarded the ship safely and we continued our journey to the distant earth, soon a conspicuous object in the sky, in which the ice of the poles and the warm, fertile country between could be picked out by the naked eye.

I remember little more. Not all the ships reached this earth safely, but some of them must have done so and the passengers established themselves here. Whether they or their descendants relapsed into savagery and gave rise to the Cro-Magnons, the first true men whose tools and bones have been found, or whether they found people here before them and were swallowed up in the race, I cannot say.

All I can say with certainty is that that boy, Hasteen, became the ancestor of me, Christopher Barlem, and probably, through innumerable lines of decent, of every human being on this earth today.