



TALES of WONDER AND SUPER-SCIENCE

No. 14

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Mars Bombards the Earth!
**DEATH FROM
THE SKIES**

by A. HYATT VERRILL

Life on a Strange Planet
**CHILD OF
NEPTUNE**

by MILES J. BREUER

& Other Amazing Stories

**MIRACLES of
TIME-TRAVEL**

TALES OF WONDER

and Super-Science

No. 14.

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Spring, 1941

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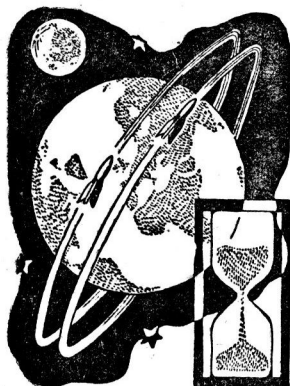
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TALES OF WONDER

and Super-Science

No. 14

Spring, 1941

WALTER H. GILLINGS, EDITOR

SEARCH FOR IDEAS: *The Vast Possibilities of Man's*

CONQUEST OF TIME

THE marvellous possibilities presented by the theory of time-travel, the accomplishment of which would enable man to review the Past and explore the dim vistas of the Future, are the subject of vivid speculation by TALES OF WONDER readers in our *Search for Ideas* on THE CONQUEST OF TIME.

For the most imaginative conception on this theme, the prize of Ten Shillings offered in our last issue is awarded to:

HENRY K. BULMER,
195, High Street,
Lewisham, S.E.13.

who suggests that, although there is only one Past, there is an infinite number of Futures, each of them a possibility, but only one emerging as fact as it is shaped by the activities of the Present.

He goes on to imagine the first efforts at time-exploration utilising the influence of mind over matter. All the drugs of forgetfulness, used in exactly correct proportions on minds suitably attuned to their insidious poison, will detach the mental from the physical; and application of the known laws of electronic vibration and orbital speed will send these questing minds wandering in the woof of time, to be caught in the warp of predetermined space-intersection.

When, at length, physical time-travel was accomplished, the pioneers, launching

themselves tangentially across the spirals of Space-Time, never returned. A man aged sixty, going back fifty-nine years, became a babe of one. Advancing a few decades, he died of old age. And when at last this difficulty was removed, man became drunk with his own power. Chaos followed . . .

To understand the situation, the peculiarities of time-transference must be appreciated. One fact clearly emerges. It is possible to go back into the Past and kill your father; but if you kill him at a time before your own birth, you automatically kill yourself. But—the Past has not been changed: you have gone back from your future to your father's present and sent the lamp of Time along another corridor. You will never have existed; you were merely a possibility.

Scientists, going far into the Past, continually influenced the Futures. Nothing was stable. Our own present troubles are the result of too much harmful knowledge being given to our savage forebears by their, now, never-existent sons. Other time-travellers voyaged into the future, searching for the colossal secrets they knew were to be found there. But every fact must have a dawn. . . .

Seeking the key to atomic power, man discovered this source of energy being used a thousand years hence. But when he tried to understand and steal its secret, his inferior brain was unable to grasp the

vast concept. Eventually, the secret was discovered by a hard-working scientist at his bench; and so with everything.

Intrepid explorers, stationing themselves in deep space, travelled backwards in Time and recorded the birth of the Solar System. Unthinkable eons farther back they ventured, to the time of the Great Negative All, to witness the Creation of the Universe itself. Going forwards, they followed the fate of the insignificant star that is our Sun, and watched its death agonies. So far into the future did they go that they lost count of the number of universes they saw born and die.

These are the things that have one Past, one Present, and one Future. But who knows man's power. Perhaps, some day . . .

Prizes of Five Shillings each go to these four readers, for the most interesting contributions among the others received:

D. HOUSTON,
142, Ardington Road, Northampton.

DENIS G. SLOAN,
Liverpool Hotel, Warrenpoint,
Co. Down.

TERENCE OVERTON,
107, Thomas Street,
Abertridwr, Cardiff.

N. P. LIVINGSTONE-
LEARMOUTH,
Holland House, Eton College,
Windsor, Berks.

READER HOUSTON thinks the actual transportation of the physical body through time will always remain an impossibility, because of the paradoxical situations and countless complications it would present.

However, he believes it may be possible to view the Past by mechanical means—but *only* the Past. For if man were able to see into the future, he would naturally attempt to shape the course of events so as to prevent the coming to pass of any unpleasant happenings which appeared to be in store for him, which again would involve so many complications as to render meaningless all the laws of cause and effect.

But with the help of an apparatus similar in appearance to a television set, we shall be able to delve into all the secrets of the Past. We shall see the birth of the Solar System, the beginnings of Life on our planet, and the vast prehistoric monsters of primordial days. We shall solve the mysteries of Atlantis and Mu, and see unfolded before our eyes the glories of the ancient Egyptians, the greatness of the Roman Empire, the Norman Conquest, and all the great scenes of history right up to the present day.

In fact, the invention of the "Time Televisor" will bring the realisation of the historian's dream!

Pondering the question of what Time really is, Mr. Denis G. Sloan emphasises that for us it is merely the measure of our existence and of the being of all created things. We measure time by the passage of our world in its orbit round the Sun. To conquer time, therefore, we would have to remove ourselves from the Earth; to halt our own progress and let the planet to which we are normally chained proceed on its way.

This would seem a physical impossibility, but, mentally, it is quite feasible. In time to come, the deep recesses of the mind will be probed, and the brain itself experimented upon, to produce a reversal of mental progress, so that man may overcome the resistance of Earth's momentum and travel, in thought, in a direction opposite to its motion.

By this thought-reversal process, any mind might go back on its tracks through the corridor of Time, perhaps to stray from that corridor and look into the rooms of the Past which it had never known, while all the time its owner reposed in the hallway of Present.

MR. TERENCE OVERTON believes that before us stretch an infinite number of "time-paths," each of which has a real existence. He conjures up an imaginative picture of a visitor from the distant future returning along that path which man has taken, to warn him of the dire results of his conquest of time.

To the men of the Present he communicates his experience of the ages yet to be, through the medium of telepathy. And he reveals that, once the secret of time-travel

was discovered, man soared to great heights of achievement, progressing along this branch of Time for millions of years, only to be overtaken by the fate which he might have avoided had he taken some other path.

For although he contrived to conquer the Cosmos, exploring the entire Universe and all the dimensions of Space, by wresting the knowledge out of the Future, he did not learn all there was to know about Mind, and so did not discover until it was too late that the heights of intellect he could reach were limited, lofty though they might be. And when they were attained, he stumbled and fell to comparatively low levels; whereas, if he had taken

a path where time-travel eluded him . . .

Mr. Livingstone - Learmouth, too, favours the possibility of mental time-travel. He thinks that man may evolve into an ultra-perceptive being capable of projecting his thoughts into the past or the future through the Fourth Dimension, and while in a state of trance similar to that in which clairvoyants and mystics claim to penetrate mysterious realms to-day.

And if this takes place, he points out, it means that we of the Present are subject to the mental investigations—perhaps even the influence—of our own descendants, as they send their questing thoughts back against the stream of Time, who knows for how many millions of years?

NOW WE WANT YOUR IDEAS ON EVERYTHING!

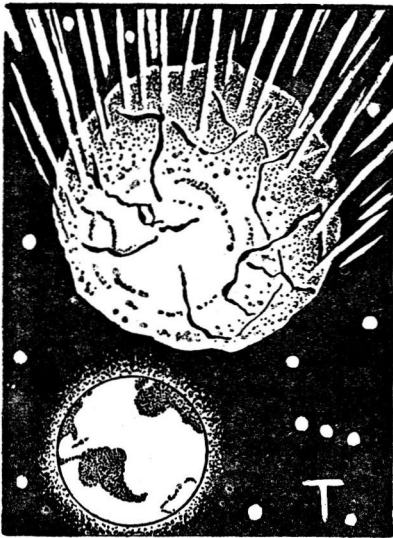
For some time past we have been receiving requests from readers for the inclusion of a department in TALES OF WONDER where they could introduce their favourite scientific topics and seek the opinions of other readers on questions of mutual interest and speculation. Though the difficulty of sufficient space has previously prevented us from complying with these requests, it is evident that such a department would be welcomed by all our readers.

So we have decided to enlarge the scope of our *Search for Ideas* in order to meet with the requirements of those who wish to send us their original thoughts upon subjects of their own choosing, and to include all matters of general interest to readers of science fiction. In our next (Summer, 1941) issue, therefore, we shall inaugurate a new feature—*Science-Fantasy Forum*—to which we invite all those who have new ideas, theories or information upon any topic of imaginative appeal, whatever it may be, to contribute. At the same time, readers who have questions on which they desire enlightenment, or the opinions of others, are asked to send them to us for discussion in these pages, provided they are likely to be of general interest.

The Editor reserves the right to decide what subjects are likely to prove most acceptable to readers, and will award a prize of 5s. for what he considers the best contribution to the feature in each issue. Consolation prizes of 2s. 6d. will also be given for other interesting contributions, which should be addressed to *Science-Fantasy Forum*, TALES OF WONDER, The Windmill Press, Kingswood, Surrey. Queries intended for publication in the next issue must be received not later than June 30th, 1941, and if a personal reply is desired following publication, a stamped, addressed envelope must be enclosed for forwarding any received.

SCIENCE-FANTASY FORUM is designed especially for you, so be sure to make your contribution to it!

Showers Of Missiles Out Of Space, Aimed With Diabolical Accuracy, Reduced Earth's Cities To Ruins And Spread Grim Death Far And Wide . . .



DEATH FROM THE SKIES

A. HYATT VERRILL

Author of *The Inner World, Into The Green Prism*, etc.

CHAPTER I

THE FIRST METEOR

I WAS in Chile when the first meteor fell. I remember it vividly. I was seated in front of my field tent in the Atacama Desert, where I was making excavations in a prehistoric burial mound. It was a few moments after midday. The Sun blazed down from a cloudless sky; the vast desert scintillated, glared. Suddenly, I was almost blinded by an intense, green flash—a burst of light so brilliant that the sunshine of an instant before seemed like twilight in comparison.

The desert turned a sickly, ghastly green; the blue sky appeared pale yellow. I caught a momentary glimpse of the Sun, like a dull, purple ball in the heavens, and then came a shattering, deafening explosion. The concussion shook the earth; the chair upon which I sat rocked and pitched as if on the deck of a ship in a heavy sea. A rush of incredibly hot air swept like a miniature tornado across the desert; my tent swayed, strained, and was ripped. Then silence, calm and the brilliant sunshine once more.

Startled as I was, with my peons rushing madly from their quarters, screaming and praying, I realised instantly what had happened. Somewhere, not far off, a

giant meteor had struck. Falling aerolites were common enough in the desert of Atacama; they lay scattered in hundreds upon the sand, and hardly a month had passed during my stay there but one had fallen in the vicinity. Indeed, they were so abundant that they had practically no scientific value. All I had ever seen were very small, the largest weighing only a few pounds. But this one must have been enormous.

I could hardly guess how close to my camp it had fallen, but from the brilliancy of its light, the rush of air following its passage, and the noise of its explosion, I judged it must be quite near. I was, of course, curious to have a look at the thing, and having at last reassured my men, I interrogated them, asking if any had noted the direction in which it fell. Most of them had been too terrified to take note of anything, but two of the more intelligent declared they had been facing the south-east and had seen "the whole desert blaze into fire," as they put it, an instant before the report thundered in their ears.

I determined to ride over and examine it in the cool of the late afternoon, and if it proved to be as large as I imagined, to radio my friend, Professor Bixby, who was then in Santiago. He was one of the world's most eminent mineralogists, and had specialised in meteorites. But I had no

need to inform him. Half an hour after the phenomenon had occurred, he was sending me a message. The brilliant light of a falling meteor had been seen in Santiago, and had been reported from Antofagasta, Tucuman, Iquique, Oruro and other points. Comparison of observations indicated that it had struck the earth somewhere in the Atacama Desert. Could I give definite information?

I could, and did, adding that I had intended to have a look at it that same day. But, as it happened, that afternoon we uncovered a cluster of remarkable graves. I was fully occupied until dark, examining and removing the contents of the tombs; and the next day found me still busy with the find which, to me, was far more interesting and important than all the meteorites that had ever fallen. Then, on the second day, another visitor dropped unexpectedly from the skies. This time it was a big bombing plane, and from it stepped Professor Bixby and three assistants.

He had lost no time in reaching the scene, and had come prepared to make an exhaustive investigation of the largest meteorite that had struck the earth for many years—centuries, probably. He had already located it from the plane, but he explained that, owing to the broken character of the surrounding desert—the meteorite had fallen about forty miles from my camp—a landing in its vicinity was impossible; hence, he had come to me as the nearest inhabitant of the desert. Of course, I welcomed him, offering him the limited hospitality of my camp for as long as he wished to remain, and the use of spare horses and pack-mules for transporting himself and his equipment to the meteorite, where he planned to remain for some time.

The plane, having disgorged its cargo, taxied across the desert sands, rose slowly and reluctantly, like a vulture disturbed at a meal, circled and roared off towards Santiago. The next day, Professor Bixby and his men and three of my peons took their departure, headed for the south-east.

I GAVE little thought to the Professor in the days that followed, but when a fortnight had passed and I had heard nothing from him, I began to feel

A. Hyatt Verrill is a noted American explorer and archeologist whose writings are not unknown in this country, although his more imaginative works have appeared in *Amazing Stories*, whose readers were loud in their praises of this remarkable tale when it was first presented in America. There is, perhaps, little comparison between the shells of the long-range gun and missiles which can be projected across millions of miles of space from one planet to another; but in "Death From The Skies" you will find several striking similarities between the author's imageries and the actualities of to-day.

troubled. He had carried water and provisions for ten days, and had arranged to send back a peon for additional supplies before his stock was exhausted, but two weeks had gone by and no peon had shown up. Very likely, I thought, laughing at my own fears, the supplies had lasted longer than he expected; he had found that he would be through with his work in a few days, and had decided he would not require more supplies for the short time remaining before he returned to join me. Yet I could not help worrying.

Bixby, I knew, was no amateur at desert work. He had made expeditions into the Gobi, the Sahara, the Arabian and our own Western deserts. But, when eighteen days had gone by, I decided something *must* have gone wrong, and forthwith set out to find him. Not until we had ridden for miles did I realise what little chance there was. I had neglected to secure the exact bearings of the meteorite. The desert was vast; it was seamed with gullies, broken by ridges, and nowhere was it possible to see more than a short distance in any direction. And, during the two weeks and more that had passed, the drifting sand had completely obliterated any trail that might have led us to Professor Bixby's camp.

Baffled, I returned to my camp, and at

once sent a radio message to Santiago reporting conditions and asking that a plane be sent in search of the Professor and his party. The response was prompt. Soon after daybreak, the big bomber swept down as before. Anxious and troubled, I climbed in; a moment later, we were off and rushing into the sunrise. It was the same pilot who had accompanied Professor Bixby before, and he knew very nearly where the meteorite lay.

He had no difficulty in locating it, but there was no sign of life, no moving figures in the vicinity. What had happened? Dropping down, he circled over the spot as low as he dared. I stared, and could scarcely believe my eyes. My worst fears were realised. Stretched upon the sand, scarcely distinguishable from the rocks as we circled above them, were the motionless bodies of men, horses and mules. As if in a dream, I counted them: three, five, six, seven dead men—corpses under the blazing sun.

I was glad we could not land. I shuddered to think of what we would find now that the vultures had finished; for the loathsome, black birds, like specks of coal upon the brown sand, were motionless, apparently gorged to repletion. Strange, I thought, that they did not move, did not flap their broad wings, showed no fright at our roaring motors and passing shadow. . . . And then I gasped. Seizing the powerful glasses beside me, I focused them on the ghastly scene below. I was right—the vultures, too, were dead! There was not a living thing upon the desert beneath us. What did it mean? I was filled with a vague dread, a horror of the place, and was more than ever thankful that it was impossible for us to land.

There seemed to be nothing we could do except return to camp, travel back again across the desert, and bury the bodies. But all other thoughts were driven from my mind by the news that awaited me at my camp. From various quarters of the world, word had been received of the falling of huge meteors. Several had dropped in Brazil; others had struck upon the Argentine Pampas, and one or two had been seen in our own South-west. Terrified Bedouins had brought reports of blazing stars falling in the wastes of the Sahara; from far-off Greenland had come news of a blinding

flash and a terrific concussion in the bleak Arctic, and several vessels had radioed stories of witnessing the passage of vast objects that seemed to drop into the sea.

Intently I perused the bundle of papers that had arrived with my mail from the mining camp at Chuquicamata, during my absence. I studied the dates of the falling stars. They had not come all together. A whole week had elapsed between the fall of the meteorite so unpleasantly close to my camp and that which had struck somewhere in Arizona. The others had come, sometimes two or three on one day, sometimes singly at intervals of several days. Evidently, the Earth was passing through a swarm of meteors; but, unlike most meteoric showers, these appeared to be of unusual size, and their coming had not been forecast by astronomers.

The papers were filled with fanciful conjectures as to what might happen if one of these giant cosmic fragments should fall in a big city. What death and destruction it would cause if such a huge mass of white-hot metal, projected with greater force than if hurled from a colossal cannon, should sweep down upon Times Square, Piccadilly Circus, the Place de l'Opera, or any other crowded part of a great capital! But no such calamity had happened, for all had fortunately struck in remote, uninhabited regions. It was merely an unprecedented phenomenon; and scarcely glancing at the more factual reports concerning the scientific expeditions that were preparing to investigate the celestial visitors, I tossed aside the papers and resumed my neglected work, mentally deciding to set out with my men to inter the bodies of Professor Bixby and his companions the next day.

FIRST, however, I wrote a report of the tragedy, addressed it to the American Minister at Santiago, and handing it to the waiting pilot, bade him farewell. Scarcely had he vanished to the south, when I received a radio message. It was from Griffin, of the *West Coast Herald*, at Antofagasta, asking for information of Bixby and imparting more news:

“UNDERSTAND BIXBY INVESTIGATING
METEOR ATACAMA DESERT. CAN YOU

RADIO SUMMARY OF RESULT? REPORT FROM KENYA SAYS CAPE-TO-CAIRO EXPRESS STRUCK BY METEOR, COMPLETELY DESTROYED. INCOMING VESSELS REPORT THOUSANDS FISH AND WHALES DEAD, SUPPOSED DUE METEORS. NO WORD RECEIVED ANY OTHER SCIENTISTS."

The matter was getting serious. A meteorite *had*, by chance, struck where it had taken toll of human lives. I radioed back:

"BIXBY AND COMPANIONS DEAD. PROBABLY THIRST. RECOVERING BODIES TO-MORROW. SEEN ONLY FROM PLANE."

Yet, as I sat pondering the matter, I could not understand how it was possible that the Professor and his men had died of thirst. Why hadn't he sent to me for water and fresh supplies? He must have realised that he was running short. And even if, by some accident, the last of the water had been lost, he could have reached my camp: a day's riding would have done it, and he had horses and mules. The more I thought about it, the more puzzled I became. Death by thirst doesn't come suddenly, doesn't strike down seven men at one time. And the horses and mules? They would have found their way to water, or back to my camp.

The vague, unreasoning dread that had possessed me in the circling plane returned to me. The dead men, the dead animals, the dead vultures. . . . It was as if they had been suddenly struck down by some malignant, invisible thing. What could it have been? Could it have any connection with the meteorite? Of course not, I decided. How could an aerolite affect men, at least after it had struck the earth and had cooled? Impossible! To-morrow—

I was interrupted by another message. This time it was from Santiago, from the American Embassy:

"REPORT RECEIVED. REGRET LEARN FATE BIXBY. ADVISE WHEN BODIES RECOVERED."

But, as I continued with my excavations, I began to feel an unaccountable distaste for visiting the vicinity of the meteorite and recovering the bodies. There was no real reason for my feelings. I,

an ethnologist, had violated too many graves, had disinterred too many bodies in all stages of preservation, to have any squeamish ideas left regarding them. To me, a corpse was no more than so much animal matter devoid of life—usually, a specimen. Yet I realised that Professor Bixby's relatives would, no doubt, feel easier if his remains were given Christian burial, and that it was my duty, as the only white man near, to attend to it. Still, for some inexplicable reason, I tried to find an excuse for not doing so. It was a long, hard journey. I had a great deal to do. The bodies were safe there; I would put the disagreeable duty off for a day or two.

That night, the second meteorite fell. I was awakened from a sound sleep by the fearful, green glare. The ground seemed to spring up beneath my cot with the concussion of the explosion; I was thrown to the earth, and half-stunned. I heard the terrified shouts and prayers of my men. Where the thing struck, I never knew, but that it was either nearer than the first or far larger was obvious. I admit, I was frightened.

There was no more sleep for anyone that night, and at daybreak my peons delivered their ultimatum. The place was accursed, they declared. I had brought down the vengeance of the gods by digging up the dead; they were leaving the unholy spot right away. I cannot say I blamed them, though it meant the end of my work, the failure of my expedition; for I could not have remained there alone, even if I had wanted to do so. There was nothing for me to do but to pack up and go. The men would not even wait to attend to the burial of Professor Bixby and his dead comrades, and by mid-afternoon our pack-train was winding its way across the desert towards Itchicama, the nearest railway station to the north.

CHAPTER II

"ONE CHANCE IN MILLIONS"

I FIRST learned of the developments that were taking place when, arriving at Antofagasta, I strolled into the Anglo-American Club and glanced over the files of newspapers. Every one bore

screaming headlines concerning the barrage of meteors that was exciting the entire world. Naturally, having been driven from my beloved work by a meteorite, I was intensely interested, but if I was to obtain any connected idea of what was happening it was essential that I begin at the beginning, or at least with what had followed the news I had already seen.

Presently, I found it in the *West Coast Herald* of the 20th:

"PROMINENT SCIENTIST SACRIFICES LIFE TO FIRST METEOR," I read. I glanced rapidly down the page. First there was my radio message to Griffin. I read on:

"The above message from Dr. Merritt, engaged in archeological work in the Atacama Desert, is the first definite news received of Professor Bixby and his assistants, who left Santiago nearly three weeks ago to investigate the giant meteor that fell in the desert. It will be remembered that Dr. Merritt first reported the meteor, when he sent a radio message to Professor Bixby.

"Although the message quoted above implies that the scientist and his companions succumbed to thirst, this appears highly improbable. The party was within a day's ride of Dr. Merritt's camp, where abundant supplies were available, and it seems incredible that an entire party of seven men should have died for want of water, under these circumstances.

"It is more reasonable to suppose that the unfortunate men were killed by bandits who, having seen the meteor fall, hurried to it in expectation of treasure, and finding Professor Bixby's party on the scene, murdered the men for the purpose of robbery. It is a common belief among the natives that meteorites frequently contain gold and diamonds. Nothing can be definitely determined, however, until the bodies are recovered.

"The fall of several other meteorites of unusual size, in various parts of the world, has created widespread interest. No reports have yet been received from the expeditions that have set out to investigate these."

I picked up the *Commercio* of the 21st.

"METEOR KILLS 300 IN KENYA,"

I read, in heavy black type across the front page. Then, in smaller type:

"REPORTS OF DESTRUCTION OF LIFE ON CAPE-TO-CAIRO EXPRESS CONFIRMED: ASTOUNDING STORY."

And astounding it was! According to the reports, the train had not been destroyed by a meteorite, as was first reported. A rescue train sent out from Kenya had found the express derailed, and partly wrecked, where it had taken a sharp curve at great speed. There was no trace of a meteorite having struck it, nor any sign of one in the vicinity; but *every soul on the train, including the engineer and fireman, had been killed.*

Strangest of all was the fact that few of the dead showed signs of having been injured when the train left the rails, and these, the surgeons declared, had been dead when the injuries were received. The only plausible theory offered was that the meteor had fallen near the train and that the shock, or the blast of heated air, or possibly gases from the incandescent mass, had asphyxiated the occupants of the train, which had continued on until it left the rails.

The story concluded with a report from Lima that pilots of the Peruvian Airways Company arriving from Iquitos, while flying over the vast Amazonian forest, had noticed extensive areas of dead and levelled trees, and that good-sized Indian villages in the vicinity had appeared deserted. It was assumed that these circular areas of devastated jungle marked the descent of several huge meteorites that had been reported from various points in Peru, Brazil and Ecuador.

EVIDENTLY, no further meteors had been seen for the next few days, for the papers reported none. Instead, they devoted their columns to the theories and opinions of eminent scientists and astronomers concerning the recent arrivals. For once, there was little dissent among scientific men. All agreed that the immense size of the meteorites was

unprecedented, but that otherwise the shower had not been unusual or remarkable. They pointed out that meteoric showers of much longer duration, and of many more aerolites, had been witnessed and recorded in the past. Had the recent meteorites been of ordinary size, the shower would have caused no comment.

Scientifically, however, it was extremely fortunate, for there would now be an adequate supply of meteoric material to enable a complete examination and analysis of these bodies to be made. New minerals might be discovered; the results might throw a new light upon the composition of the stars and planets. Indeed, the total mass of meteoric material might be sufficient to be of commercial value; though whether they were stony or metallic could not be stated, as none of the expeditions had yet reported their findings.

And they unanimously agreed that the danger to human life and property, even if the fall continued, was negligible. They showed that all the cities and settlements on the globe, if placed together, would cover only a very minute portion of the Earth's surface, and that scattered as they were, there was not one chance in millions of a meteorite falling on a town; and they triumphantly pointed to the fact that, as far as was known, no city had ever been destroyed by a falling meteorite during the world's history.

The chances of human beings being struck was even smaller. There were only two records of such casualties known. That hundreds of persons had been killed on the African express was indisputable, and the only logical hypothesis to account for it was that the meteor had passed close to the train, and its tremendous heat had generated noxious gases that had instantly killed the passengers. But, the scientists declared, such a disaster could never happen again; it was a mere chance—one chance in billions.

The effect of the meteors upon the public was, however, quite different. Many people of a religious nature saw in the phenomena the approaching end of the world. Fanatical orators stood on street corners calling on their fellows to repent and prepare for death. They recalled the Biblical story of Sodom and Gomorrah; they exhorted, prayed, and

quoted known and unknown prophecies. Thousands of people disposed of all their possessions, confessed their sins, and calmly resigned themselves to the inevitable. Churches were crowded to overflowing; in many small communities, work was at a standstill.

Thousands, with the mysterious fate of the occupants of the Kenya express fresh in their minds, refused to travel in trains. Soothsayers, mind-readers, and other charlatans did a rushing business. In several localities, too, serious revolts and riots had occurred. The natives of Mexico, seeing in the fiery visitors the symbol of their returning pagan gods, had risen throughout the republic and fallen upon their governors, massacring, burning and laying waste. In India, the natives had decided that the meteors were the result of the white man's radio, and had destroyed every station in the country, with considerable loss of life.

Even intelligent, thinking people had let their imaginations get the better of them, and had formed the most far-fetched and ridiculous theories to explain a perfectly natural, if unusual, event. The editor of one widely-read and influential weekly devoted several pages of his publication to an editorial in which he sought to convince the world that the meteors were not fragments of celestial bodies attracted to the Earth by its gravity, but actually were projectiles hurled at us from some other planet—presumably Mars. He pointed out that Mars was at its nearest point to the Earth for many years; that every meteor that had fallen had struck our globe at a spot exactly where it might be expected to strike if it had been projected from Mars, and he confidently prophesied that the bombardment would be continued until the inhabitants of Earth had been destroyed, or until the planet had passed out of range of its neighbour.

This fantastic article had brought forth a storm of protest and, at the same time, a deluge of assenting replies. Indeed, the intellectual public had, almost overnight, become divided into two parties: those who adhered to the Martian theory, and those who did not. Political and all other issues were forgotten in the controversy over the meteors; cartoons and jokes were devoted to the subject, vaudeville skits

touched upon it, and one popular magazine contained a humorous article scoffing at the poor marksmanship of the "Martian gunners," remarking that, out of more than one hundred "shots," they had made no direct "bull's-eye."

But, as the bombardment, or shower, had apparently ceased, and no great damage had been done, interest and discussion had begun to wane. Murders and scandals had again taken their accustomed prominent places in the Press, and the whole affair promised to be relegated to the limbo of the past and forgotten in a few weeks. Still, however, the subject was kept more or less alive. The later papers carried brief articles and editorials, giving interviews with prominent scientists and endeavouring to arouse interest by calling attention to the fact that no word had been received from any of the parties that had gone in search of the fallen meteorites. I even came in for sharp criticism for not having recovered the bodies of Professor Bixby and his comrades; but, on the following day, the *Mercurio* retracted and explained my reasons for having made no real effort to do so.

THUS matters stood when I sailed from Chile for New York; and while the passengers and officers conversed upon the recent phenomena, the more so when they discovered that I had reported the first meteorite, still there was but slight interest in the matter.

We had passed Arica, and were steaming towards Mollendo. It was a lovely moonlight evening and, under a galaxy of coloured lights on deck, the passengers were dancing to the music of the ship's orchestra. I was leaning idly upon the rail and talking with the first officer when, glancing up, I noticed what appeared to be a fire-ball. Calling the first officer's attention to it, I watched it with him for a moment. Very rapidly, it increased in size; it seemed to rush in a wide arc, with terrific speed.

The entire heavens were illuminated with a glare that paled the Moon, our eyes were dazzled with a blinding light, and before we could turn to call attention to the thing, there was a terrific report, a deafening concussion. Screams and shrieks came from the women, the men

shouted, the musicians dropped their instruments, as everyone rushed to the ship's side and, with scared, pale faces, stared into the night. The next instant, a blast of hot, evil-smelling air swept the ship, ripping the flag decorations from the stanchions, tipping over deck-chairs like a hurricane. It was over in an instant. Then——

"Hold on for your lives!" bellowed an officer. Like a white wall in the moonlight, a huge, foam-crested wave was rushing towards us. The ship rose on end, rolled, gyrated. With a roar like thunder, the wave struck. Hissing, seething water poured in cataracts upon the lower decks; upflung spray drenched us to the skin. The ship reeled, staggered, then righted herself. A second and a third wave hurled themselves against her, but each was smaller than the preceding, and presently the vessel was again riding easily and smoothly upon an almost calm sea.

"Close shave, that!" exclaimed the officer, as he rushed forward to ascertain what damage had been done.

"I'll say it was!" cried a passenger. "What was it? Did you see it?"

"Another meteor," I suggested, "must have struck the sea near us. It——"

A terrified scream from a woman interrupted me.

"Look! Look!" she shrieked. "Another!"

We rushed to the rail. Across the sky another blazing, fiery mass was rushing. For an instant we held our breaths, speechless, terrified. With a roar that was like a distant railway train, the meteorite swept overhead; the sea and the ship were bathed in green light as bright as mid-day. The thing receded, the light faded, and we breathed a concerted sigh of relief. A moment later a brilliant flash, like lightning, illuminated the southern horizon, and we heard a faint detonation.

"Struck somewhere," said a passenger. "Wonder where?"

"Looks as if the blamed things had started again," said another. "Well, thank God they missed us!"

The rest of the evening was spent in talking of the meteors. Discussion grew warm, and voices rose high in the smoking-room as the men argued, theorised, and contradicted. But as no more

meteorites fell, we rose, one by one, and retired.

The next morning, as I stepped from the alleyway on my way to the dining-saloon, I found an excited group before the wireless bulletin.

"My God!" I heard someone exclaim.

"Awful!" cried another.

"Heard the news, Doc?" shouted a young engineer, as he caught sight of me. "That meteor last night hit Valparaiso!"

I pushed my way through the throng, and gasped as I read the almost incredible news that had been radioed from Santiago. A giant meteor had fallen in the heart of Chile's great seaport. Practically the whole of it was in ruins. Buildings upon the steep hill-sides had toppled over and buried the lower portion of the city. Vessels at anchor in the harbour had been sunk or wrecked. All communication had been cut off; for the city was on fire, a seething furnace, impossible to approach. At imminent risk, planes had flown near it, had circled it, and returned to report the devastation. The loss of life, it was feared, was enormous. So far, no survivors had been reported, no refugees had reached the outlying towns or villages.

CHAPTER III

THE BOMBARDMENT CONTINUES

AT LAST, one of the meteors had scored a bull's-eye. The "one chance in millions" had occurred. Stunned, awed by the terrible catastrophe, the more because we had actually seen the meteor fall, and realising how close we had come to annihilation ourselves, we said and ate very little. Wondering what later messages would reveal, striving to convince ourselves that the loss of life might not be so great as was feared, we gathered in small, quiet groups. But when the next radio message was received, the news was even more terrible than the first.

The city was still blazing; no one had been able to enter or approach it, but it was thought that not a single inhabitant remained alive! More than this, all human life had been snuffed out on every vessel in the harbour, and hundreds of the inhabitants of suburbs within several

miles of Valparaiso had been killed. In Viña del Mar, almost a part of the city itself, crazed people were running about, dead bodies were everywhere, and others were still dying, sinking unconscious from shock or fright. Every effort was being made to rush doctors and supplies to the stricken district, but the electric power of the railway had been cut off, several bridges were down, and airplanes were the only means of reaching the locality.

It was ghastly, a disaster worse than the eruption of Mont Pelée in Martinique. No one could estimate the loss of life. It might be fifty thousand or a hundred thousand—perhaps more. But the destruction of Valparaiso was almost forgotten before we dined that night. That catastrophe paled into insignificance when a message was received from the Arlington radio station, informing us that Kansas City had been struck by yet another meteorite. Once more, that remote chance among millions had occurred. Again an aerolite, falling at random, had made a direct hit!

Later news was more reassuring, however. The meteorite had done comparatively little damage to the city proper. It had struck on the outskirts, destroying several mills and lumber yards, and killing hundreds of cattle; and, as in the case of Valparaiso, its heat had started a conflagration. Yet the loss of life seemed to have been out of all proportion to the damage to property. Hundreds of people had been killed, without any visible cause. They had been struck down, it was assumed, by the terrific concussion of the impact, by the blast of super-heated air, or—as many eminent physicians declared—by poisonous gases generated by the incandescent mass of metal.

But the worst effect, perhaps even more regrettable than the actual loss to life and property, had been the destruction of the public morale. Now that two cities had been hit, and thousands of lives taken by the celestial visitants, deadly fear had gripped the people. In every city and town throughout the civilised world, the inhabitants were living in momentary dread of being the next victims.

It was even worse than in London during the Second World War and the German air-raids. Then, the people were subjected to attacks by fellow-men, by

man-made explosives. They knew more or less when the attacks were coming; they had means of combating their aerial enemies; it was something they understood. But, now, no one knew where the next devastating meteor might strike; there was no means of avoiding them; they gave no warning and, coming from the heavens and being of more mysterious origin, they aroused the superstitious as well as the physical fears of the people. Added to this was the growing belief that they were being hurled at the Earth intentionally by the inhabitants of some other sphere. The fantastic theory appealed to the wondering, nervous masses, and despite the statements of scientists and the efforts of the authorities, the newspapers played up the notion to its spectacular limit.

Then, another mystery was added to what had again become the all-absorbing topic of the world. Planes had been sent in search of the various scientific expeditions which had gone to investigate the earlier meteorites, and several had disappeared. Others had returned bringing word that they had been unable to land, but had seen the bodies of men lying about their camps, exactly as I had seen Bixby's party. And when other planes had been sent out to search for the aircraft which, presumably, had crashed, they had returned with white-faced, wide-eyed men who told strange tales of seeing the missing machines standing undamaged near collections of corpses, and with no living men on board.

The question in everyone's mind was: what had caused these deaths? Why had everyone died who had approached a meteorite? Scores of scientists made reply, over the radio, and through the medium of the Press. Gases, they declared. Unquestionably, gases were given off by the fallen masses. Such immense amounts of metal would require days, even weeks, to cool off. The scientists had been too impatient to investigate the things, and had not taken into consideration the poisonous gases that might surround them.

No doubt, they added, the deaths of so many apparently uninjured persons near the towns where meteorites had struck, and the deaths of those on the Kenya train, had been caused by these same gases.

Henceforth, due precautions must be taken. Everyone was warned not to approach fallen meteorites, and it was even suggested that the authorities should issue gas-masks to the public in anticipation of more of them falling in inhabited districts.

THIS was the news that came to us as we steamed northward, after the destruction of Valparaiso and the disaster at Kansas City. Nearly every day, after that, a meteor was reported from some distant part of the world or by some ship. And then, the day we reached Balboa, came alarming news of a fatal epidemic that had broken out in Missouri, in Chile, and in various other widely separated localities; in fact, wherever a meteor had fallen in an inhabited district.

That it had some as yet inexplicable connection with the meteorites was the natural assumption, and prominent medical authorities openly expressed their conviction of this. They demanded rigid quarantines, calling for volunteers to combat the rapidly - spreading disease, and advising everyone who could to immediately move out of thickly-populated districts where meteorites might fall. But the public, fickle as always, and with that unaccountable antagonism for all things scientific, refused to listen; they refused to believe that the meteorites had any connection with the new and malignant disease.

The papers, quick to sense the popular feeling, poked fun at the doctors, declared it was merely their excuse, and offered rewards to any who could advance a tenable theory as to how a mass of meteoric iron could spread a malady. The whole thing, they maintained, was refuted by the truths of medical science. Diseases were caused by microbes. Germs could not exist when exposed to even moderate temperatures, such as that of boiling water; yet, if the physicians were to be credited, masses of metal heated to incandescence had been germ-carriers. It was preposterous, an insult to the public's intelligence.

Avidly we bought copies of the *Star and Herald*, the *Panama American*, and the various New York papers obtainable at Balboa, Ancon and Panama. No longer was the public divided into factions adher-

ing to the Martian or non-Martian theories of the meteors' origin. Now, it was the meteoric or non-meteoritic origin of the epidemic; and while scientists, medical authorities, officials and public bickered and argued, hundreds of people were dying every day, doctors and nurses were being decimated, and the world was in an uproar.

The controversy had even spread to the Canal Zone. The Medical Corps was demanding a quarantine; the Engineering Corps, to which the Governor belonged, was dead against it, and the civilian population was divided. An excited argument was taking place on deck, as we passed through Gatun Lake, between a pompous, red-faced colonel and a dark, saturnine army surgeon. Both were on their way to the States and, someone having informed them that I was the man who had seen Professor Bixby and his comrades dead upon the desert, they turned to me.

"What did *you* think?" demanded the Colonel. "What's *your* opinion of these meteorites carrying this strange disease?"

"I don't pretend to have one," I assured him. "I know that Professor Bixby and his men, as well as his animals, are dead, and that they were near the meteorite. At the time, I thought it strange that they should have died of thirst, but I don't pretend to know what killed them—whether it was gas, bandits, or disease. But I'm intensely interested. These meteors may solve the problem of what caused the disappearance of prehistoric American races—the Mayas, pre-Incas, and others. The fall of a few such meteorites, with similar accompanying phenomena, might—"

But I got no further with my own pet theory, which had been simmering in my mind for some days past. One of the passengers came hurrying up.

"Stuttgart's gone!" he cried, excitedly. "Just had a message. Not a stone left standing, every soul wiped out!"

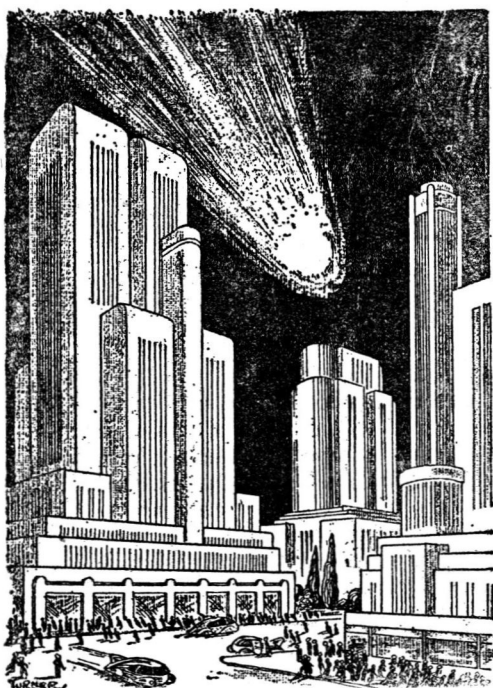
AT CRISTOBAL, we had confirmation of this latest and most terrible disaster. An enormous mass of incandescent matter had fallen in the heart of the ancient city. The concussion had been so terrific that windows had been shattered in Berlin, in Brussels, in Paris and Milan. The light, as it swept to earth, had been dazzling from Naples to London;

from points in Asia, Scotland and Egypt had come reports of seeing it, and of hearing the explosion. It was undoubtedly the largest meteorite that had yet fallen, and the entire world was awed by the appalling catastrophe. Where was this destruction to end? What city would be the next to suffer?

Terror reigned. . . . What of that millionth chance? the public and the Press demanded of the scientists. The people clamoured for protection; called upon their governments to do something to avert the calamity threatening the world, and in the next breath declared it was useless to attempt anything, as the world was doomed. Thousands left the cities and camped in the open, seeking the comparative security of plains, woods and mountains. Law and order were rapidly vanishing. Fear, superstition and religious mania supplanted them.

As we steamed across the Caribbean and up the coast, each day brought news of more and more terrible destruction. Genoa, Berlin, Salt Lake City, Shanghai, Adelaide—each was devastated in turn. In the light of these dreadful catastrophes, the worst in the history of the world, no one gave any heed to the innumerable meteors that struck in uninhabited districts and in the sea. Hence, to the public, unaware of these harmless falls, it appeared as if the meteorites were aimed, with supernatural accuracy and diabolical cunning, at the centres of civilisation. And the immediate loss of life due to the impact of the colossal things was much less than that from the deadly epidemics which invariably succeeded their fall.

There was, however, one ray of hope, one piece of good news, in the midst of this blackness of despair. It had been proved that the strange malady was not contagious: it did not spread beyond a limited area of a few square miles about the place where a meteor struck. Doctors, nurses and others who had gone to the assistance of stricken districts had, it is true, fallen victims to the fatal sickness; but the medical authorities pointed out that, if the malady was the result of some localised effect of the meteorites, this was to be expected, and they proved beyond question that if people within the affected areas were quickly removed to other localities—even but a few miles away—



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they usually recovered, and mostly showed no ill effects. A few died but, as a rule, lassitude, exhaustion, occasional delirium, or a comatose state lasting only a few days, were followed by complete recovery.

Even the public became convinced, at last, that the affliction was the result of some germ or gas from the meteorites, and that if one fell, their safety lay in hurrying from the scene instead of remaining to save their effects or the injured. Hurried arrangements were made with this end in view, and every city was in the position of one threatened with bombardment by an enemy. No one knew when a meteorite might fall, no one could forecast where it might strike, and there was no way of averting it; but the epidemic that would follow could be checked, could be fought.

Near every great city and the more important towns, bodies of soldiers and volunteers were stationed, equipped with ambulances and every facility for life-saving and rapid transportation, ready to rush all survivors from the scene if a meteorite should fall. And every spot

where one had struck anywhere in or near an inhabited district was surrounded by armed troops or police, to prevent anyone approaching the danger zone.

Had it been possible to secure portions of the meteorites, scientists might have been able to discover the source of the deadly effects, and to devise some means of counteracting them. But, so far, every attempt to secure a fragment had been futile. Several daring spirits had tried to approach the fallen masses, wearing gas-masks and germ-proof clothes, but in every case they had been struck down before they could reach their goal. Various devices had been employed in an attempt to render the horrible, death-dealing masses of metal innocuous. They had been drenched with the most powerful antiseptics and germicides, but without result. Planes, flying high above them, had dropped great numbers of bombs whose explosions had hurled hundreds of tons of earth upon the meteorites, burying them completely, and still without in the least affecting that invisible area of death which extended for a mile or more in every direction.

CHAPTER IV

THE WORLD CRISIS

AND daily, nightly, the meteorites continued to fall, sometimes singly, sometimes several at a time. Several were seen from our ship, some far distant, some uncomfortably near. By the time we reached New York, half a dozen more of the world's greatest cities lay in ruins: Paris, Dublin, Leningrad, Yokohama, Benares, Cairo and Capetown. The morning after I arrived in New York, the papers announced the destruction of Buenos Aires. The following day it was Bogota; the next, Rio. Then, two days without a new disaster; and then Santiago, Lima and Quito.

Suddenly, the world awoke to the fact that the meteorites seemed to concentrate their fearful destructiveness on definite areas in turn. Let a city in Europe be destroyed, and for several successive days other European cities would be wiped out. Then a city would be annihilated in South America, and others would follow in rapid succession. So far, the United States had

been particularly fortunate. Only Salt Lake City, a portion of Kansas City, and some smaller towns had been destroyed. But at any time, any day, it might be our turn; and the destruction of one city would, it was believed, presage the destruction of a dozen more.

No wonder the people were cowed with fear. No wonder they could not work, could not think of anything else but the awful fate that might await them. And so strangely does darkness affect human beings that, throughout successive nights, millions of people remained awake, anxiously watching the heavens for the brilliant light that warned of a descending meteorite, despite the fact that by far the greater number had fallen in broad daylight.

And then, on the 18th of September, the expected blow fell. Throughout the length and breadth of the United States, the Sun was dimmed by the blinding flashes of terrible light, the air was filled with the thunderous reverberations of falling meteorites and the terrifying concussions as they struck the earth. On every side, flames and dense clouds of smoke arose, the ground was torn up, forests were levelled by dozens of the giant missiles; and when at last the bombardment ceased, San Francisco, Richmond, Detroit, Springfield, Buffalo, New Haven, Concord, Saratoga, Dayton, Trenton, Atlanta, Biloxi, Tucson, Dallas, Denver and Seattle lay in ruins.

So terrific, so indescribable, was the loss of life and property that only a brief paragraph in the papers reported the fact that the Panama Canal had been completely destroyed, that Gatun Lake had been transformed to a vast, muddy, pestilential plain, and that thousands of men, women and children had been killed upon the Isthmus.

Everyone, even the most unimaginative, now believed that the end of the world had come. All hope was abandoned; for in the face of such a tremendous threat, human beings were helpless. Yet all who had the means sought to escape from the accursed land. Every available ship in every remaining port was filled to overflowing with refugees, fleeing they knew not where, seeking wildly, hopelessly, to reach some spot where the blazing destroyers would not strike.

IT WAS at this moment of crisis, when civilisation seemed doomed to be wiped from the face of the Earth, when the world was aghast at the prospect of such a stupendous, overwhelming catastrophe, that Paul Henderson appeared upon the scene. One day he was an inconspicuous citizen, unknown outside his limited circle of friends and associates; the next, he was the most famed, most discussed man in the entire world. In every country, every newspaper blazoned his name; hundreds of millions of people were familiar with his face and features. From an obscure author who wrote imaginative fiction based on fact, and an amateur scientist, he rose overnight to world-wide prominence, to be hailed as the saviour of the Earth.

An article in the *New York Times* accomplished the miracle. Quietly, unobtrusively, he had been working for weeks along unique and original lines. He had formulated a theory, had experimented, investigated, until he had convinced himself that his theory was correct; and then he had called on the editor of the paper, had expounded his theory, related the story of his activities, and given a summary of the results. No sooner had the *Times* published the astounding story than it was promptly transmitted to every news organisation throughout the world, and broadcast from every radio station that still remained in operation.

Henderson, at the risk of his own life, had secured samples of the meteorites. That he had succeeded in doing so, by using safeguards designed by himself, had proved the truth of his theory. The deadly character of the meteorites, he thought, was not due to gases nor germs. It was the result of some mysterious ray or vibratory wave, a discharge of electrons from the meteors. Confident, that he was right, he had devised a costume and mask that were impervious to all known rays, and had ventured cautiously within the danger zone of a large meteor that had fallen in the Adirondacks.

He had felt no ill effects and, a few days later, had approached even nearer to the thing. This time he felt ill, had experienced a roaring in his ears, partial blindness and other alarming symptoms. He had, however, quickly recovered, and realising that his costume was not com-

plete proof against the discharge from the meteor, he devoted several weeks to improving it. Then, he once more approached the mass. This time he had felt no effects whatever, had actually reached the meteorite and, with great difficulty, had chiselled off a small portion. For several days after, he had been prostrated, but no sooner had he recovered than he again buried himself in his laboratory, studying and experimenting with the only known specimen of the meteorites that had wreaked such havoc on the world.

His results confirmed his theory. The tiny bit of meteoric material emitted a terrific discharge of waves. Placing it near a live rabbit, he had seen the creature die, had dissected it, and spent days and nights making a microscopic examination of its vital organs and tissues. He had determined conclusively that the brain was affected; and he reasoned that the discharge from the piece of metallic rock completely altered the molecular structure of the brain-cells by upsetting the arrangement of the molecules, and perhaps of the atoms and their electrons.

"But," to quote the article in the *Times*, "Mr. Henderson was not yet satisfied. He had risked his life to secure the sample by means of which he had established the validity of his theory. He had convinced himself of the cause of death, the action of the fatal rays. But could he be sure that all the meteors possessed the same characteristics and emitted the same rays? Once more this daring man took his life in his hands, and entered the dread area of death surrounding another meteor. If his hypothesis was correct, if all of them were alike, he was safe; for he had perfected his ray-proof costume until tests with the fragment he had secured had proved it one hundred per cent resistant. But if he was wrong, and the vibratory waves from this second meteor varied in the slightest from the first, he would certainly have sacrificed his life for the sake of humanity.

"The world may be thankful that he was right. He secured more specimens, continued his experiments, and now is positive that, equipped with his protective device, human beings will be immune to the deadly rays. Moreover, he has discovered that animals, even when apparently dead from the effects of the rays,

may be revived and show no indications of ill-effects. This, Mr. Henderson accomplishes by means of a powerful electric current so designed as to create a vibratory wave of incredibly high periodicity, which appears to have the property of reorganising the disarranged brain-cells.

"We are confident," the *Times* declared, "that Mr. Henderson has made a most important discovery, which may well prove the salvation of the human race. And, like every epochal discovery, it is really extremely simple. It is, indeed, strange that among all our distinguished scientists, medical men and technical experts, none had thought of a deadly emanation as the basis of the fatal area about the meteorites; the more so, as the death-dealing discharge from radioactive minerals is so well known. So many deaths have, in the past, been due to the destructive action of radium on tissues and bones that it is surprising—now that Mr. Henderson has announced his remarkable discovery—some scientist has not suggested the celestial destroyers might contain radium in sufficient quantities to cause instant death to human beings.

"That no such theory was advanced was doubtless due to the fact that the ray discovered by Mr. Henderson acts only upon the brain, and leaves no trace that is discernible to the naked eye. But although this discovery does not relieve the world of the constant menace of descending meteorites, will not help us to remove these irresistible agents of destruction, nor throw any light upon their origin or cause, yet it will undoubtedly be the means of greatly reducing the loss of life caused by the hitherto mysterious emanations which come from them when they have fallen. Mr. Henderson is the greatest benefactor of the human race for countless centuries, and gratitude to him should fill every heart throughout the entire world.

"We call upon our Government to take steps immediately to provide every citizen with the ray-proof equipment designed by Mr. Henderson. Every moment's delay may mean the loss of perhaps thousands of lives. No human power can control the descending meteors. To-night, to-morrow, one may destroy Washington or New York. To delay is not only dangerous; it is criminal.

Every man who opposes such a measure, who does not exert all his efforts to save humanity from imminent destruction, is a potential if not an actual murderer. The people of all nations must rise and insist that every factory, every laboratory, and the whole resources of every country be devoted to the manufacture of the ray-proof equipment and resuscitating devices of Mr. Henderson, the man of the hour, the man of the century."

FOR once—wonder of wonders—the governments acted without delay. For once in the world's history there was no argument, no conferring, no slow unwinding of red tape. Politics, diplomacy, bureaucracy, everything that might hinder immediate action, was scrapped; for it was realised that whatever was done must be done at once. Every country, as its people demanded, devoted its whole energies to turning out the Henderson outfits. But progress was necessarily slow. The materials were scarce, new machines had to be devised; and though the outfits were produced at the rate of thousands a day, there were millions of people to be equipped. And a tremendous problem arose as to their distribution.

It had been agreed by all nations that the outfits should not be sold, but should be issued to the people without charge; that there should be no restrictions or duties on them, nor on any of the materials used in making them. The whole world was working day and night to save humanity; the whole world was, for once, united in a common cause. But to distribute the outfits to some individuals and not to all would be considered unfair discrimination. Those without them would be exposed to the death rays, while those equipped would be immune. The only solution was to wait until enough outfits were ready to equip every inhabitant of each city at once, and to take the cities in the order of their size and importance.

Naturally, this aroused controversy, ill-feeling, and indignant protests. An unimportant town was as liable to be struck as a great city. The smaller communities pointed out that New York, Boston, London, Rome, Madrid and other capitals still remained untouched, while scores of lesser cities lay in smouldering ruins.

Why, they demanded, should they be exposed to death, while others were comparatively safe? But the cooler-headed, more rational view prevailed. The great cities, it was argued, were more important. If they were destroyed, there would be no hope for the others, as there would be a curtailment, if not a cessation, of the manufacture of the outfits.

Meanwhile, the production of the Henderson resuscitating apparatus had gone rapidly ahead. Within a month every city and town in America and Europe was provided with one or more of the devices, the number varying according to the population; and as each city had organised a corps of specially trained men, equipped with ray-proof outfits, whose duty it was to operate the resuscitating apparatus in case of need, the public regained some confidence.

Meanwhile, too, Henderson himself had been laden with honours, with decorations, degrees and titles. He was a Sir, a Chevalier, a Professor, a Doctor, a Marquis, an Hidalgo and a score of other exalted personages all in one. Gifts varying from motor-cars to mansions had been pressed upon him; a special office with an attendant salary almost equal to the President's had been voted him by his own Government, and foreign potentates and powers had likewise hastened to reward him.

But he scarcely realised all this. For the meteorites were still falling. City after city and town after town were being razed throughout the world; and while the loss of life, thanks to Henderson's discovery, had been minimised, still thousands were being killed and billions of dollars' worth of property destroyed. And the discoverer of Henderson's Rays worked day and night on a new theory, a new hypothesis. He had found a way to protect human beings from the deadly rays of the meteorites. Could he not find a means of protecting the world from the meteorites themselves?

CHAPTER V

HENDERSON'S PROBLEM

IT SEEMED, on the face of it, an impossible task, something far beyond human capacity. But Paul Henderson was the type of man to whom nothing

appeared impossible. No one was more appreciative of the marvels of science, nor believed more earnestly in its future developments and wonders. For years he had been accustomed to dream of that future, to imagine accomplishments beyond the conception of ordinary men; to visualise seemingly impossible things, and to explain them along scientific lines in his stories.

Here, ready-made, in actuality, he had a situation more dramatic, more intense, and far more mysterious and insoluble, than anything he had ever imagined in his wildest fancies. Could he not, he asked himself, treat it like one of those fancies? Could he not work out the details, little by little, as he would the ideas in a story, and reason from effect to cause? And, once he had discovered the cause, would it not be possible to find a remedy? He believed it would.

He had followed this method in his successful search for an explanation of the fatal effect of the meteorites. If it had worked in one case, why not in another? He shut himself up and concentrated his mind on the problem. He covered hundreds of sheets of paper with notes, data, possibilities, the wildest of fancies and suppositions. And slowly, gradually, out of the mass of conjectures, reasonings, facts, and theories, certain undeniable truths emerged.

Coincidence, that useful accessory of the fiction writer, had, he knew, its limits. Coincidences did not repeat themselves over and over again; they were the exception rather than the rule. Could a coincidence account for so many cities being struck, when there was so much more unoccupied territory where they might have fallen? He mentally decided, no. Admitting this, could the laws of chance explain the indisputable fact that there were well-marked periods of meteor-falls, and that each of the bombardments was centred upon a definite and comparatively restricted area of the Earth's surface? Again he shook his head.

If the Earth was passing through an enormous meteor swarm or through the tail of a comet, as many scientists claimed, it might account for the periodic showers, but it could not account for the other facts. The Earth was whirling about on its axis as it rushed along its orbit, and

the falling meteorites, if left to chance, would pepper its surface indiscriminately. There was not one chance in millions—he recalled the confident words of the astronomers—that they would strike buildings or towns; and there were still more remote chances of their striking several towns in one portion of the Earth's surface. And yet—he referred to his carefully tabulated data—of the thousands of meteorites that had been reported, fully thirty per cent had made hits on towns, cities or thickly inhabited districts.

"No!" he exclaimed, excitedly. "It is *not* chance—it cannot be. And if they are not subject to chance, then, of a certainty, they must be directed by something—by some power, some purpose, some intelligence! Yes! I feel sure of it. But who will believe it? And whence do they come? Who, what, is the power that is hurling these awful projectiles at the Earth?"

NOW, although Henderson possessed a far from superficial knowledge of most sciences, he had no practical experience of astronomy, upon which he must depend largely in his attempt to solve the problem he had set himself. Still, he had at his disposal all the astronomical observations and data that had been published on the meteorites from the time the first one had fallen in Chile; and he felt confident that, by correlating and studying these, he might bring some order out of the astronomical chaos and arrive at some definite conclusion.

It was at this time that I first became acquainted with him. We met at the home of a mutual friend, and were soon conversing earnestly. Perhaps it was due to the fact that I had reported the first of the meteors, or that I am something of a theorist and scientific iconoclast myself; but, at all events, he evidently took an immediate liking to me—a feeling which I reciprocated—and I was glad to accept an invitation to visit him at his home. He was greatly interested in my theory that the mysterious and abrupt termination of prehistoric American cultures might have been caused by similar meteoric visitations in past ages.

"But," he objected, when I had explained this to him, "if those civilisations were wiped out by meteorites, why have no traces of such meteors ever been

found? They would be as enduring as the stone sculptures."

"That," I replied, "has always been one of the strongest arguments against the theory, but your own discovery has done away with it. Ordinary meteorites are, we know, practically indestructible, and will remain unaltered for immeasurable periods of time. But these aerolites are not of the ordinary type. You have proved that they are continuously emitting radiant energy, and this discharge must of necessity result in the diminution of the original mass. This is an inflexible law of nature, and while the loss to radium, for example, is so slight as to be scarcely detectable, the loss in the case of these meteoric masses may be extremely rapid. Therefore, is it not probable that any meteors, similar to these, which may have fallen in past ages would have completely disintegrated and disappeared in a few thousand years?"

"Well, I hadn't thought of that!" he admitted. "It will be interesting to find out. I'll weigh the pieces I have, and we'll soon see."

The result of the tests was to prove conclusively that the shrinkage of the material was, comparatively speaking, very rapid. The fragments in Henderson's laboratory had already lost nearly one ten-thousandth of their original weight.

"I guess you're right," he declared. "At that rate, the decrease would be approximately one-thousandth in a year, and a thousand-ton meteor would disappear completely in ten centuries. I wonder if there might have been regularly recurring cycles of these falls? As you say, if there had been, it would explain a lot of mysterious things of the past—all those old legends of Sodom and Gomorrah, the Earth being destroyed by fire, lost continents, and so on. . . ."

"But, of course, there's no way of proving such a theory. And what we want to know, at the moment, is just where these things come from. What I'm now trying to prove is whether these remarkable falls of even more remarkable meteorites are natural—if they are peculiar to some region of cosmic space through which we are passing—or whether they are actually being projected at us, with malice aforethought, by intelligent but vindictive beings on some other planet."

Before I had time to express my surprise at his taking such a fantastic idea seriously, he went on:

"Do you know that if the destruction they are causing continues at its present rate, every town and city on Earth will have been levelled to the ground within the next fifty years?"

I gasped. "No, I didn't realise that," I admitted. "But," I added, "is it possible they could continue to fall at such a rate for that long, or even for much less a period?"

"I don't see why not," he replied. "If they are natural, and we are passing through a vast aggregation of them—through a disrupted star, as Professor Dutcher claims—they might go on falling for fifty years, or even longer, for they may cover millions of miles of space. And if, on the other hand, they are being hurled at us from some other planet—if we are being deliberately bombarded by alien entities with the intention of destroying us—they will continue to fall until our enemies have exhausted their ammunition or they have succeeded in their devilish design."

"Do you really believe that is the solution?" I asked, incredulous.

He nodded. "I'm practically certain of it," he declared. "The very nature of the things suggests that explanation, rather than any other, for these are no ordinary meteorites. Even granting the possible existence on some other world of beings perhaps immeasurably superior to us in intelligence, I know it seems the wildest of fictions to imagine them bombarding their neighbours, millions of miles distant. But it would have seemed as much like impossible fiction had I or anyone else, previous to 1914, suggested that human beings might hurl explosive shells at an enemy fifty miles away. What is impossible fiction to-day is fact to-morrow. Why, if, only a year ago, I had written a story describing how half the Earth's cities were laid waste by falling meteorites, would anyone have believed it possible?"

"No," I admitted, "they wouldn't. It still doesn't seem credible to me yet, even though it has actually happened and is still happening. But the idea of their coming from—from Mars or somewhere . . . !"

"What's more," he went on, "having satisfied myself as to their artificial nature,

I'm pretty sure that the fatal radiations which they give forth do not, in themselves, originate in the meteorites."

"What!" I cried. "But I thought that's just what you had proved to your own and everybody's satisfaction. Then where in Heaven's name do they come from, if it's not from the meteorites?"

HE SMILED. "When you listen to a receiving set and hear sounds brought to you by radio waves, do those waves originate in the set?"

"Of course not," I replied. "They originate in the transmitting apparatus."

"Exactly!" Henderson exclaimed. "And that, I feel sure, is where the deadly waves from these meteorites originate—in the transmitting apparatus on another planet!"

"My God!" I was amazed at the audaciousness of the man's imagination. "You mean to say these horrible things are not only hurled at us as projectiles, but are capable of receiving and re-transmitting waves that destroy human life?"

"That's precisely what I believe," he replied.

"But why?" I asked, seeing what I thought was a serious flaw in the idea. "Why shouldn't the inhabitants of whatever planet it is turn their rays on us directly? Why adopt that roundabout method?"

"For the same reason that we do not transmit our sound waves directly, without going through the process of transforming sound waves to electro-magnetic waves, transmitting the latter, and then, in a receiving apparatus, transforming them back to sound waves again. In other words, my theory is that the death waves cannot be transmitted through space—at least, for any great distance—but that they *can* be superimposed upon, or transformed into, some other type of waves; that these are transmitted through space, are received, transformed to death rays and discharged—perhaps tremendously amplified—by the meteorites."

"But," I objected, loath to admit such a terrible hypothesis, "to accomplish anything of that sort would require a complicated, delicate piece of mechanism, while these meteors are masses of solid metal which become incandescent, almost molten,

when they pass through our atmosphere and strike the Earth. How can a mass of metal do any of the things you suggest?"

"That's a question no one can answer," admitted Henderson, "any more than one can explain why a lot of our minerals and salts possess the properties they do. Why, I might ask, are some metals magnetic and some non-magnetic? Why do certain minerals always crystallise in the same complex forms while others vary enormously? Why should Rochelle salt crystals possess the power of amplifying sound? No one knows the why. We simply know that these things are, and make use of them, and that's all.

"Similarly, it seems to me, the devilish creatures who are trying to wipe out the civilisation of our planet are making use of powers and properties of substances of which we know nothing; and they're succeeding only too blamed well. It's up to us, Merritt, to get busy and stop 'em. You can't tell me there isn't a way, and you can't convince me that human brains are not as good as, if not better than, those of any monstrosity that may exist on Mars or Venus, or somewhere."

"I'm afraid I won't be of much use," I said, "but I'll be glad to help all I can. But can't we organise a corps of scientific men to work together on this problem? If two heads are better than one, two hundred, or two thousand, should be just so many more times better."

"No use," he declared, with finality. "I've tried it; the papers have tried it. What's the result? Discussions, controversies, ill-feeling among the scientists. They *won't* work together. Each has his pet hobby; each is jealous of the other, or ridicules him. And they all go off at tangents—get so interested in their own particular line of research that they can't think of anything else.

"I tell you, Merritt, the average professional scientist is the most impractical, narrow-minded, self-centred, unimaginative man on Earth! I'll agree that scientists have been instrumental in giving the world its most remarkable and useful things; but that was in spite of them, not because of them. How many scientists have been able to see the commercial value or practical importance of their discoveries? And the Lord knows how many discoveries they have made that might have

been helpful to humanity, but have been for ever lost and buried because the discoverers couldn't see beyond their noses.

"The trouble is that scientists won't believe anything they haven't proved; and yet the whole history of science shows that as fast as some scientist proved a thing, another proved something that disproved the other chap's proof. You'd think that scientists, knowing the almost unlimited possibilities of science, would be the greatest of visionaries. But they're not. They refuse to believe that this, that or the other can be, or may happen, because they haven't proved it can or may.

"What did the scientists say about these meteorites? That there wasn't one chance in millions of a city being hit. That the 'shower' would be of short duration. Yet, up to date"—he referred to his notes—"up to date seven hundred and eighteen meteors have been reported, and ninety-two important cities and one hundred and thirty-three towns and villages have been hit—nearly one-third of the meteors have struck towns. And instead of being of 'brief duration,' the damnable things have been coming down almost continuously for the past eleven weeks! Yet if I should announce my belief that they come from some other planet, if I should make public my theory as to the real source of the death-waves, every scientist in the world would scoff at me and call me a charlatan, or worse."

"I admit that a lot of what you say is true," I said; "but how about the practical men, the imaginative men like yourself, who would be prepared to test a theory, no matter how extravagant, and who could work in conjunction with you?"

"They're all too busy with other matters," objected Henderson. "No; this is a one-man job—or, at least, a two-man job. A crowd would only spoil things, I'm afraid. Everyone would have different ideas; they'd all want to work along their own lines, and we'd get into a dreadful mess. You see, Merritt, the way I look at a theory—especially if it's a wild and seemingly impossible one—is that it's a kind of inspiration. It gets into a fellow's head, and he's got to work it out himself. And now I must get down to checking up on what all these astronomers have to say about the latest crop of meteors. . . ."

CHAPTER VI

THE MYSTERY OF THE METEORS

I LEFT Henderson deep in his researches and calculations. He was, I thought to myself, a most remarkable man, whose brain was not only a veritable storehouse of the most diversified general knowledge, capable of drawing upon that vast accumulated store when necessary, but quite equally capable of ignoring all the facts it contained and soaring unimpeded to the greatest heights of imagination. I chuckled to myself as I recalled his tirade against scientists, for if ever there was a true scientist, he was one himself.

But I could not blame him for being a little resentful at the behaviour of scientists in the terrible crisis through which the world had been passing for the last eleven weeks. Not a single statement they had made had been borne out; they had, by their own disagreements and contradictions, tacitly admitted that they were at an entire loss, and yet they had refused to listen to any suggestions or to consider the theories of others. Even when Henderson had come forward with his theory, supported by incontrovertible proofs, they had been loath to admit that he was right. He had been praised, honoured and rewarded by the public and its governments, almost at once; but the scientific bodies had been slow to recognise what he had done.

He was a modest man, and like all shy and retiring men, he was very sensitive, and while he showed no disposition to boast of what he had done, he naturally resented the attitude of professional scientists towards him. And I fully appreciated the fact that, were he to broadcast his present apparently wild theory, he would be laughed at and his further efforts would be ridiculed. That, I felt sure, was why he would not adopt my suggestion to enlist co-operation in trying to work out his new theory. He was afraid, if it proved untenable, of the "I told you so's" that would result.

It certainly did seem a preposterous idea; and yet, somehow, I had a feeling that Henderson would again prove to be right. It was not, as I have indicated, the first time it had been suggested that the meteorites were being projected at the

Earth from another planet, and there were thousands of people who still believed in that explanation of their origin. But, as the weeks had passed, interest in that aspect of the crisis had waned. Indeed, the attitude of the public, the reactions of the masses, had undergone a complete change. At first there had been wild panic, crazed terror, nerve-racking suspense. The whole world had been upset, disorganised. But so adaptable is man to his environment that, in a remarkably short space of time, people had become more or less accustomed to the unprecedented conditions.

Just as, in the days of the Second World War, people became inured to constant air raids, so now the people regarded the total destruction of towns and the almost continuous flashing, detonating discharges from the sky as everyday events. A few weeks earlier, the news of a meteorite striking a town was announced by glaring headlines in special editions of the papers; crowds gathered and, in excited tones, discussed the latest disaster, and people lived in constant dread. But now, unless the victim was a most important city, a few paragraphs would suffice for it; it scarcely aroused comment on the streets, and people went about their business and slept as soundly as though the world were quite normal.

But Henderson's revelations as to the rate of destruction had astounded me. If it were true that the whole of Earth's centres of population were doomed, it was as well that the public was now calm, complacent, and blissfully devoid of worry over where the next aerolite would fall. Indeed, towns and cities were now being rebuilt, in sublime confidence that, like lightning, the meteorites would not strike twice in the same spot. But the destruction was exceeding the construction and, if Henderson was right and they continued to fall, it would only be a question of time before the world lay in ruins.

It was an appalling thought; the more so, perhaps, because the devastation was proceeding so gradually that it was not obvious. It was like some terrible, incurable disease; and there would come a day when, with a shock, the world would be forced to accept the fact, hitherto concealed from it, that it was doomed. Perhaps it was the realisation of this slow

but inexorable fate that convinced me there was a malicious, carefully planned purpose in the meteoric bombardment. Certainly, it did not seem possible that mere chance could have caused the amazing percentage of hits, which I had never realised until Henderson had given me the figures. Nearly one-third of the meteors had struck towns!

I remembered that humorous magazine article. Poor marksmanship! Why, the meteors were making a better record of hits than any gun-crew in the United States Navy! That alone ought to convince the most sceptical. Stray meteors could not, by any possibility, do that. Beyond a doubt, I decided, the things were being projected at us from some other planet, and fired with the most amazing accuracy. What master-minds must be behind those guns, to direct thousand-ton masses of metal through millions of miles of space and strike such infinitesimal targets as cities covering a few square miles of the Earth's surface!

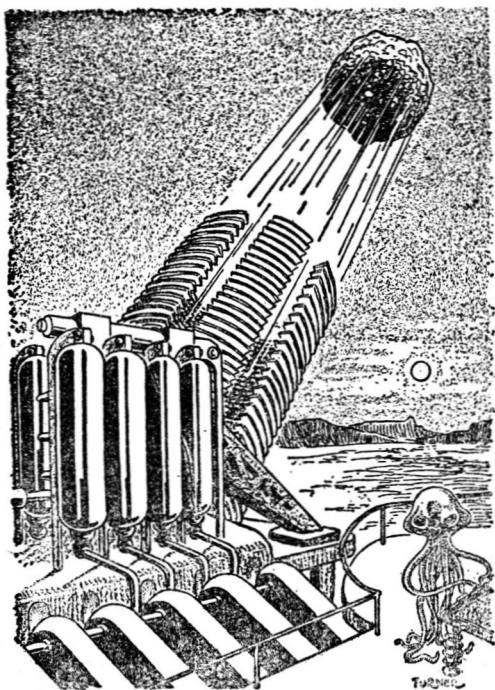
And what hope had we of escaping the fate designed for us by such superhuman beings? What chance had we to compete with them, to defy them, to outwit them? And that mysterious, diabolical death-wave! Yes; somewhere in the heavens, upon one of those distant worlds gleaming like jewels in the velvet sky above me, sentient, intelligent and horribly inhuman beings must even now be watching us, plotting to destroy us, sending those death-dealing, invisible waves through space. But, thanks to Henderson, we had conquered those, rendered them harmless. I stopped in my walk, looked up at the brilliant stars, and shook my fist at them savagely.

"Yes, by Heaven!" I cried. "We've beaten you at that game!"

Just below Mars, a tiny point of light appeared in the sky. Like a distant airplane, it moved slowly across the heavens. Swiftly it increased in size. The heavens seemed to pale. In a dazzling flash, it vanished beyond the distant horizon.

I laughed hoarsely. "All right, you beasts. Send them down! Do your worst! But we'll best you yet!"

The only answer was a dull, distant detonation, the muffled explosion of the falling missile, as I now firmly believed it to be.



WHAT MASTER-MINDS WERE BEHIND THOSE GUNS,
WHAT INHUMAN BEINGS PLOTTING TO DESTROY US!

BY THE next morning, another twenty meteorites had fallen upon the harassed world, more than during any previous twenty-four hours. And nine had struck cities and towns: the average of hits was being maintained. Fortunately, no important nor very large cities had been destroyed, but north-western Pennsylvania had been laid waste. As I read the news, I wondered when New York would fall, when Boston would be levelled, when London would be wiped out. My thoughts were interrupted by the telephone ringing. Henderson's voice greeted me.

"Good news!" he exclaimed, jubilantly. "Come on over. I think I've got it."

I lost little time in reaching his home, a remodelled farm in Westchester.

"I suppose you've read the papers?" he inquired, as he met me. "Twenty-three of 'em in the last twenty-four hours, and nine bull's-eyes! I'll bet you couldn't guess where I spent the night. After you left, I did a lot of figuring, and then I went over to see old Fothergill. He's an astronomer, you know; not a scientist"—with a laugh—"just an amateur.

Astronomy's his pet hobby; he's as rich as the devil, and spends fortunes on it. He's the fellow who writes on 'House-top Astronomy,' and runs that column in the *News*, 'Stars of the Month'—signs himself 'Aries.'

"Anyway, I told him of my idea and said I wanted to use his telescope—with his help, of course—and we spent the whole night watching for meteors. We spotted seventeen, and watched eleven—couldn't follow them all at once—and every one of the eleven came from the same point in the sky and followed exactly the same course."

"Fine!" I enthused. "Did you come to any definite conclusion as to where they originated?"

Henderson grinned at my impatience. "Not then, we didn't. You see, the things don't exactly travel in a straight line. They would have to be aimed way ahead of our world in order to hit it, and their paths would be curved, like those of ordinary meteors. And, of course, they're not visible until they're quite close to us—within our atmosphere—and even a thousand-ton meteor is a pretty small thing to see a few miles away. So, you see, when we catch sight of 'em, they're on the last lap of their journey and the final curve of their trajectory, and the place they come from might be in an entirely different part of the heavens."

"Then how are you going to find out where they come from?" I demanded.

"I'm afraid I couldn't," admitted Henderson. "But that's where old Fothergill comes in. He's steeped in astronomy, and a wizard at mathematics, and calculating parabolas is his greatest stunt. Why, if he saw a snake wiggle ten feet, he could work out every wiggle it had made for half a mile back! He sent me the results of his calculations just before I phoned you; and according to him, the curves of every one of those eleven meteors, if traced back through space, leads slap bang to Mars!"

"By Jove!" I exclaimed. "Then you think they *are* hurled at us from Mars?"

"I'm sure of it!" he declared. "But, to make assurance doubly sure, I've given Fothergill all my figures and data on the past falls. He's going to go over them, check them up, and try to work out the curves and see if they agree with last night's. Then we'll be dead certain."

WHEN, soon after noon, Fothergill's results arrived, there was no doubt about it. From the casual observations of the astronomers who had recorded meteors, and the meagre details concerning them, the millionaire amateur astronomer had proved conclusively that, in every case, the meteorites had come from practically the same region of the heavens, and that, in every case, that point coincided almost precisely with the position of Mars. But Fothergill had gone even farther. He assured Henderson—in whose theory he had now become intensely interested—that, with the knowledge they had thus obtained, it would be possible to forecast the locality where meteorites might be expected to strike on any given date.

"That," I declared, "is the most important thing yet, Henderson. If you and Fothergill can warn the public beforehand, it will save thousands of lives, even if it does not prevent the destruction of property."

"But none will believe it," he replied. "Even if the public has faith in such prophecies, the scientists and officials will pooh-pooh them."

"The only way to be sure of that is to try it and see," I said. "I admit that, in the beginning, no one would have listened to such theories, but after making your other discoveries and proving them to everybody's satisfaction, I think they'll have faith in you now. Besides, you've got Fothergill to back you up. Even if he's an amateur, as you call it, his knowledge of astronomy and mathematics is acknowledged by the most eminent scientists. They can't scoff at him, with his hard and fast facts."

So, the next day, Henderson announced his deductions to the world through the medium of the *Times* and other papers; but, as he had feared, and as I had not foreseen, with little result. To be sure, a large section of the public eagerly accepted his proofs, but a larger section scoffed at them, and once again Press and public entered into a controversy for and against the Henderson theory. Those in his favour demanded that steps be taken to protect life by following Henderson's suggestions; those on the other side insisted that it was all utter nonsense, and that, while they admitted he had benefited mankind beyond

estimation by his former discovery, he had over-reached himself by suggesting such a wild and untenable theory as the present one. Some even hinted that the affair had affected his brain, while one prominent daily suggested that, if Henderson could foretell where a meteorite would strike, he should go a step farther and inform the public how they could be prevented from striking.

"The one would be as sensible as the other," the writer declared. "Even in these days, there are limits to human credulity. We do not desire to belittle Professor Henderson's intelligence and attainments, nor do we overlook or under-estimate what he has given the world already; but, this time, we feel his imagination has got the better of his common sense."

"All the astronomers to whom we have submitted the matter agree that it would be utterly impossible for the inhabitants (admitting there *are* inhabitants) of Mars, or of any other planet, to project meteoric or other masses of metal through space so that they would strike the Earth. It would, they say, be like attempting to hit a small melon with a rifle bullet at a distance of several thousand yards. Even assuming that hundreds of thousands of projectiles were discharged from Mars in hopes that a few might by chance strike the Earth, it would be impossible to direct any of them so accurately as to intentionally strike a city. It would be beyond the capacity of any intelligence to compute the frictional resistance, the wind currents, and the thousand-and-one other factors that would affect the passage of a meteor falling through our atmospheric envelope."

"Regarding the mathematical data that have been submitted in support of the theory, we have been assured by the most eminent mathematicians that almost any theory may be mathematically proved, if the mathematician assumes a certain factor and works backwards from that factor. The whole thing is highly interesting and entertaining, and would form an excellent plot for a work of fiction which would outdo Verne and Wells; but, as fact, we cannot accept it. If Professor Henderson and his associate, Mr. Richard Fothergill, feel so confident of their discovery, we would suggest that they go a step farther and prove their claims by giving a forecast of coming meteors, and the cities that

are doomed—by the Martians—to be destroyed during the next few days.”

CHAPTER VII

FORECAST OF DOOM

TO MY surprise, such articles, with their insulting comments, criticisms and accusations, and the general disbelief and ridicule that Henderson's announcement aroused, did not appear to cause him pain. On the contrary, they aroused his anger, his resentment, and his scorn; and old Fothergill fairly raged. He had been completely won over to Henderson's ideas, had proved to his own satisfaction that they were right, and enthusiastically devoted all his knowledge, his time and intelligence to the task of establishing them.

“Fools! Idiots!” he cried, his grey hair and beard bristling. “Anything they cannot understand is impossible. Impossible—faugh! The only impossible thing in the Universe is to find a grain of common sense in the average human being. Intelligence—fiddlesticks! They haven't any. They're still running about, as purposeless as ants in a dung-hill. I'm not sure they deserve being saved from their own stupidity; that I'm not in thorough sympathy with the Martians. If they can observe us—as they probably can—we can scarcely blame them for wanting to annihilate us.”

“I wouldn't put it quite as strongly as that,” said Henderson. “I'm as disgusted as you are, but I expected it. It's not so much lack of intelligence as human self-conceit. Human beings have lorded it over Nature—upon Earth—for so long that they have acquired the fixed idea they are, literally, ‘Lords of Creation.’ They are puffed up, if unconsciously, with their own importance; they feel that the whole Universe is centred here on Earth, that they are the most intelligent, most important beings in the Universe. In their egoism, they cannot conceive of any being equal or superior to them; they cannot imagine any intelligent beings that are not patterned on the same lines as human beings. In fact, few can really conceive of intelligent beings that are not inhabitants of this planet.

“In the minds of nine hundred and ninety-nine persons out of every thousand, only one Being in the entire Universe is greater than mankind, and that is God Himself. They are quite ready to believe that God has seen fit to hurl these meteorites at the Earth, but they are not willing to admit that any other mortals are more intelligent, more powerful than themselves. That's the whole trouble, Fothergill. But we've got to convince them otherwise.”

“I'm afraid you'll have a hard time doing it,” I observed. “And, even then—even if you manage to convince the whole human race that these damnable things *are* being shot at us from Mars, I cannot see how you can stop them.”

“No, I admit we can't—yet,” he replied. “But if we could convince the disbelievers that we can foretell the danger areas on certain dates, we could save a lot of lives, as you yourself said.”

“Then, for Heaven's sake, why haven't you done it before?” I asked. “If you published a warning, and it was borne out, the public would be forced to believe.”

“We haven't done it before, for two reasons,” replied Henderson. “In the first place, Fothergill and I wanted to be absolutely certain that we could forecast accurately. And, in the second place, we were a little afraid of creating a panic. There are a lot of people who would go crazy if they had faith in our forecasts and believed their homes were doomed within the next day or two.

“But we shall wait no longer. We've convinced ourselves that we can prophesy pretty accurately—we calculated that last night's fall would concentrate on north-east Canada, and it did: Quebec, Halifax and part of Montreal went—and it's better to frighten a few hundred people to death than to have millions killed. We've worked out the probabilities of to-morrow's bombardment, and I'm going to publish it to-day.”

I gasped. “You really can tell what's going to happen to-morrow? Then, for God's sake, Henderson, tell me—what city is going to be hit?”

He smiled. “You see how excited you get over it, and you're not a nervous man. You can imagine what the effect will be upon others, particularly women. But I'm convinced we've got to use the homeo-

pathic principle. If our calculations are not at fault, you'll see by Thursday's papers that several of England's most important cities have ceased to exist."

WHEN the papers appeared with Henderson's statement that the meteorites falling on Wednesday would be concentrated on the British Isles, and that several Midland and northern cities would probably be hit, most people scoffed at the prophecy, regarding it as a joke or a hoax. Sporting people laid wagers on it. One paper, in an editorial, sarcastically thanked Henderson for being so considerate as to divert his Martian projectiles from the United States to England, and remarked that it was a great pity he had not made his "discovery" at the time of the Second World War, when he might have induced his Martian friends to devote their attentions solely to Germany. Many were loud in their denunciations, declaring that Henderson was a scaremonger; that if he were permitted to continue his activities, he would have the whole world in a state of hysterical fear, and that he should be restrained, or the papers forbidden to publish his prophecies.

In England, the feeling appeared to be divided between resentment that Henderson should have selected the British as the next to suffer and self-satisfied confidence that it was all nonsense. There was no fear, no panic, no nervousness. The race that had gone calmly on with its daily tasks despite continuous air-raids was not to be terrified because some "crank" overseas had warned them of an impending shower of meteorites. Nevertheless, thousands of the inhabitants of cities in the threatened area decided there might be something in it, and in motor-cars, trains, buses and on foot, sought the open spaces and small villages.

I do not, of course, know how the British people felt, as the time for the fulfilment of Henderson's prophecy drew near. But I know that *I* was excited, torn between doubts and fears. As far as I personally was concerned, it made very little difference whether England's Midland cities were, or were not, destroyed. Of course, it would be a lamentable and unfortunate thing if they were; but I, and the world, had become so accustomed to

its cities being wiped out that such disasters had, to a large extent, lost their horror. And, although it may have been selfish and inhuman, our feelings, when we heard of a city being struck elsewhere, were mostly of thankfulness that it was not our own.

But it was one thing to expect, on nine days out of ten, that news would come of some new disaster, and quite another to have the disaster promised and to be awaiting it. I wondered how the inhabitants of the supposedly doomed cities were facing it. I wondered what the effect would be if they escaped, and what would be the result if Henderson's forecast was fulfilled; and I wondered how many lives might have been saved if it was fulfilled. But, so confident was I that Henderson and Fothergill were right in their assumption, and so firmly did I now believe in the Martian origin of the meteors, that I was as certain Thursday morning's papers would tell of the disaster as I was sure the Sun would rise on that same morning.

And yet, when I glanced at the front page and saw the news staring me in the face, I could scarcely believe my eyes. Henderson had been right: his prophecy had been fulfilled. Sheffield, Kendal, a part of Leeds and Sunderland had been reduced to smoking ruins; several smaller towns had been utterly destroyed, and some five thousand lives had been lost. But, thanks to Henderson's warning—and the British Press unanimously gave him full credit for this—many more thousands had been saved from death.

Henderson's triumph was complete. Once more, he had convinced the world of the rightness of his theories. Criticism, ridicule and disbelief were transformed to praise, honours, almost adoration. He was again hailed as the greatest genius of the age, the hero of the hour, to whom the world looked for its salvation.

BEING the most prominent man in the world has its drawbacks. Henderson was deluged with telegrams, cablegrams, and letters; besieged by reporters and cranks. His home was surrounded by crowds, staring, curious, seeming to find immense satisfaction in merely seeing where he lived. Of course, Fothergill came in for his share of attention, since his name had been associated

with Henderson's. Henderson insisted that what had been accomplished was due more to the amateur astronomer than to himself; but the public, remembering what he had done before, were more ready to applaud their old hero.

By far the greater portion of the cables and radiograms came from England. Some were from the editors of the London papers, offering fabulous sums for articles on his newest theories and discoveries, or for forecasts to be published daily. Others were from high officials, expressing the Britishers' appreciation of Henderson's services in preventing greater loss of life; and he even received a message from Buckingham Palace assuring him in formal terms of the gratitude of the whole nation, as represented by His Majesty the King. But among the flood of communications were thousands of pleas, from all over the world, for Henderson to evolve some means of putting an end to the destruction by the Martian projectiles.

Many of these appeals offered him unlimited powers and resources for carrying on his experiments and investigations. The President called a special session of Congress to put through a Bill with the object of providing funds for this purpose; and, before the day was done, practically every other government had assured him of unstinted co-operation if he would devote himself to trying to devise some way of saving the world from its impending fate. At the same time, they besought Henderson and Fothergill to continue their forecasts in order that the doomed districts might be evacuated and the lives of their inhabitants thus saved.

But Fothergill was not yet appeased, by any means. The way in which the public had received Henderson's announcement, a few days previously, still rankled in his mind.

"We don't want their money," he claimed. "They'll need it all before they're through, to rebuild their cities. And they'll have to keep on rebuilding; for as fast as they build them, they'll be knocked over like toy blocks. If human beings are going to survive, they'll have to burrow into the earth. Stop the things! Good Lord! Do the fools think there's any power on Earth can stop them?"

"That's human nature for you—one minute denying the possibility of the real;

the next, asking for the impossible. But I'm willing to help them all we can. I'm ready to collaborate with Henderson in working out forecasts for weeks ahead, if we can. But not a cent of public money will be used. I've always wanted to spend some of my money for the benefit of the world, and now I have the chance. Whatever we do will be done with my money. You can tell them that, Henderson!"

"Never mind the financial end of it," said Henderson. "That can wait. The first thing to be done is to work out the forecasts as far in advance as possible, and then see if we can't think up some way of getting the better of the Martians."

Fothergill sniffed. "The first part of your remarks I fully concur with," he said. "But even your master-mind, your marvellous imagination, and your almost uncanny abilities will never, I am sure, be able to cope with the super-intellec[t]s that are directing these projectiles from Mars. So, I suggest that we eliminate any such ideas from our minds for the present, and leave them free to work on what is of paramount importance."

CHAPTER VIII

THE GREAT EXODUS

AS THE result of Fothergill's calculations, the papers throughout the world, on the following day, published a forecast for the succeeding week. Never before had the public fully realised what the bombardment from the heavens really meant; but now, as they read the prophecies and saw city after city doomed to swift extinction, the awfulness of the relentless destruction was brought home to them. People opened their papers in fear and trembling, dreading to see the name of their own city in the list, hoping against hope that it would not appear, and yet realising that, by its very appearance, they were, perhaps, being saved from death.

In addition to saving countless lives, the forecasts saved billions of dollars' worth of property; for no sooner was a city's probable destruction forecast than everything of great value was shifted from the city. All records, archives and art

treasures were kept in constant readiness for removal to a place of greater safety at a moment's notice, and every citizen was warned to be prepared to move, with bag and baggage, the instant his city was included in the list.

At first, the forecasts were only a few days in advance; but when Henderson and Fothergill, grudgingly, employed a corps of astronomers and mathematicians as assistants, they were able to extend the warning periods, and soon the papers were publishing the names of cities and districts likely to be devastated several weeks in advance. Hence, there was time to remove the inhabitants and the cities' treasured possessions to areas beyond range of the expected destruction.

When Boston was reduced to ruins, the remains were those of empty, deserted buildings. When West London was shattered, the Tate Gallery, the Houses of Parliament, Westminster Abbey and Buckingham Palace had been vacated weeks before. The loss of historical buildings and monuments was irreparable and beyond estimate; but the loss of life, records and valuables was happily negligible.

This wholesale evacuation of the doomed cities led inevitably to the erection of makeshift towns in the areas where the scattered populations sought refuge; and as it soon became evident that these new towns were very rarely included in subsequent forecasts, the people began to breathe more easily. To Henderson, this seemingly chance feature of the continued bombardment was most intriguing. He considered it was important, and after several weeks of silence, came out with a new announcement.

The Martians, he declared, could not, as had been thought, watch the Earth; at any rate, they could not distinguish details such as cities and towns. By some uncanny means, they knew the approximate location of every large city on the Earth's surface; and they had hurled their projectiles, with supernatural accuracy, at these—much, as he put it, as a long-range gun is aimed at an invisible target by means of a plotted map. But that they could not actually see the cities was, he insisted, proved by the fact that only two out of the hundreds of new, but quite sizeable,

towns had been struck, and these two had been so near other, older cities that it was probable they had been hit by accident rather than by design.

Herein, he stated, lay the safety—at least, for the present—of civilisation. Build new cities at safe distances from the former centres of population, and until the Martians had, by some strange means, discovered their location, they would be safe. No doubt, he continued, Earth's planetary enemies took it for granted that their projectiles were fulfilling all expectations. They probably assumed that human beings could not protect themselves against the death-waves; that their intelligence was insufficient to enable them to escape entire destruction. They could not, therefore, suspect that the population of the Earth had been comparatively unaffected, and that new centres of industry, life and civilisation were being constructed to replace those destroyed.

This announcement met with universal approval. So completely had it changed in its attitude towards Henderson that if he had announced that the meteorites were living, thinking beings from another planet, the public, I verily believe, would have agreed with him. But still the meteorites—or projectiles, as I must call them—continued to fall. They neither increased nor decreased in numbers, but fell in more or less intermittent showers, sometimes two or three, sometimes fifteen or twenty every twenty-four hours; and the percentage of their hits remained very nearly constant. That, Henderson argued, was still further proof that the Martians could not observe the effect of their shots; for if they could, they would have improved their accuracy. They would have corrected their trajectories, and as the months had passed, the percentage of hits would have greatly increased.

AND then came the greatest, most sensational discovery of them all. The meteorites, or projectiles, still lay wherever they had fallen; to venture within the area of their radiations without the wave-proof outfits meant death, and it was neither practical nor possible to constantly wear these cumbersome suits.

Moreover, since Henderson's and Fothergill's forecasts had become universally accepted and proved, there had been no occasion to wear them; the public had learned to give the things a wide berth, and barriers had been erected carrying warnings about every projectile.

Still, they were a danger and a great nuisance. There were so many of them, and in some districts they were so close together, that arable land and new city sites were greatly restricted. And, as time went on and the fall continued unabated, there would be more and more of them accumulating. So Henderson now devoted himself to experimenting with devices designed to render the projectiles harmless.

If, he reasoned, his resuscitating apparatus rearranged the disorganised atoms of the human brain, and thus offset the action of the death-waves, would not some form of wave neutralise the emanations as they were given off by the projectiles? In other words, was it possible to utilise some kind of wave to alter the atomic or electronic arrangement of the projectiles themselves, and so render them incapable of receiving and diffusing the unknown, mysterious waves which, he still believed, were being transmitted through space from Mars?

He was convinced that this was possible, and, with samples of the projectiles, he had set patiently and doggedly to work along these lines. So, when my phone rang one afternoon, and I heard Henderson's excited voice at the other end of the wire, I knew he had made an important discovery.

"Come over as soon as you can!" he cried. "It's wonderful—absolutely astounding! I want you to be the first to see it."

"What's astounding?" I asked. "Have you found what you were looking for?"

"No," he yelled, "something a lot better. Come on over!"

I found him, on my arrival, even more excited and jubilant than I had judged from his voice. He was aglow with enthusiasm.

"Put on this wave-proof suit," he cried. "I'm going to show you something that'll make your eyes pop out!"

As he spoke, he was donning another of his suits. Wondering what on Earth it was all about, I obeyed his instructions. Then he led me to his laboratory.

"See that?" he cried, pointing to a lump of black mineral that I recognised as a fragment of one of the meteorites—projectiles, rather. I nodded.

"Well, just watch it," he cried, and began to arrange a complicated device of wires, magnets and small vacuum-tubes upon the bench.

"Now!" he exclaimed. "Keep your eyes on it. Ready? One—two—three!"

He pressed a switch and, like a shot from a gun, the fragment of mineral leaped from the table and struck with a thud against the ceiling, where it remained. I stared, gaping, at the thing. What had shot it into the air? Why did it stay there as if fastened to the ceiling?

Henderson laughed. "I thought I'd surprise you! Now, watch. I press this switch and——"

I heard a click as he moved the switch, and instantly the lump of metal fell back on to the table.

"Well, I'll be——!" I began.

He chuckled. "I don't blame you for being flabbergasted. I was, myself."

"But what does it mean? How's it done?" I demanded.

"It means the salvation of the world," said Henderson, calmly and seriously, "and it's done by means of a simple high-frequency current of electricity in combination with a vibratory wave of a certain length. I've been experimenting, as you know, with the idea of trying to neutralise the death-waves from the projectiles. I tried every kind of current and wave I could think of, with no success. This morning, I had a high-frequency current apparatus here, and a specially designed transmitting set. I was sitting here thinking, staring at that lump of Martian devilishness and, half unconsciously, fiddling with the instruments.

"Suddenly, without any warning, the darned thing flew past my head, whanged against the ceiling, and stuck there. I could hardly believe my eyes, couldn't imagine what had happened. Then I began to reason. Either it was some outside influence—some wave, or something, from Mars—or else it was something in here that had caused the thing to act as it did. But the other specimens hadn't moved, so I decided it must be due to something in here.

"The only things I had touched or moved were the generator and transmitter, so I reasoned it must have some connection with them. I examined them, and found I had swung two switches, and turned on the current from the generator and set the transmitter going at the same time. It seemed impossible, but I couldn't account for it any other way, so I kept my eye on the lump and moved the switches back. Plump! Down it came on to the table again. I swung the switches back, and up she goes to the ceiling again. Then I rang you.

"It won't work with either of the switches alone. Both have to be swung together. But now I know how it works, the rest is simple. Merritt! The world's as good as saved!"

"IF YOU can explain how it's saved, I can judge better," I told him. "I may be awfully dense, but I fail to see how this trick of popping a bit of mineral up and down, remarkable as it is, can save the world."

"Yes, I must admit, you *are* dense," laughed Henderson. "But I'll explain. Why does this lump of metal jump up in the air when I use the high-frequency current and the short radio wave? Because, my dear sir, there's something about the stuff that causes it to be violently repelled by that particular combination. There are two hypothetical explanations for that. It may be some intrinsic property of the stuff that causes it to be repelled. On the other hand, we know—at least, I feel sure—that the death-waves are generated by some other form of waves coming from Mars. In other words, there is a direct connection established between Mars and these projectiles here on Earth.

"Everyone familiar with electricity and radio knows that certain waves may be neutralised or interrupted, or completely altered, by other waves. Very well. Assuming that there *are* waves connecting Mars with every one of these metallic masses—with every fragment—and assuming that the combined wave and electrical current I have here interferes with that Martian wave, what happens? Why, up flies the bit of Martian metal, until it plunks against the ceiling and has to stop. And there it sticks, in defiance of the law of gravity, until I shut off my

magic and down it drops.

"In other words, I've neutralised or altered the wave that connects Mars and this little lump of cussedness; and so, there's nothing for the poor thing to do but run home and tell mother up in Mars. But, as there's a ceiling in the way, it can't go home, and just sticks as far up as it can go!"

"You mean," I said, beginning to understand, and overlooking his flippancy, "you mean that the only thing that holds the meteorites on Earth is the wave that connects them with Mars, and that when it is shut off they fly back to where they came from?"

"I can't say that is *exactly* the idea," he replied. "I'm not prepared, as yet, to scrap the law of gravity, and say that solid metal will not remain on Earth without outside influence. No; what I believe is that the waves connecting these things with Mars are the same waves that were used to send them here and to direct them, and that my little dinkus here produces a combination that reverses the Martian waves and causes them to attract just as powerfully as they repelled."

"Lord!" I shouted in my excitement. "Then you think that, with proper devices, you can cause the projectiles to leave the Earth and go back to Mars?"

"Precisely!" he declared. "Now, you see what I meant when I said the world was as good as saved."

I got up and paced the floor, my mind in a turmoil, striving to think the thing out, to find flaws in what seemed such an incredible theory. It was too big to be grasped at once. The idea of an electric current and a radio wave being able to lift those enormous masses, and project them through space, was beyond belief. I turned to Henderson, who was amusing himself by shooting the bit of mineral into the air and letting it drop back.

"But, Paul," I demanded, "how do you know it will work on a big mass of the stuff? Don't a lot of experiments work on a small scale and fail in a big test? And—well, somehow I can't believe an electric wave can have the power to move such things. Why, it would take as much gunpowder as there is in existence to fire one of them a few hundred yards!"

Henderson looked a little hurt. "Do you doubt the power of electricity to haul

your train at seventy miles an hour? If a crane with an electro-magnet can lift a hundred-ton casting, is there any reason why an electric current should not lift one thousand tons? And if a radio wave can transmit words and pictures round the world, is there any reason why it should not do things no more remarkable in their way, even if they've never been done before?"

"No, I suppose not," I admitted. "But I'd like to see one of those thousand-ton meteorites go shooting off into space at the turn of a switch!"

"That, my friend, is just what you shall see," he assured me. "As soon as I can rig up a big enough apparatus, I'm going to make the test. But don't say a thing about this, until we *know* it works. I'm not going to be laughed at again, and I don't want to get the whole world in a state of expectation and then have to disappoint it. But, if I'm not mistaken, we'll have the supreme satisfaction of seeing some of these unwelcome visitors go flying back home to the Martians, to give them a taste of their own medicine. I wonder if they've got any big cities to be knocked to pieces? Too bad we can't watch the results!"

CHAPTER IX

THE FINAL TRIUMPH

I COULD hardly contain myself during the next few days. Henderson's latest discovery filled every moment of my thoughts. And when, after less than a week, he called and informed me, in quite casual tones, that all was ready for the big test, I felt as nervous and excited as though I, personally, were to be launched on a journey through space.

I found Henderson awaiting me with Fothergill, who seemed to take the new development as a matter of course. As we climbed into his car, Henderson told me:

"Fothergill has calculated the length of time it should take for the things to get back to Mars, and he believes it may be possible for observers on Earth to note the effects when they hit."

"If they hit——" I reminded him.

"Oh, I'm confident they will," he replied. "If we can start 'em off, they'll go home to roost all right."

Our first objective was a meteorite—no, projectile—about fifty miles from town. It was one that had fallen several months previously; one of the same shower that had destroyed Schenectady and Poughkeepsie and caused tremendous damage to Albany, Northampton and Saratoga. It lay in an uninhabited district, and was particularly suitable for Henderson's experiment.

"Besides, there are two or three others not far away," he said, as we raced along the Hudson Boulevard. "If we fail on one, we'll try another, and if it works, we'll start all of them on their way."

Reaching the vicinity of the projectile, Henderson turned into an abandoned road, once an important State highway, but now overgrown on account of its proximity to the thing we sought. A mile farther on, we came to a barbed-wire fence bearing the customary warning of a near-by meteorite. Here, Henderson stopped the car, brought out the wave-proof suits we were to wear, and with our help, started to unload several heavy and cumbersome cases.

"Too bad we can't get nearer the thing," he grunted, as we lifted a massive battery from the car. "But we'll manage somehow. We can take one thing at a time, if necessary."

It was hard work getting the heavy equipment up to the meteorite, clad in our stuffy suits, but we accomplished it at last. I had never been so near one of the things before, and I examined it curiously. It was three-quarters buried in the earth, a harmless-looking, black mass that might have been a huge boulder; but, for several hundred yards about it, every vestige of vegetation had been completely wiped out. Remains of charred trees and piles of ashes covered the upthrown earth that was burned a vivid brick-red, and for nearly a mile in every direction the trees stood gaunt, pathetic testimonies to the awful heat of the thing when it fell.

"How close to the thing are you going?" I asked Henderson, as we dumped down a big transformer. He scratched his head and grinned.

"Hanged if I know," he admitted. "We don't want to get too near. When that baby starts for home, she's going to kick up a lot of dust and raise the devil about

here. I've tried out the bits in my laboratory, and if the big ones work in the same ratio, we ought to be able to give it a kick from about fifty yards off. But I'll make sure and say thirty yards. That's safe enough, don't you think so, Fothergill?"

"I should imagine so," he assented. "Apart from the dust and dirt, I can't see there is any danger to be apprehended. I think even ten yards would be quite safe."

"We'll split the difference and say twenty, then," grinned Henderson. "All right, let's hook her up and bid her goodbye!"

Quickly the boxes were unpacked, the pieces of equipment assembled, and the various connections made by Henderson. Fothergill and myself could do little to help, for the apparatus was unintelligible to us. As we watched, it seemed utterly preposterous to expect that those bakelite cabinets and panels, with their nickel knobs and green-coated wires, could even affect, much less move, that huge, dull mass of metal lying deeply embedded in the soil.

"All O.K.!" Henderson announced at last, straightening up. "Now, gentlemen, we are about to demonstrate to you the truth of the old saying that faith can move mountains. Keep your eyes on yonder sullen mass of mineral, my friends, and see if you can tell how the trick is done, as the conjurers say. Ready? Hold hard! One—two——"

There was a sharp click, followed almost instantly by a deafening roar. I was lifted from my feet, whirled about, and thrown flat on my face. Gasping, the breath knocked from my lungs, I sat up and stared about. The smaller pieces of equipment had been overturned and scattered. A few feet away, Fothergill was blinking his eyes, spitting dirt from his mouth, and rubbing his shoulder ruefully. Off to the other side, Henderson was rising slowly to his feet, and gazing in a half-dazed manner towards the meteorite. I turned and stared in the same direction.

The next instant I leaped to my feet and let out a yell like a Comanche Indian. The thing had vanished! Where it had rested, a moment before, was only a shallow pit into which dirt and pebbles were still sliding. Then, as I gazed at the spot, I was aware of a peculiar, greenish light that seemed to flood everything.



THERE WAS A DEAFENING REPORT, AND WE WERE LIFTED FROM OUR FEET AND WHIRLED ABOUT

HENDERSON'S voice brought me to my senses.

"Hurrah!" he yelled. "It worked! Number one's on its way! Good thing we weren't any nearer, though. The rush of displaced air knocked us about a bit. And say, notice the green light? That old girl certainly is travelling! She's getting as hot up leaving us as she did coming!"

He stepped towards his instruments, which seemed undamaged despite their rough treatment, and bent over the switches. Fothergill leaped upon him with a sharp cry, and flung him back.

"For God's sake, don't touch them!" he yelled. "Do you want that thing to come tearing back here?"

Henderson gulped, looked sheepishly at us, then pulled out his handkerchief and mopped his brow.

"Whew!" he exclaimed. "I *did* come near putting my foot in it that time! Thanks for stopping me, Fothergill. I forgot about that. Funny how I could. . . ."

"What's it all about?" I queried, completely bewildered, and still a little out of breath.

"Why, don't you see?" cried Henderson. "If I switch off this thing, that mass of metal will turn round and come galloping back here. I've got to keep the switch on until the blasted thing hits Mars!"

"And, possibly, even then, it might return," put in Fothergill. "That's another thing you didn't think of."

Henderson grinned. "Sort of rubber ball effect," he remarked. "But I don't think there's any danger of that. Once they get home, I'll bet they stay there—unless the Martians fire 'em back again. And I'm not so sure they won't keep going, once they're started on their way, even if I shut the current off. I'm going to try it!"

"Hold on!" I warned him. "I don't want to be here when that one comes back!"

"That's all right," said Fothergill. "If it returned now, it wouldn't strike here. The Earth has moved a good many miles since it left. So, you could not be certain one way or the other, if you did switch off the current, Paul. If it returned, it would land elsewhere, and you could not distinguish it from a new projectile."

"H-m-m; that's so," admitted Henderson, then added with a laugh: "Looks as though we'll have to tag them when we send them off, so as we shall know which get home and which don't!"

"I think," said Fothergill, judicially, "that by operating at night we may be able to determine if it is essential to keep your apparatus in action in order to prevent their return. We could watch the projectiles until they were invisible; then, if you switched off and they continued to recede, we could be pretty certain that they would *not* return."

"Fine!" cried Henderson. "I must switch off now, anyhow. If that thing comes back, it won't make much difference—one more or less is of no consequence, nowadays. And to-night, we'll try the stunt again."

I confess that, as Henderson shut off the current, I had a feeling of apprehension; and, ridiculous though it was, I could not help glancing up, half expecting to see the huge mass of incandescent metal come hurtling back at us. But even I realised that, at the tremendous speed at which

it was travelling, it would be far on its homeward journey, and that some time must elapse before it overcame its momentum and started to fall back to Earth, even if it did return.

Packing up the mass of equipment, we lugged it back to the car, doffed our uncomfortable outfits, and drove away. There was no sense in going back to town, for there was another of the Martian projectiles a few miles distant, and evening was not far off. We dined at a little country inn, and then turned west, as the afterglow bathed the world in soft, rosy light.

TWILIGHT was fading into night when we reached our destination, and by the time the apparatus was set up again, it was pitch dark. This time, we were careful not to venture too close to the projectile; and to avoid being blown over by the blast of air as the projectile left the earth, we lay flat on our faces as Henderson prepared to press the switch.

The click of the switch was instantly followed by a rushing, roaring sound; there was a strong puff of wind, a breath-taking suction, and the night was lit by a brilliant, green glare. Leaping up, we gazed into the sky. Far above our heads, a dazzling ball of greenish fire was sweeping across the heavens. Rapidly it decreased in size; the weird light which bathed us faded away, and the speeding, glowing ball became a faint, luminous speck.

"Now, we'll see!" cried Henderson, as he sprang to his instruments and turned off the switch.

With fast-beating hearts, we kept our eyes fixed upon that remote speck of light. For an instant it seemed to waver, to remain fixed; and our hopes fell. Then it flickered and vanished, and we sighed with relief.

"Hurrah!" yelled Henderson. "That's that! Once they get going, there's no coming back. I hope a nice big reception committee's waiting up there to welcome you, old girl—and I hope you smash about ten thousand of 'em to a pulp!"

"You know," he went on, more seri-

ously, "I've been trying to figure out which of my ideas about these things, and the effect this little gadget has on them, is more likely to be the correct one. At first, I was inclined to favour the theory that it was an interference with the Martian waves that made those fragments act the way they did, but I'm beginning to doubt that, now. I'm more inclined to think it's some sort of magnetic property in the projectiles themselves, which is changed from positive to negative by my device, so that the things are violently repelled and just shoot off into space."

"I can't see that it makes much difference which it is, as long as they go," I said. "I don't see how you're going to find out, anyway."

"I don't either," he admitted. "And, as you say, it makes no odds. Well, come on! Let's see how many we can get going to-night."

"Possibly," remarked Fothergill, as we again packed up the equipment, "by observing the trajectories followed by the projectiles, we might be able to ascertain which theory is the right one. If it is the Martian wave that controls them, I assume that the masses would return to Mars. But if the effect is due to a reversal of a strange magnetic property, there is no reason why they should return to that planet. They would more probably be attracted by the Moon."

"Right!" Henderson exclaimed. "You can keep watch through your telescope to-morrow night, while we shoot the things off, and see what you can see. But, personally, I don't give a whoop where they land, as long as we can get rid of them!"

Half an hour later, we watched another of the projectiles soaring into the heavens.

"Lord!" cried Henderson, as it swept upward like a stupendous rocket, and disappeared. "Talk about the Fourth of July! This beats any fireworks display!"

When at last we turned towards the city, the eastern sky was paling with approaching dawn, and we had seen two more of the Martian projectiles vanish into space.

"I wonder," said Henderson, with a yawn, "how many people saw them and what they thought? I'll bet more than one chap has jumped on the water-wagon!"

CHAPTER X

THE DEFEAT OF MARS

WHEN, towards noon of the following day, I reluctantly arose and glanced at the morning paper, I chuckled.

"Several Martian projectiles were reported last night," I read. "But instead of approaching the Earth, these were moving *away* from us! People living in the Catskills said that they were very brilliant, but that there were no explosions such as usually accompany descending projectiles."

"The observers declare that they distinctly saw the projectiles rushing upward and away from the Earth, and that they gradually dwindled and disappeared. Their reports are substantiated by at least four astronomers who also observed the receding projectiles."

"What does it mean? Are our unwelcome celestial visitors about to retreat and leave us in peace, or is our harassed world ridding itself of its tormentors by some unknown and mysterious power? Undoubtedly, Professor Henderson can answer the question."

Then the daily forecast caught my eye; and beneath it, in the space usually devoted to the disasters of the past twenty-four hours, was a brief paragraph that astonished me. For the first time, Henderson's forecast had not been fulfilled. He had prophesied a fall of projectiles in southern Europe, and had named Nice, Milan, Venice, Marseilles and Barcelona as the cities likely to suffer; but not one had been hit. A few projectiles had fallen during the preceding day, without doing any material damage, and not a single one had been reported during the night.

Was it merely coincidence that none had fallen after we had hurled one of them back into space, or was there some connection between our night's activities and the sudden cessation of descending projectiles? I was still puzzling over it when Henderson called me.

"Didn't I say we'd have folks guessing?" he chuckled. "But what do you know about the darned things letting me down last night? That's got me guessing, too! Come on over, and let's see what we can make of it."

I found him busily writing an account of his latest achievement for the next day's papers.

"I've had about a thousand calls already this morning," he explained, "all wanting to know what I think about the reports of the things reversing their usual procedure. I've given the papers something to get on with, and agreed to supply them with a full explanation later to-day. But, honestly, I can't understand why the things have stopped coming. I can't see how it can have anything to do with our shooting those five into space—it must be just a coincidence; or perhaps the Martians have exhausted their supply of missiles. Anyway, it's mighty queer that last night should have been the first that none have fallen in nineteen months!"

We were still discussing this new problem when Fothergill put in his appearance.

"I think," he announced, "there can be no doubt that the projectiles we despatched yesterday are well on their way back to Mars by now. I have been in communication with several astronomers, and have secured all possible data on their observations of the receding projectiles—the sight was sufficiently unusual to attract and concentrate their attentions—and while the data is, I confess, meagre, I have worked out the trajectories and am convinced that they are following a direct course towards Mars."

"Bully for them!" cried Henderson. "But what's your idea about none of the things coming Earthwards last night?"

"That is a matter to which I have already given no little thought," replied Fothergill. "Of course, I am not too familiar with the science of electricity, or the laws of vibratory action; but is it beyond the bounds of possibility that your new wave, if powerful enough to repel the masses of Martian matter, might have so affected the Martian waves that it is no longer possible for the projectiles to pursue their course towards us with the same unerring directness?"

"That, certainly, is a possible explanation," said Henderson. "No one can say how far such vibrations may travel. For all we know, every wave may go vibrating through space to the most distant stars; and if the Martian waves can still exert their influence on the projectiles

after they've landed here, I see no reason why our neutralising waves shouldn't reach to Mars, and perhaps put their sending apparatus out of commission, as well as reversing the effect of their waves right here. Though the very fact that we could still reverse their effect to send those other projectiles back, after our first success, would seem to suggest that they were still being generated; especially since the death-waves have shown no sign of being interfered with.

"Unless it is that the reversal process is, indeed, made possible by some intrinsic property of the missiles themselves, as distinct from the waves used to send them here and to radiate the death-aura. In which case, it must be coincidence. Anyway, whichever it is, it now seems certain that, once they are well on their way homewards, the momentum of the projectiles is sufficient to carry them beyond the gravitational pull of Earth and within the attraction of Mars, without further influence from us.

"Though there, again, if they *do* go back where they came from, it would infer that the Martian waves are still in operation, although reversed in their effect on those projectiles to which we applied our own waves. Every explanation seems to contradict the other. Still, one thing is certain. If we can keep on sending the things off, and no more come our way, we can be pretty sure that we've beaten the Martians at their own game; and that's the important thing!"

HENDERSON'S announcement of his latest and greatest triumph both astounded and elated the entire world. Not even the most sceptical of persons could question its truth; for it was now generally accepted that the five projectiles we had despatched had been seen by several independent observers to shoot off into space. And Henderson—rather rashly, I thought—claimed that it was only a question of time, and the duplication of his apparatus, before the rest of the deadly missiles were returned to their place of origin.

Such was his supreme confidence that he promised to send several more of the projectiles into the heavens that night, and millions of people waited and watched the

darkening skies as night approached. They were not disappointed. Three of the missiles hurtled skywards from the Litchfield Hills, their dazzling green light illuminating the country for miles around; and in their flight, they were visible to watchers more than two hundred miles apart.

Not a single falling projectile had been reported from any part of the world since our first successful test of Henderson's apparatus. Whatever the explanation, the public was convinced that this was a direct result of his latest feat, and the world went mad with joy. Everywhere were wild celebrations and thanksgivings. The world was saved; the Martians were defeated! Once more people could live without fear. Once again the cities would be safe from sudden and complete destruction.

And nightly, daily, the great masses of metal from another planet were projected into space, in increasing numbers. Thousands of repeller devices were manufactured; thousands of men, equipped with wave-proof outfits, were hunting out the fallen projectiles and, by pressing a switch, hurling the stupendous missiles from the Earth. From sundown to sunrise, the skies were ablaze with the flaring, speeding things, rushing back to their source, hundreds at a time. Never in the world's history had there been such a wondrous, awe-inspiring sight as those countless streaming, fiery objects presented.

No more projectiles fell; no more were expected. The papers no longer published Henderson's forecasts. The people moved back to their abandoned cities. Valuables were returned to their original resting-places. Within a few weeks, nearly all the projectiles lying outside the ruined cities had been disposed of. Only those which lay buried in the ruins they had wrought, and those which had fallen in remote districts, remained.

Then, one day, Fothergill burst into the room where I was talking with Henderson. His eyes were wide, his face flushed, and he was fairly bristling with excitement.

"I've seen it!" he yelled. "It's marvellous—absolutely astounding! There's no doubt about it!"

"Hold on, old man!" cried Henderson. "What's all the shouting about? Take it

easy, and tell us what it is you've seen that's so astounding, and what there's no doubt about. I assume it's something to do with that new telescope of yours. Seen the man in the Moon, or is old Mars himself coming down to attack us?"

Fothergill mopped his brow, and grinned. "Not quite that," he said, more calmly. "But it does have to do with the new telescope. I used it last night for the first time—it's the most powerful of its type in the world, as you know. And the first object I viewed was Mars."

"Quite natural," commented Henderson. "Well, what did you see?"

"It's what I didn't see that surprised me," announced the astronomer. "I have made frequent observations of Mars in the past; I am thoroughly familiar with its features, and I have, naturally, been more than ever interested in the planet since you advanced your theory of the Martian origin of the projectiles. Indeed, it was to see still more of its details that I ordered this new, extremely powerful telescope. In fact——"

"FOR heaven's sake, Fothergill, tell us what it's all about!" demanded Henderson, impatiently. "What was it you *didn't* see? Can it be that Mars has vanished—that we've smashed him to pieces by our bombardment? Tell us, man!"

"No," Fothergill assured him. "Mars is—or was when I last observed it—still in its accustomed position. But the astonishing thing is that the surface of the planet is quite different to what it was. Several of the larger equatorial canals have completely vanished; others have entirely altered their size and position, and where formerly were level, illuminated areas are now shadows, indicating irregularities of immense dimensions. In fact, through my new telescope I could clearly discern the existence of huge craters, similar to the Lunar craters.

"There can be but one explanation, Paul. The projectiles hurled back at Mars have caused tremendous havoc on that planet!"

"Three cheers for us!" shouted Henderson. "It's about time they began to arrive at their destination. Jumping Jupiter! What's going to happen to old

Mars when they arrive in full force?"

"That we can't say," replied Fothergill, controlling his excitement with an effort. "But if, as it would appear, the vanguard of the projectiles has wrought so much havoc on the planet, I think we can safely assume that, by the time they have all descended upon its surface, the greater part of it will be unrecognisable. You must remember that Mars isn't anything like the size of the Earth, and so the fall of the projectiles will be more concentrated."

"Lord!" cried Henderson. "Then things must be getting pretty hot up there, by now. Think of it! Hundreds of missiles, weighing anything up to ten thousand tons, banging into poor old Mars in a steady stream! It was bad enough here, but it must be a damned sight worse there!"

"You must bear in mind," remarked Fothergill, "that an object that weighs ten thousand tons, here, will not weigh more than four thousand tons on Mars. Moreover, the projectiles must lose a large part of their weight during their flight through our atmosphere and, though to a much lesser extent, through that of Mars, due to frictional heat and the consequent combustion of their gaseous content."

"Maybe," Henderson assented. "But don't forget they've travelled a devil of a distance, and at a pretty fast rate, too. According to the laws of physics, a small body travelling at high speed strikes as hard a blow as a large body travelling at a proportionately low speed. And, according to your own observations, those things must be giving old Mars some awful jolts."

"I should think," I ventured, "that if they are actually the cause of the changes Fothergill reports, we should be able to see them strike, or at least see their immediate effect, if we watched carefully through the telescope."

Fothergill shook his head. "Even my telescope is not powerful enough for that," he said; "though it might be possible to note further changes in the surface as they occur. I am going to get in touch with other observers and inquire if any unusual changes have been noticed on Mars. I'll communicate with you as soon as I know, and I hope you will both come to my

observatory to-night and have a look at the planet yourselves."

Within an hour of his departure, he called us up.

"I was not mistaken," he announced, triumphantly. "Several astronomers have noticed the same differences, but they did not associate them with the projectiles. I shall write a monograph on the subject."

CHAPTER XI

THE LAST FRAGMENTS

WHEN we entered his palatial home that evening, Fothergill was jubilant. And when, after he had adjusted the enormous telescope that had cost him a fortune, I peered into the eye-piece, I did not wonder at his excitement. There was Mars, glowing ruddily, its gleaming ice-caps sharp and clear, its surface streaked with the dark lines of its mysterious canals. Even I, unfamiliar with the ordinary aspects of the planet, had no difficulty in distinguishing the circular and semi-circular shadows that marked great depressions exactly like those upon the surface of the Moon.

I noticed, also, that several of the canals were broken and interrupted, and that many of the craters were in the canals themselves. It was evident that the planet was being scarred and blasted; that it was suffering terrific damage from the same projectiles with which the Martians had bombarded the Earth. Henderson, too, was convinced.

"It's all up with the Martians," he said, as he gazed into the eye-piece. "Begins to look like the Moon already. I've heard some astronomers claim that the Lunar craters were caused by giant meteorites in past ages. I wonder if the Martians worked the same trick on the poor old Moon as they played on us? Anyway, it looks as though, by the time we are through, Mars will be as dead as the Moon is now!"

And, as the days and weeks passed, it seemed as if his words would be borne out. The surface of the planet was covered with craters; one by one, the canals vanished, and the whole aspect became more and more reminiscent of Luna's pitted face.

Meanwhile, the work of ridding the Earth of the projectiles was proceeding steadily, but slowly. For those that remained were buried in the ruins of the cities they had destroyed, and vast quantities of débris had to be removed before they could be reached. Though in many cases, where they were not too deeply buried, they could be projected despite their covering. It was a marvellous sight to see a great pile of broken masonry and twisted steel suddenly erupt like a volcano, and a great, dully gleaming mass burst forth, to go screaming upwards into the sky.

But it was dangerous work; the repeller apparatus had to be operated from a distance, and even then, the authorities could never be certain that all of the death-dealing mass had been eliminated. Very frequently, the projectiles had been shattered when they struck large buildings; in some cases, two or more had fallen close together, and although one might be forced upwards, others might still remain deeply buried among the ruins. Several deaths had occurred during the early stages of the work, because the men, thinking they had eliminated the things entirely, had removed their wave-proof coverings and been struck down by the waves emanating from masses still hidden in the débris.

To obviate such casualties, and to speed up the reconstructive work, Henderson was perfecting a device, of far greater scope and power than the repeller already in use, which would also embody a detector apparatus. He had discovered, he said, that the death-waves not only affected human and animal tissues, but also various inorganic substances. This was particularly true of mineral salts and metallic oxides, which changed their colour under the influence of the waves.

"THE trouble is," he explained, "that none of these is affected until it is within a few inches of the stuff, and the colour change is permanent. What I'm looking for is some substance that will alter in colour a long distance from a buried projectile, or even a fragment of one. It must be extremely sensitive to the waves—as sensitive to them as the human brain—and it must change back to its natural colour as soon as it is

withdrawn from the area of influence of the waves.

"If I can find such a salt or oxide, we can then locate a mass of the material, get rid of it, and be sure there are no bits remaining to raise Hades later on. It wouldn't do to have a mite of the stuff hanging about, in case it retains its lethal properties indefinitely. Otherwise someone might be digging a hole, or some kid might be playing in a sand-pile, and a piece of the stuff would bob up and kill Lord knows how many people."

"I see your point," I replied. "But I'm afraid you'll have a mighty hard job to be absolutely certain that not an atom of the stuff remains on Earth. A lot of it must be under water, in ponds, lakes and rivers, and may be fished up at any time. A lot more must lie concealed in deserts and forests and among mountains, where no one suspects it. It's like the dud shells and mines left over from the last war. Even now, they're still turning up at times, and causing accidents."

"Yes, but that's different," he persisted. "There's no way of locating those, and no way of getting rid of them without stumbling upon them. But, with this stuff, it's another matter. If only we can locate the things, we can get rid of them, even if they're not visible. I admit, if they're deep under water, they'll have to remain there; and, of course, we can't cover every square mile of the Earth's surface hunting for stray pieces. But neither can we exterminate all the rattlesnakes in the world, and that's no excuse for harbouring them on our doorsteps.

"What beats me, though, is how the stuff can go on sending out those death-waves in spite of all the missiles we've sent back to Mars, and when the chances are that every Martian is dead and gone. Either the things send out the waves of their own accord, or else the waves which generate them are still coming from Mars without anyone directing them."

"Yes, I had thought of that," I said. "But about this new device of yours. Do you think you'll ever find the material you need for your detector? There are such an unlimited number of salts and oxides, that you could spend years experimenting with them, and even then you might overlook the one you need."

But there was no denying Henderson's

persistence, when he was confronted with a problem. He had resolved to find the thing he sought, and he continued his search steadfastly until, at last, his patience was rewarded. Pure metallic sodium did the trick. It was extremely sensitive to the death-waves, and showed a marked colour change even beyond the range at which the waves affected the human brain; and the intense ruby red that it assumed when subjected to the waves faded and disappeared as it was withdrawn from them.

HENDERSON, of course, was delighted, and once he had set to work on it, soon completed his detector apparatus. It was very compact and easily portable, and he demonstrated its efficiency in locating the Martian material to Fothergill and myself in a laboratory test.

Burying one of his specimens of the deadly stuff under a pile of sand at one end of the room, he placed his apparatus on a movable table at the other end. Then, instructing us to watch the tiny sodium plate in its glass-covered recess, he pushed the table forward. Before he had moved it three yards, the plate became a pale pink, deepened rapidly to red as he advanced, and was a deep carmine by the time the table was within six feet of the concealed fragment of Martian metal.

"I don't know, yet, how far away it would detect a large mass of the stuff," said Henderson, "but I intend to give the apparatus a severe practical test to-morrow. As you know, they haven't finished clearing up Scranton, and they've had a lot of trouble there. They thought they'd got rid of the only projectile that struck the city, but over a dozen men have been prostrated, and two have since died. There's a lot more of the stuff hidden in the ruins somewhere, and I've asked the authorities to leave it alone until I can try out my detector there. I'd like you both to come along and see how it works."

Fothergill readily accepted the invitation; but, although I would have liked to have seized the opportunity to witness the test, I had to decline, owing to an important appointment that could not be postponed. As it turned out, that appointment saved my life. . . .

The terrible news reached me the following afternoon. Henderson and Fothergill, with several officials, all equipped with their wave-proof garments, had made their way through the tumbled ruins of Scranton's once proud buildings, clambered over piles of shattered masonry, and reached the spot where the projectile had been. Henderson had set up his apparatus, and all had watched intently as he moved it about, his eyes fixed on the sodium plate.

Almost immediately, the detector had indicated the presence of a mass of the Martian material, and soon afterwards, Henderson had announced that it lay buried under the ruins of an armoury, or very near it. So deeply embedded was it that it had been beyond the power of the ordinary repeller apparatus to remove it, and Henderson had announced that it would give him an exceptional opportunity to test the powers of his improved device. Moving a safe distance to one side, and gauging the range by the colour effect on the plate of his detector, he had connected his electrical paraphernalia, and turned the switch.

No one will ever know exactly what happened after that. The onlookers, who were watching from a greater distance, saw a cloud of dust and debris rise in the air. They saw a dark mass, like a huge cannon-ball, go hurtling, screaming, into the sky. There was a terrific explosion; stones, timbers, bricks were flung in all directions. Then—silence.

When the cloud of dust had cleared away, the remains of Henderson, Fothergill and the few who had stayed with them were found among the ruins. Within a few yards of where they had stood was a yawning hole that opened into an abandoned mine-shaft. Whether explosives stored in the old shaft had been ignited, or whether the explosion was caused by ammunition in the wrecked armoury blowing up, could not be determined.

But Henderson, who had saved the world, had sacrificed his life in the cause of mankind. The world was shocked by the news of his death, and every nation paid homage to the man to whom humanity owed its salvation. No man in all history had ever been so deeply and sincerely mourned. Kings, emperors and

[CONTINUED ON PAGE 45]

Into A Drab, Timeless World Where None Had Ventured Before, The Murderer Lured His Victim . . .



MURDER IN THE FOURTH DIMENSION

By
CLARK
ASHTON SMITH

Author of *Master of the Asteroid*, etc.

The following pages are from a notebook that was discovered lying at the foot of an oak-tree beside the Lincoln highway, between Bowman and Auburn, California. They would have been dismissed immediately as the work of a disordered mind, if it had not been for the unaccountable disappearance, eight days before, of James Buckingham and Edgar Halpin. Experts testified that the handwriting was undoubtedly that of Buckingham. A silver dollar and a handkerchief marked with Buckingham's initials were also found, not far from the notebook.

NOT everyone, perhaps, will believe that my ten years' hatred for Edgar Halpin was the impelling force that drove me to the perfecting of a most unique invention. Only those who have detested another man with the black fervour of the loathing I had for him will understand the patience with which I sought to devise a revenge that should be both safe and adequate at the same time.

The wrong he had done me was one that must be expiated sooner or later, and nothing short of his death would be sufficient. However, I did not care to hang, not even for a crime that I could regard as nothing more than the mere execution of justice; and, as a lawyer, I knew how difficult, how practically impossible, was the commission of a murder that would leave no betraying evidence. Therefore, I puzzled long and fruitlessly as to the manner in which Halpin should die, before my inspiration came to me.

I had reason enough to hate Edgar Halpin. We had been bosom friends throughout our schooldays, and through the first years of our professional life as legal partners. But when Halpin married the one woman I had ever loved with complete devotion, all friendship ceased, as far as I was concerned, and was replaced by an icy barrier of inexorable enmity. Even the death of Alice, five years after the marriage, made no difference; for I could not forgive the happiness of which I had been deprived—the happiness they had shared during those years, like the thieves

they were. I felt that she would have cared for me if it had not been for Halpin; indeed, she and I had been almost engaged before the beginning of his rivalry.

It must not be supposed, however, that I was indiscreet enough to reveal my feelings at any time. Halpin was my daily associate in the Auburn law business to which we belonged, and I continued to be a welcome and frequent guest at his home. I doubt if he ever realised that I had cared so much for Alice; I am secretive and undemonstrative by temperament, and also, I am proud. No one, except Alice herself, ever surmised my suffering, and even she knew nothing of my resentment.

Halpin himself trusted me; and nurturing as I did the idea of retaliation at some future time, I took care that he should continue to do so. I made myself necessary to him in all ways. I helped him when my heart was a cauldron of seething poisons. I spoke words of brotherly affection and clapped him affectionately on the back when I would rather have driven a dagger through him. I knew all the torture and all the nausea of a hypocrite; and, day after day, year after year, I made my varying plans for an ultimate revenge.

Apart from my legal studies and duties, during those ten years, I apprised myself of everything available that dealt with the methods of murder. Crimes of passion allured me with a fateful interest, and I read untiringly the records of particular cases. I made an intensive study of weapons and poisons, and pictured to myself the death of Halpin in every conceivable way. I imagined the deed as being done at all hours of the day and night, in a multitude of places. The only flaw in these dreams was my inability to think of any spot that would assure perfect safety from subsequent detection.

IT WAS my bent towards scientific speculation and experiment that finally gave me the clue I sought. I had long been familiar with the theory that other worlds or dimensions may co-exist in the same space with ours, by reason of a different molecular structure and vibrational rate, rendering them intangible for us; and one day, when I was indulging in a murderous fantasy in which, for the thousandth time, I imagined myself

In this little story, Clark Ashton Smith gives us yet another glimpse of an alien dimension, which this time is entered not so much in the interests of scientific knowledge as for the completion of a murderer's evil designs. We think you will never have read a story quite like this before.

throttling Halpin with my bare hands, it occurred to me that some unseen dimension, if one could but penetrate it, would be the ideal place for the commission of a homicide. All circumstantial evidence, as well as the corpse itself, would be lacking: in other words, one would have a perfect absence of what is known as the *corpus delicti*.

The problem of how to obtain entrance to such a dimension was, of course, an unsolved one, but I felt that it would not necessarily prove insoluble. I set myself immediately to a consideration of the difficulties to be overcome, and the possible ways and means of accomplishing the transition.

There are reasons why I do not care to set forth in this account the details of the various experiments to which I was drawn, during the next three years. The theory underlying my tests and researches was a very simple one, but the processes involved were highly intricate. In brief, the premise from which I worked was that the vibratory rate of objects in the Fourth Dimension could be artificially established by means of some mechanism, and that things or persons exposed to the influence of the vibration could be transported thereby to this alien realm.

For a long time, all my experiments were condemned to failure, because I was groping among mysterious powers and recondite laws whose motive-principle I had not wholly grasped. I will not even hint at the basic nature of the device which brought about my ultimate success, for I do not want others to follow where I have gone, and find themselves in the same dismal predicament. I will merely say that the desired vibration was attained by condensing ultra-violet rays in a refrac-

tive apparatus made of certain very sensitive materials, which shall be nameless.

The resultant power was stored in a kind of battery, and could be emitted from a vibratory disk suspended above an ordinary chair, exposing everything beneath the disk to the influence of the vibration. The range of the influence could be closely regulated by means of an insulating attachment.

By the use of the apparatus, I finally succeeded in precipitating various articles into the Fourth Dimension. A dinner-plate, a bust of Dante, a Bible, a French novel and a house-cat all disappeared from sight and touch in a few seconds, when the ultra-violet power was turned upon them; and I knew that, henceforth, they were functioning as atomic entities in a world where all things had the same vibratory rate that had been artificially induced by means of my mechanism.

Before venturing into the invisible domain myself, however, it was necessary to have some way of returning. So, I devised a second battery and a second vibratory disk through which, by the use of certain infra-red rays, the vibrations of our own world could be established. By turning the force from this disk on the identical spot where the dinner-plate and other articles had disappeared, I succeeded in recovering all of them. All were absolutely unchanged; and though several months had gone by, the cat had not suffered in any way from its fourth-dimensional incarceration.

The infra-red device was portable, and I meant to take it with me on my visit to the other realm in company with Edgar Halpin. I would, by this means, return in due course to resume the threads of mundane existence. But not Halpin . . .

MY EXPERIMENTS had all been carried on with complete secrecy. To conceal their true nature, as well as to provide myself with the needful privacy, I had built a small laboratory in the woods of an uncultivated ranch I owned, situated midway between Auburn and Bowman. Here I retired at intervals, when I had the requisite leisure, ostensibly to conduct some chemical experiments of an educative but far from unusual type. I never admitted anyone to the laboratory,

and no great amount of curiosity was evinced by my friends and acquaintances regarding its contents or the tests I was making. Never did I breathe a word to a single soul that might indicate the true goal of my researches.

I shall never forget the jubilation I felt when the infra-red device had proven its practicability by retrieving the plate, the bust, the two volumes and the cat. I was so eager for the consummation of my long-delayed revenge that I did not even consider a preliminary personal trip into the Fourth Dimension. I had determined that Edgar Halpin must precede me; but I felt it would not be wise to tell him anything concerning the real nature of my device, or of the proposed excursion.

Halpin, at the time, was suffering from recurrent attacks of acute neuralgia. One day, when he had complained to me of these, I told him in strict confidence that I had been working on an invention for the relief of such maladies, and had finally perfected it.

"Come out to the laboratory to-night, and you can try it," I said. "It'll fix you up in no time. All you'll have to do will be to sit in a chair and let me turn on the current. But don't say anything to anybody about it. I want to keep it secret, for the present."

"Thanks, old man," he rejoined. "I'll certainly be grateful if you can stop this damnable pain. It's like an electric drill boring through my head all the time."

I had chosen my time well, for all things were favourable to the maintenance of the secrecy I desired. Halpin lived on the outskirts of the town, and was alone for the nonce, his housekeeper having gone away on a visit to some sick relative. The night was murky and foggy, and I drove over to pick him up shortly after the dinner-hour, when few people were abroad. I do not think anyone saw us as we left the town. I followed a rough and little-used by-road for most of the way, and we passed no other cars. I felt that this was a good omen, and that everything had combined to further my plans.

Halpin uttered an exclamation of surprise when I turned on the lights in my laboratory.

"I didn't dream you had so much stuff here," he remarked, peering about with respectful curiosity at the array of un-

successful apparatus which I had discarded in the course of my labours. I pointed to the chair above which the ultra-violet vibrator was suspended.

"Take a seat," I enjoined him. "We'll soon cure you."

"Sure you aren't going to electrocute me?" he joked, as he obeyed my direction.

A thrill of fierce triumph ran through me, like the stimulation of some rare elixir, when he had seated himself. He was in my power, now: the moment of recompense for my ten years of humiliation and suffering was at hand. Halpin was quite unsuspecting; the thought of any danger to himself, of any treachery on my part, would have been incredible to him. Putting my hand beneath my coat, as I stood behind him, I caressed the hilt of the hunting-knife I carried.

"Ready?" I asked him.

"Sure. Go ahead and shoot!"

I had found the exact range that would involve all of Halpin's body without affecting the chair itself. Fixing my gaze upon him, I pressed the knob that turned on the current of vibratory rays. The result was practically instantaneous. He seemed to melt, like a puff of thinning smoke. I could still see his outlines for a moment, and the look of utter astonishment on his face. Then he was gone—completely.

PERHAPS it will be a source of wonderment that, having annihilated Halpin as far as all earthly existence was concerned, I was not content merely to leave him in the unseen, intangible plane to which he had been transported. Would that I had been so content; but the wrong that I had suffered was hot and cankerous within me, and I could not bear to think that he still lived, in any form or upon any other plane. Nothing but absolute death would suffice to assuage my hatred, and it must needs be inflicted by my own hand.

It now remained for me to follow Halpin into that realm which no man had ever visited before, and of whose conditions and characteristics I had formed no idea whatever. I felt sure, however, that I could enter it and return safely, after disposing of my victim entirely. The return of the cat left no apparent room for doubt on that score.

I turned out the lights, and seating myself in the chair with the portable infra-red vibrator in my arms, I switched on the ultra-violet power. The sensation I felt was that of one who falls, with nightmare velocity, into a great gulf. My ears were deaf with the intolerable thunder of my descent, a frightful sickness overcame me, and I was near to losing all consciousness for a moment, in the black vortex of roaring space and force that seemed to draw me nadir-wards through the ultimate pits.

Then the speed of my fall was gradually retarded, and I came gently down upon something that was solid beneath my feet. There was a dim glimmering of light that grew stronger as my eyes accustomed themselves to it, and by this light I saw Halpin standing a few feet away. Behind him were dark, amorphous rocks and the vague outlines of a desolate landscape of low mounds and primordial, treeless flats.

Even though I had hardly known what to expect, I was somewhat surprised by the character of the environment in which I found myself. At a guess, I would have said that the Fourth Dimension would be something more colourful and complex and varied—a land of multifold hues and many-angled forms. However, in its drear and primitive desolation, the place was truly ideal for the commission of the act I intended.

Halpin came towards me in the doubtful light. There was a dazed, almost idiotic look on his face, and he stuttered a little as he tried to speak.

"W-what h-happened?" he articulated at last.

"Never mind what happened," I told him. "What matters is what is going to happen now." I laid the portable vibrator on the ground as I spoke.

The dazed look was still on Halpin's face when I drew my hunting-knife and stabbed him through the body with one clean thrust, in which all the stifling hatred and cankering resentment of ten insufferable years was finally vindicated. He fell in a twisted heap, twitched a little, and lay still. The blood oozed very slowly from the wound, and formed a puddle. I remember wondering at its slowness, even then; for the oozing seemed to go on for hours and days. . . .

SOMEHOW, as I stood there, I was obsessed by a feeling of utter unreality. No doubt the long strain I had been under, the daily stress of indurate emotions and long-deferred hopes, had left me unable to realise the final consummation of my desire when it came. The whole thing seemed no more than one of the homicidal day-dreams in which I had imagined myself stabbing Halpin to the heart and seeing his hateful body lying at my feet.

But, at length, I decided it was time to effect my return; for surely nothing could be gained by lingering any longer beside Halpin's corpse amid the unutterable dreariness of the fourth-dimensional landscape. So, I erected the vibrator in a position where its rays could be turned upon myself, and pressed the switch. I was aware of a sudden vertigo, and felt that I was about to begin another descent into fathomless, vortical gulfs. But, though the vertigo persisted, nothing happened, and I found that I was still standing beside the corpse, in the same dismal milieu.

Dumbfoundment and growing consternation crept over me. Apparently, for some unknown reason, the vibrator would not work in the way I had expected. Perhaps, in these alien surroundings, there was some barrier to the full development of the infra-red power. I do not know; but, at any rate, there I was, in a truly singular and far from agreeable predicament.

I do not know how long I fooled, in a mounting frenzy, with the mechanism of the vibrator, in the hope that something had temporarily gone wrong and could be remedied, if the fault were only found. But all my tinkering was of no avail: the machine was in perfect working order, but the required force was wanting.

I tried the experiment of exposing small articles to the influence of the rays. A silver coin and a handkerchief dissolved and disappeared very slowly, and I felt that they must have regained the levels of mundane existence. But evidently the vibrational force was not strong enough, here, to transport a human being.

Finally, I gave it up and threw the vibrator to the ground. In the surge of the violent despair that came upon me, I felt the need of muscular action, of prolonged movement; and I started off at

once to explore the weird realm in which I had involuntarily imprisoned myself.

It was an unearthly land, such as might have existed before the creation of life. There were undulating blanks of desolation beneath the uniform grey of a heaven without moon or sun or stars or clouds, from which an uncertain and diffused glimmering was cast upon the world beneath. There were no shadows, for the light seemed to emanate from all directions.

The soil was a grey dust in places, and a grey viscosity of slime in others; and the low mounds I have already mentioned were like the backs of prehistoric monsters heaving from the primal ooze. There were no signs of insect or animal life; there were no trees, no herbs, and not even a blade of grass, a patch of moss or lichen, or a trace of algae. Many rocks were strewn chaotically through the desolation, and their forms were such as an idiotic demon might have devised. The light was so dim that all things were lost at a little distance, and I could not tell whether the horizon lay near or far.

IT SEEMS to me that I must have wandered on for several hours, maintaining as direct a course as I could. I had a compass, a thing that I always carried with me, but it refused to function, and I was driven to conclude that there were no magnetic poles in this strange world. Then, suddenly, as I rounded a pile of the vast amorphous boulders, I came upon a human body lying huddled on the ground, and saw, incredulously, that it was Halpin. The blood still oozed from the fabric of his coat, and the pool it had formed was no larger than when I had begun my exploration.

I felt sure I had not wandered in a circle, as people are supposed to do amid unfamiliar surroundings. How, then, could I have returned to the scene of my crime? The problem nearly drove me mad as I pondered it; and I set off again, with frantic vigour, in an opposite direction from that which I had first taken.

For all intents and purposes, the scene through which I now passed was identical with the one that lay on the other side of Halpin's corpse. It was hard to believe that the low mounds, the drear levels of

dust and ooze, and the monstrous boulders, were not the same as those among which I had made my former way. As I went, I took out my watch, with the idea of timing my progress, but the hands had stopped at the very moment that I had taken my plunge into unknown space from my laboratory, and though I wound it carefully, it refused to run.

After walking an enormous distance during which, to my surprise, I felt no fatigue whatever, I came once more upon the body I had sought to leave behind. I think that I went really mad, then, for a little while . . .

Now, after a duration of time which I have no means of computing, I am writing this pencilled account on the leaves of my notebook. I am writing it beside the corpse of Edgar Halpin, from which I have been powerless to flee; for a score of excursions into the dim realms on all sides have all ended by bringing me back to it, after a certain interval. The corpse is still fresh, and the blood has not dried.

Apparently, the thing we know as time is well-nigh non-existent in this world, or is seriously disordered in its action. Most

of the normal concomitants of time are likewise absent, and space itself has the property of returning always to the same point. The voluntary movements I have performed might be considered as a sort of time-sequence; but in regard to involuntary things, there is little or no time-movement. I experience neither physical weariness nor hunger; but the horror of my situation is not to be conveyed in human language, and Hell itself can hardly have devised a name for it.

When I have finished writing this narration, I shall precipitate the notebook into the levels of mundane life by means of the infra-red vibrator. Some obscure need of confessing my crime and telling my predicament to others has led me to an act of which I should never have believed myself capable—for I am the most incommunicative of men by nature. Though, apart from the satisfying of this need, the composition of my story is something to do; a temporary reprieve from the desperate madness that will surge upon me soon, and the grey, eternal horror of the limbo to which I have doomed myself, beside the undecaying body of my victim. . . .

DEATH FROM THE SKIES—*continued from page 39*

presidents attended his funeral, to walk behind his flower-hidden coffin, draped with the flags of fifty nations. His loss was irreparable; far greater, even, than the hundreds of thousands of lives that had been destroyed in that terrible crisis which, thanks to him, had now passed.

But he had not sacrificed his life, in that last experiment, in vain. From the records which he always kept of his researches, experts were able to rebuild the apparatus

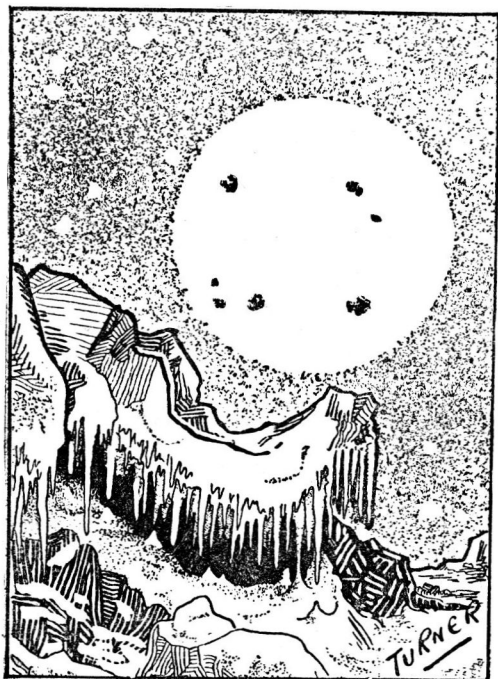
he had been testing, which was afterwards manufactured on a wholesale scale. And so, eventually, every fragment of the deadly Martian projectiles that remained hidden was located, and hurled back whence it came. Until that remote planet, its surface battered and riddled by the very missiles with which its sinister inhabitants had sought to destroy life on Earth, was as dead and untenanted as the Moon. . . .

Things to come . . .

FLIGHT THROUGH TIME

by Clark Ashton Smith

To That Last Remnant Of The Human Race Was Given A Sacred Duty . . . And A Great Adventure!



THE RED SPHERES

By

GEO. C. WALLIS

*Author of The Power Supreme,
Across the Abyss, etc.*

A SOLEMN company of men and women, less than fifty in number, were assembled in the common room of a great building. Serene intellect shone in their fine eyes, and was evinced by their high foreheads and delicate features. All, men and women alike, were dressed in simple, ample robes, held in at the waist by a girdle. They sat in comfortable chairs, arranged in a semicircle facing a smooth, white wall.

Presently, a musical note broke the silence, and a passionless voice spoke.

"The time is near," said the voice. "It has been decided, by telepathic vote, to glance once more over the ruins of the world. Once more, before we make the Great Adventure."

The light dimmed, and the white wall became a television screen, vivid with life and colour; natural colour, in stereoscopic relief, and sound in all the tones of reality.

"Since last we looked out on the Earth," the voice went on, with studied smoothness, "conditions have greatly deteriorated. The ice and snow have completely conquered the tropics, and more and

more of the automatic pictorial transmitting stations have been put out of action. We shall not be able to see much of our doomed planet. And when we have looked our last, we must nerve ourselves to face the future, to carry out the Duty."

The words, pregnant with fate, fell with deadly import on the silent assembly, but not one face changed its expression. For the Last Days were upon humanity; and in those last days humanity had attained to a steadfast inner peace and serenity of soul that all thought nothing could impair. Centuries—millenniums upon millenniums—of progress had pruned and refined the race, weeded out the animal instincts, banished fear and the sway of emotion, made men as gods.

By the time recording dial on the wall, it was plain to see that this was the third day of the second month in the year 9,586,304 of the Scientific Era. In that wonderful era, the old empires, nations, languages and modes of thought had all passed away, never to return. The world had become one State, with one tongue,

one understanding, one aim. Life, seemingly more complex, had become simpler.

To men of earlier ages, the Scientific Era would have been, at the summit of its triumph, a miraculous paradise. Every individual, in that favoured time, had been assured of a full and healthy life, free from all anxiety. War, disease and poverty—poverty of spirit as well as of body—had long been utterly abolished. Power beyond the most sanguine dreams had been realised, and men had moved over the face of their planet at speeds that made the girdling of the globe a matter of hours.

Artificial food, produced directly from the elements, and coupled with hygienically perfect digestion, made life a joy instead of an uneasy burden. Most of the necessary work was done by automatic machinery—even by self-repairing machinery. Along with perfect television and radio transmission, telepathy had been fully developed, and mind spoke to mind in silence, unhindered by distance. And thus armed with inexhaustible power (as it seemed to the men of those triumphant days), humanity had gone on to conquer yet more of the forces of Nature, and had finally reached out to the stars.

Man had mastered the secret of space-travel, had visited most of the planets of the Solar System, and even established perilous, short-lived colonies on Mars and Venus, and on one of Jupiter's larger satellites. Yet he had had to confess frustration, there; had been forced to admit that these worlds would never make homes for him.

So, he had cast longing eyes at the Milky Way, hoping to get into communication with other intelligences. And then, at the very apex of his career, his own coming doom had darkened his mental sky. A dying Sun had let loose the grim demon Cold upon the Earth, and not all man's seeming superhuman powers could hold back the advancing frost, could avert the coming debacle.

SLOWLY, inexorably, the cold had driven man out of the polar regions, out of the temperate zones, and crowded him into the tropics; it had frozen the seas, destroyed his roads, made aerial flight impossible, and buried his cities under a blanket of snow. Slowly,

When, million of years hence, our ageing Sun grows so feeble that his warmth is no longer sufficient to make life on Earth bearable, man may have to repair to some other planet, perhaps in another universe. What an immense responsibility will rest upon the last few survivors of the race, when the time comes for that last great effort to be made! Will they discharge their duty to humanity with credit to themselves, in that remote era? Let our author suggest the answer. . . .

the race had dwindled, taking refuge at last in great buildings warmed by electricity—generated by the last sources of power—chemical reactions, and the dangerous release of atomic energy.

Yet, though reduced in number, bereft of hope, the men of that new Ice Age retained their lofty courage, their steadfastness of soul. Long ago, all the old religions and comforting beliefs had fallen from man like a worn-out garment, leaving him spiritually naked to face the terrors of a callously indifferent Cosmos; and thus, alone in space, without a friend, he yet looked into the future without fear.

In the glorious days of man's triumph, he had established many thousands of automatic pictorial stations which kept watch over every mile of the Earth's surface, so that, at any moment, any person could view any part of the globe at will. And even now, after the invasion of the frost, some of these stations worked, sending their sight and sound through the ether. . . .

First, on the white wall-screen in that still and solemn chamber, came a view of Gibraltar. The famous Rock, still a landmark after the long lapse of years, was clad in a mantle of glittering white. Its top had once been flattened for the landing of giant air-vessels, and now held a cone of snow. The once blue Mediterranean was a sea of great bergs sailing through vast ice floes.

Then came Adam's Peak, Ceylon, sheering skyward from a tumbled mass of

glaciers. For there had been little change of land and sea for millions of years: the Earth, losing her internal heat, and no longer warmed by the Sun, had slept. Manhattan Island was seen as a piled-up reef of wreckage, snow-covered, on the shore of an ice-encrusted ocean. In quick succession came views from the once temperate zones, now Arctic in severity; and last, a scene from polar regions, a glimpse sent from the almost useless station on the North Cape—a faint, blurred glimpse.

Here Cold was King indeed; and in a desolation in which was no life of beast or bird or vegetation, intermittent showers of liquid air were falling from a cheerless, blue-black sky. In every picture were huge, round mounds, buried under deep drifts—the domed dwellings that were man's Cities of Heat, abandoned now and desolate. All other traces of the glorious civilisation that had covered the planet were effaced.

Rapidly, inexplicably, during the last half-million years, the Sun had cooled, dimming at last to a red-hot cinder; and humanity saw stark, inevitable death ahead. Saw it, yet did not flinch: emotionless, it accepted its destiny, bracing itself for the last great effort. Still as graven images, no flicker of dismay passed over the faces of those Last Men assembled in the Viewing Room.

When the final scene vanished and the light returned, the meeting dispersed in silence. One man and one woman, who had been sitting together, were the last to leave. Side by side, they walked slowly to their own small apartment, a place void of windows, lit by diffused light, heated only to a gentle, scarcely sufficient warmth.

The woman pressed several buttons on the polished metal table in the centre of the room, and the two drew chairs forward. A section of the table-top fell inwards, and up through the opening, from within the thick pedestal on which the top rested, came cups of fragrant, steaming liquid, and little plates bearing cubes and hexagons of vari-coloured artificial food.

The meagre meal occupied little time, and when it was done, the empty plates and cups were sent down through the opening and the flap upraised. Food and drink were as necessary as ever in those

last days, but the ritual and enjoyment of dining no longer gave zest to the necessity.

"SO THIS is the end, Alwyn," said the woman. "The end of humanity's struggles and triumphs—the end of you and me. We have been very happy, Alwyn."

"We have been happy, Lucia," the man replied gravely. "It is strange, but after a lifetime of self-control, after all the inheritance of mental discipline behind me, I feel some faint resurgence of the old emotions that we thought were overcome for ever. I find that I can still feel regret, still feel unreasonable resentment at fate. For do we not all know, though we may not acknowledge it even to ourselves, that the Last Effort will be useless, our last task mere folly?"

"Tell me again about the Last Effort, Alwyn," the woman said. "It is so long since I read the history of the Days of Triumph and of the Instructions that were left us by the Great Discoverers, that I have forgotten much. Another sign of weakness—that some of us find our memories at fault."

"When our doom became known beyond all manner of doubt, Lucia, the World Council put all the great intellects to work on the possibility of leaving the Earth and finding another home on a planet of some distant star. Travel within the confines of the Solar System is, of course, relatively simple compared with interstellar voyaging. As you know, it was then that two of our scientists simultaneously discovered the Red Metal, and the two Red Spheres were constructed. The Red Metal, suitably magnetised, becomes anti-gravitational—that is, it is *repelled*, driven out of the wrinkle in Space-Time in which the Earth rolls round the Sun, and then, still repellent, pushed further and further away from the wrinkle in which the Sun itself moves.

"Calculations made over a long period and with much difficulty, repeated in detail over and over again, have indicated that if the Red Spheres are magnetised at the moment agreed upon, they will travel at great speed towards the star Proxima. Air, water and chemical food stored in this Sphere will last our forty-four voyagers many years, and it is hoped that

the heating device will at least be able to counteract the zero temperature of outer space.

"More than that we cannot hope for nor predict, but have we not, these many generations, been educated into a belief in the sacredness of this task—the Last Duty? Whatever our personal doubts, we must perform that duty, so that, haply, man may survive his world. You do not question our obligations, Lucia?"

"Of course not, Alwyn. And yet, as you yourself admit, now that the Time is near, the old, puerile, illogical emotions are reawakened in us. It will be hard to leave the Earth, to go out into the everlasting void, to an uncertain fate. It is hard to think that you and I may perish in the shoreless sea of space. And it is impossible to believe that the journey can have a safe ending, in spite of all our science."

"Yet the Duty *must* be done," the man insisted, as much to confirm his own faith as to restore that of his companion. "We cannot be false to the trust which our ancestors have laid upon us. The Red Sphere must be launched upon its journey at the appointed moment. We must not fail."

"You speak of the Red Sphere," said Lucia; "but there were two vessels made, each to carry fifty chosen travellers. What has become of the other?"

The man's face clouded. He shook himself, as though to throw off something irksome, something unpleasant.

"Still the ancient emotions!" he snapped, irritably. "The second Red Sphere lies buried under the snow near the ruins of the old city of Emperia, ninety miles to the north, on the fringe of the mainland. And somewhere among those ruins, with the remains of a power station, there may still be men and women—at least, one man and one woman. You remember Selene, who was allocated to me by the Marriage Bureau? You know that she disappeared, she and Boris, but you will have heard nothing more. The Bureau naturally suppresses all information concerning those who disobey its necessary edicts. . . .

SELENE loved Boris, and with him and their aged parents she fled from here to Emperia, eighty-eight years

ago. She and I were then but thirty-seven—very young. She was beautiful. . . ."

"And you loved her?"

"Yes, Lucia. Why should I deny the truth? I loved her; but, then, I had not seen you with awakened eyes. I love her still, Lucia, but I have also loved you, and we have been very happy together. What ridiculous mummery it is, with our small numbers, to keep up the Council and the Bureau!"

"How did they reach Emperia, and why have we not heard from them, neither by radio nor telepathically? Can they use the second Sphere?"

"How they covered the distance—if, indeed, they lived long after the ordeal—we do not know. We do know that one radio message of defiance was received from them, and that afterwards, no communication proved possible. Their minds sent us no word, and they closed their thoughts to ours. They are exiles, outcast by their own desire."

"But they know the Duty? Will they not wish to join the Exodus?"

"How can I tell you, Lucia?" Alwyn was still irritable. "They may have cast off all allegiance to the past, and to the Duty. They may not have sufficient power to magnetise their Sphere. They may be dead. . . . But enough! You have disturbed me with all this talk of Selene. I can see her lovely face now, alight with resolve, when she refused my love and hurled her defiance at the Bureau. The Bureau!"

"Let us go and look at the Sphere that is to be our home when the hour strikes."

Hand in hand, feeling sentimentally silly, the man and woman left their apartment, passed down a long corridor on a moving platform, and came to a lift. In this they descended, and emerged into a vast underground chamber.

At one end of this lofty chamber huge dynamos revolved, and from queer, complicated machines nearby came the constant hum of chemical and radioactive power extraction. At the other end of the long subterranean cavern stood a great globe of red metal, which appeared to glow vividly in the diffused light that flooded the place from an unseen source. From the dynamos, cables led to contacts on the metal globe. No windows or visible opening broke the smooth surface of that im-

mense, red ball, though there were lines suggesting a door.

"It is long since I was permitted here," the woman said. "How shall we turn on the magnetising current when we are all within? Or must one be left behind—to die alone?"

"All that is arranged, Lucia. If one had to stay, the Council—three of us, including me!—would nominate the right person. But, fortunately, that will not be necessary. Switches inside will make the needful connections. The Time is near now, because our power is slowly failing. Like the coal and the gas and the oil, our supplies of radioactive material were used wastefully in the happy years gone by. If we delay, we shall not have enough left, even concentrating all our energy to the one purpose, to launch the Sphere. That concentrated current applied, the Sphere will tear itself out of this resting-place, bursting upwards, wrecking everything."

"I have been told that when the Red Metal is magnetised it will be transparent: it does not seem possible."

"Nevertheless, it will be so; hence, there was no need to weaken the shell by windows. Is it not an Article of Faith that we can trust those dead and gone Builders? We *must* trust them."

"One more question, Alwyn. Suppose the Sphere does not leave the Earth, but falls back and is wrecked? Suppose, when we are out in space, we find that we cannot reach another system—that we must perish of cold and hunger in our metal prison? Is provision made for that?"

"Provision is made for that, also. We have no wish to pass into the unconscious in that fashion. We shall have a swift and sudden end, if need be—of that we are all resolved. You must have heard of the latest discovery, the Fulminate of Sterarium?"

"The strange artificial element that, once ignited, begins a sphere of consuming flame, that instantly dissolves itself and all matter near it into invisible cosmic dust? Yes, I have heard of it—as a great, but now utterly useless, discovery."

"Not useless in the last emergency. In each of the Red Spheres is placed sufficient Fulminate to dissolve the whole globe and its contents to nothingness. It will only need the press of a switch to put an end to man's last hope."

"And to-morrow sunset is zero hour," said Lucia, softly. "Let us go back to our apartment, Alwyn. Let us be together, ourselves alone, for the short time that remains to us on Earth."

CLOSE together, hand in hand, they left the Hall of the Sphere, ascended the lift, traversed the moving platform, and gained their own private refuge. Both looked forward to a breathing-space, a few hours of peace and silent companionship, before they were called to fulfil the Last Duty; but this was not to be granted them, nor any of that little remnant of the human race.

Almost as soon as they were settled in their sanctuary, they became aware of discord and disturbance in the ether, of divided opinions and unexpected bitterness beating upon their brains. Astonished, pained, they attuned their minds to the clashing waves of thought, and found that in this last hour of Earth's life, man's hard-won restraint and cool courage had begun to break down. Humanity was not so superior to emotional weakness as it had deemed itself for so many centuries.

For though most of the forty-four survivors of the race were loyal to the tradition of the Duty, and determined to attempt the Last Task, seven of them had rebelled. These seven were five men and two women, of outstanding intellect and forceful character.

They challenged the right of the Past to rule the Present. They maintained that each generation should judge for itself. They declared that the projected journey could only end in disaster, and that it would be better to stay on Earth. They would not give up hope, they said, that even yet some new invention might save humanity, might tap some new source of power and heat. In any case, they affirmed, it was the more heroic to stay and endure to the end rather than desert the world of their birth in a mad venture that could only lead to destruction.

No such division of opinion, such radical divergence of thought, had stirred the Last Men for many thousands of years. Face to face with the final crisis, the long habit of subservience to tradition and to authority had suddenly, surprisingly, weakened. The controversy

grew heated, embittered. The Thirty-Seven were determined to carry out the Duty to which they had been dedicated from birth; they were both hurt and enraged by the unexpected opposition. On the other hand, the Seven were resolute in their heresy. Whatever the majority decided, they would not go, they fervently declared.

As passions rose, as long-repressed instincts were revived, this silent battle of souls became a fierce conflict. The Thirty-Seven vowed that all must go, that the Seven must obey their will. The Seven asserted, violently, that not only would they refuse to obey, but they would endeavour to prevent the Exodus. They needed the whole output of the power-plant for their own use, and it should not be wasted upon the Red Sphere.

It was deadlock for the moment; for as yet the idea of using physical violence was only the ghost of an idea in those super-minds. But it was there, waiting. . . .

"I am afraid—I who had believed that I should never be afraid," said Alwyn, "—afraid that the worst will happen. One of the Seven, Ariston, is the Chief Watcher of the Dynamos. He, alone, is reputed to possess the full secret knowledge of the atomic-energy plant. If he refuses his consent to the use of the current—"

"Then," said Lucia, "the Thirty-Seven will force him to obey. At least, they will try. Surely the strength of thirty-seven wills must prevail. We cannot let him stand in our way, whatever the cost. I feel that; feel it in the vibration of all our thoughts. But he is strong; he will not be coerced. There is only one way. . . .

"That it should come to this, in the end, after all man's triumph over Nature, and over himself! Yet I see it plainly: Ariston must die! He must die, that our Sacred Duty may be fulfilled."

THOUGH they were of the Thirty-Seven, and in their group consciousness knew this and realised its necessity, these two, as individuals, were stricken with horror, felt guilty and ashamed of their thought. And yet, as members of the Thirty-Seven, they knew that they must harden their hearts, that they must not hesitate. Ariston must die,

so that Kormak, his understudy, could use all the knowledge he had gained and set the Red Sphere free from Earth, start it upon its hazardous journey.

"We must will that he shall die," said Alwyn, recovering some means of composure. "It must be so. There is no other way. Our united wills must concentrate upon him, and he will cease to be. It will, at least, be sudden and painless."

"But will he die because we desire it?" questioned Lucia. "May not his firm, proud spirit defy us—refuse to be overcome? What then?"

"Thirty-seven souls must conquer one, no matter how strong that one may be," was the man's answer. "It is decided: *Ariston must die.*"

And each and every one of the thirty-seven loyal servants of the Old Tradition bent their wills to the task, thinking:

"Ariston must die, must die."

The grim fight was long, for Ariston was very stubborn, and the minds of his six adherents strengthened his resistance. Strange, most strange, was this silent fight, this battle of brains. Each of the combatants, alone in their apartments, or gathered in little groups, sitting motionless, wordless, fighting with all their mental powers. Never had there been such a conflict as this in the history of the world.

Then, quite suddenly, the tension relaxed, and it was over. The majority had had their way. As by one consent, victors and vanquished sought the common room that they might see for themselves what had happened, might have the relief of articulate speech.

Gone, now, was the lofty solemnity, the quiet, impassive demeanour of the earlier gathering. They could not meet each other calmly, face to face. They spoke in hushed whispers, conquerors and conquered alike. A deep sense of guilt and infamy weighed them down. For not only was Ariston dead, but two of his supporters also; and of the Thirty-Seven, one had perished in that psychic battle.

"But it is over, and the past can never be recalled. We must not allow it to unnerve us," said Alwyn, who had fallen naturally into the role of leader. "Our course is now clear. We must perform the Duty, following all the Instructions. Kormak will take Ariston's place, and the

four that are left of the rebels will doubtless submit to our wishes now that we have gained the victory, at such a terrible cost. Is it not so?"

"We submit," said the four, sadly.

"Then, at to-morrow's sunset we leave the Earth for ever, to face whatever fate the Cosmos may have in store for us. Let us work together; let there be no more dissension among us. So, perchance, we shall win back peace of mind and friendship in our common adventure. The hour is fixed: let us all be ready."

"We are prepared. We shall be ready," answered everyone, in thought.

AFTER arrangements had been made for the ceremony of committing their dead to the embalming of the frost, the assembly dispersed. Each individual nerved himself for the coming ordeal, trying to blot out of consciousness the searing memory of the recent conflict. Trying, but finding the effort beyond even their stern and disciplined wills.

It was then that into the turmoil of their thoughts came a strange, new voice. It spoke directly to Alwyn—a voice from the ruins of Emperia, a voice reaching through the ether, across the frozen wilderness.

"Selene speaking," came the words impinging on their brains. "Selene speaking, principally to Alwyn. Boris and I are here, alive though feeble. We had cut ourselves off from you, closed our minds to your influence, until to-day. But your awful thoughts, your terrible deeds, have surged around us, a fearful psychic storm that broke through our mental barrier. And knowing, now, that the Time has come, we wish to tell you that we, too, shall essay the Last Adventure.

"Yes; we have worked hard all these lonely years, and we feel confident that our power-plant will be strong enough to magnetise our Sphere. We shall start at the same moment as you, and perhaps, carrying a lighter load, our Sphere may outstrip yours and reach some haven first—if, indeed, any haven may be reached.

"Though we could never have been true mates, Alwyn, I have always admired you and respected your memory. It is good to think that on some distant planet we may meet again. Till then—if then—farewell!"

"To hear from Selene after all these

years!" said Alwyn. "It is wonderful. We all thought that she and Boris were dead, long ago."

"You still love her?" asked Lucia.

"Still," he confessed. "Surely we have not yet degenerated so far as to close our eyes to truth, even if it be unpleasant? Yes, I still love Selene—but I love you none the less, Lucia."

"We can yet confront uncomfortable facts with steady gaze, Alwyn. I can. You can. So here is another truth. Had Boris been allotted to me by the Marriage Bureau, I would have welcomed him gladly. But with you I have been happy. Our minds have been in tune. Now let us rest, for the time is short."

The day passed; sunset neared. Kormak tested his energy supplies, his dynamos, and all the connections. The air-conditioning and heating devices in the Sphere were checked over, and found to function perfectly. The door was opened, and slowly, gravely, the forty men and women filed in.

The burden of their relapse was heavy upon them still, and scarcely a word was spoken, scarcely a thought passed from mind to mind. Each one walked, as it seemed, alone, seeking no contact with his neighbour. The embarkation complete, the door clanged dully into its air-tight socket.

Came the moment of Destiny. Alwyn pulled over the first switch control, a direct mechanical connection, arranged to magnetise the Red Metal sufficiently to free the Sphere from the Earth's grip. Once out of its deep cavern, out in the air, remote radio controls would complete the work and speed the globe on its way. These controls must be contacted before the vessel reached the Heavyside Layer.

The Red Sphere, in one convulsive movement, tore itself out of the underground chamber, soaring forcibly upwards to the chilly air. Through the transparent metallic shell of the vessel, the men and women within saw the collapsing walls of this, their last earthly habitation, fall in final ruin.

Rising slowly, now, they saw below them a world of white, streaked with dull-red gleams from the dying Sun. A world of ice and snow, a scene of utter desolation in which nothing lived, nothing

stirred. Even here, on what had once been a tropical island, the promise of liquefying atmosphere was very near fulfilment. Not much longer could the Exodus have been deferred. . . .

A WORLD in which nothing lived, nothing stirred? They looked to the north, towards ruined Emperia; and presently, out of the dull-red haze, a dark object became visible, rising upwards and southwards in a long, slanting course. It could be only one thing.

"Selene and Boris!" cried Alwyn to Lucia, who stood beside him. "They have succeeded. They have mastered the secret of the power, remembered the Instructions. They have answered the call of the Past, repented of their rebellion. But, surely, they must already have given their Sphere full magnetism, they are travelling so fast. While I am reluctant to make my final contact—I feel a touch of the old, reasonless sentimentality, and wish to linger over my last glimpse of Earth. . . .

"But I cannot wait much longer, or we shall be out of range of the remote controls. As it is, I can see that the Second Sphere will soon overtake and pass us, whatever we do, unless . . . Ah! I see."

"Yes, Alwyn; I see, too! You need not try to shut *me* out of your thoughts, however you may shut out the others. The Second Sphere is coming up so fast, and at such an angle of flight, *that it must certainly crash into us!* This was never foreseen by the Builders. Something must have gone wrong when the Second Sphere was torn out of its cradle. What will happen, Alwyn?"

"The impact will shatter both globes," Alwyn replied, with his mind. "It will be the end of humanity. After all the ages of endeavour, of suffering and triumph—the end. But we must not crash—we *shall not!*"

"How can you avert the disaster, Alwyn? No matter how swiftly you urge on our Sphere, the other will surely overtake and destroy us. Neither we nor they can divert our vessels one fraction from their course. What can you do?"

And while she formulated the voiceless question, the woman read the unspoken answer in Alwyn's mind.

"Not that! Not that!" came the mental cry.

"Yes; that is the only way—the Fulminate of Sterarium. The switch is here, under my hand. One touch, and the Sphere, and all of us, will be fused to nothingness. Then Selene and Boris, the last forlorn hope, can continue their journey. Be ready!"

"You would do this to save Selene?" said Lucia, silently. "I should be beyond the clutch of the old barbaric feelings, yet I cannot help a pang of jealousy. And you, because you love Selene, would sacrifice the others, yourself and *me*, so that she might live a little longer!"

"I would—I shall," Alwyn answered. "Surely, you must see that there is no alternative? It will be carrying out the Duty. If I do not save the Second Sphere, both will be destroyed, and the faintest hope of man's survival will be for ever lost. Be brave! A few seconds more, and I shall press the switch."

Unseen by their companions, the fingers of the man and woman met in a last, lingering clasp. Alwyn's free hand closed over the knob that would detonate the Fulminate of Sterarium. Larger and larger loomed the Second Sphere as it neared them, rising fast. Then, from the watching group behind them arose a sudden murmur of dismay as they, too, realised what was happening, saw their peril, and sensed their leader's intention—too late!

"Farewell," breathed Alwyn, and forced down the fateful switch.

Instantaneously there came a blaze of fierce light, and the First Sphere became a glowing star of white flame that suddenly dimmed, shredded away in wisps of pale vapour, dissolved to a nebulous cloud of dust, and vanished. And through that dissolving cloud, astonished and perplexed at the strange phenomenon, the man and woman in the Second Sphere drove onwards and upwards towards the stars.

They knew only that they were alone in space, bound they knew not wither. . . .

That Icy Planet Seemed Devoid Of Life . . . Yet Life Was There, Mysteriously Concealed



CHILD OF NEPTUNE

By

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CHAPTER I

THE MYSTERY OF NEPTUNE

IT MUST be admitted that inter-planetary communication is still in a rudimentary stage; nevertheless, some astonishing developments have already taken place. Beginning with the humble experiments of Hertz in 1887, progress has been variable but uninterrupted. Hundreds of brilliant men have devoted their lifetimes to the work. Episodes of intense human interest can be found along the way of its development. This account deals with one of them.

The story of any great achievement is marked by certain epochs, certain milestones, each of which is associated with the name of a genius. After Hertz came Marconi, who, about 1896, expressed the existing theoretical knowledge in his concrete and workable wireless telegraph. He was followed by de Forest, who, about 1900, developed the three-electrode vacuum tube, making wireless telephony commercially possible. Then, for half a century nothing startling happened;

efforts were devoted chiefly to the increase in transmission power and in the range of radio waves.

It was not until 1967 that Takats, at Budapest, experimentally confirmed the belief of scientists that radio waves, since they were electromagnetic waves of the same nature as light, could be reflected and refracted. Up to Takats' time, we lacked the proper media for this reflection and refraction. Using the gigantic crystals of aluminium developed at Kansas University by H. K. F. Smith, and machining them into shape, Takats succeeded in focusing radio rays as accurately as the light rays from a cinema projector are focused on a screen.

With his projection system four miles long, he focused radio waves of receivable intensity on the planet Mars. Two years later, signals were picked up from Mars, Venus, and from the direction of both Saturn and Jupiter. That is how fast things moved. It was demonstrated beyond a doubt that these signals were the attempts of intelligent beings to communicate with us. Yet, by the time they were comprehended even vaguely, not one per-

son remained who had lived at the time of Takats' discovery.

In 2099, a young kindergarten teacher at Corpus Christi, Texas, Miss Geneva Hollingsworth, published a paper in *The Scientific Monthly* that gave the fundamental clue to the messages which had kept coming in on the instruments for one hundred and thirty years. The conceptions of number, rhythm, geometry, Solar System position and Solar System periods are so simple, and now so thoroughly understood, that it seems incredible that it required more than a century to grasp them. But though the fundamental conception was simple, the development of actual communication was a most complex and tedious matter. Little Miss Hollingsworth was long dead and gone before the interplanetary code was developed; and she would have shrunk terrified from the complicated proportions her simple idea assumed, had she been able to see it put into practice.

However, when the year 2000 dawned, a fairly fluent communication was going on with Mars, Venus, four of Jupiter's moons and one of Saturn's, and an unsolved mystery with regard to Neptune was engaging the attention of experimenters. Astronomers admitted that the bodies from which intelligible messages were being received were in such physical condition that inhabitation by some kind of intelligent beings was a granted possibility. But living creatures on Neptune! That was hardly conceivable. That bleak and distant planet was too cold and dark.

Yet signals came from it. Were they intelligent signals from living beings, or not? No one knew. Certainly, no one had as yet been able to understand them. They were merely noises in the receivers; yet they were too uniform, too persistent and regular, to be passed over as incidental or meaningless phenomena. They demanded an explanation of one kind or another.

THEN, in 2345, came the first successful interplanetary voyage. Thirty-five years before, a daring explorer by the name of Bjerken had gone in a trans-geodesic vessel to the Moon, but had never been seen or heard of again. Now the eyes of the world were turned with eager curiosity in the direction of Rex Dalton, the Kentucky physicist, who

Here is one of those popular stories which deal with the exploration of other worlds, and which illustrate how futile it is for us to consider them as possible abodes of life only in those forms to which we are accustomed on this planet. It is the combined work of two American writers who have appeared many times in *Amazing Stories*, one of whom we introduced to our pages in the last issue, while the other is among the few women writers of science fiction.

on January 7th was starting out for Venus. The radios, which were buzzing at the last moment with news of the preparations for departure, suddenly gave out the announcement that the famous English astronomer, Myron Colby, would accompany Dalton on his perilous journey.

The voyage of Dalton and Colby was of immense significance, not only in the annals of astronomy and physical-mathematics, but likewise in those of biology, since it entirely disposed of man's previous conception that, if evolution progressed on two different worlds, it must necessarily do so along parallel lines. When the space-ship *Pioneer* descended through the steaming atmosphere of Venus, its occupants gazed through the transparent hull at a strange sight. Lurking beneath the pale fronds of gigantic, stringy and palm-like vegetation were thousands of huge worms!

Their heads were large, and contained points which suggested terminal organs of the special senses; and if the aggregation of special-sense end-organs constitutes a face, the faces of these things were most repulsive. They were twitching, writhing and darting back and forth; they seemed to be engaged in a tremendous activity, and even handled a good many blocks and sticks and other things among them. The Earth-men were disgusted at the slimy spectacle.

In a few moments the shell of their vessel was so hot that, to save themselves, they were compelled to start the refrigerating apparatus they had brought with

them in anticipation of just such a situation. They raised their vessel and cruised about, looking for cities, for intelligent beings, and finding nothing but slimy life, settled again. Near them was another, intensely active mass of worms. Suddenly, a message sounded on their radio, in the interplanetary code:

"Hello! Are you intelligent beings in the crystal sphere that has dropped from the sky?"

Dalton coded back:

"We are humans from the planet Earth. Where can we find you?"

Then the two men gasped in astonishment when their radio said:

"You are among us now, looking at us. Come out. We wish to look at you more closely, to see if you are as civilised as we are."

The two scientists looked at each other in puzzled bewilderment.

"We'd better test the atmosphere first," Dalton suggested.

They had come prepared for this. They had registering thermometers, barometers, and hygrometers and burettes for automatically gathering samples of the outside air, which could be analysed in a few minutes with their equipment. The results of their tests showed that the atmosphere resembled that of the Earth, with some excess of carbon dioxide and oxygen; the temperature was 60° Centigrade, and the pressure 790 millimetres of mercury.

"We cannot come out," Dalton radioed. *"Our bodies will not stand your atmosphere."*

They had to make some plausible excuse for not emerging. . . .

These two were the first scientists to return alive from an interplanetary voyage. Their trip may not have been entirely satisfactory from the standpoint of the romantic or the sensational, but its scientific significance was epoch-making. It gave the first evidence that intelligent beings may exist under other conditions than ours, and in a form other than that which we have learned to know as human.

PROFESSOR MACLEAN still retained all the keenness of his mental powers, even though he was ninety-two and confined to his bed. Of late his death had been expected every day, for he was so weak that he talked only with

great effort. Into his room every morning came Patrick Corrigan, his friend, and his successor at the University. On the day following the return of the *Pioneer*, the old man was brighter than ever.

"Corrigan," he said, and the younger man leaned forward to catch the faint words, "this is a great day for me. People give me credit for having had much to do with the building up of interplanetary communication. I would be ready to die, now, were it not for that mystery about Neptune. That makes me feel like a failure. But now that these young men have returned from Venus I feel encouraged. Some day, the question of Neptune will be answered."

For a moment the feeble voice trailed off, wearily; then it began again:

"Baffling, this Neptune business. Those low-pitched, tapping sounds that come through our instruments must mean something. There is a rhythm, a sort of mathematical suggestiveness, about them. I could die in peace if only I knew what they mean."

Corrigan waited respectfully, and somewhat puzzled. He had a solution to propose for the Neptunian mystery, and hesitated to present it because of a foolish notion that he might thus be the cause of Professor MacLean's death. Finally, he spoke:

"You followed the radio reports of Dalton and Colby's trip, didn't you? I've been pondering on those reports. Do you remember what they said about the quickness of the worm-creatures? Doesn't that remind you of the uncomfortable speed with which the Venusian messages come in? Only the experts can make anything of them. On the other hand, Mars is slower than we are; quite easy to receive in code. Now, suppose——"

The aged Professor sat up suddenly, with an effort, bringing a look of alarm into Corrigan's face. The latter continued warily:

"Suppose that the messages from Neptune are so slow that they fail to register with us; that because of their slowness, we cannot translate them into sounds!"

He stopped abruptly. Professor MacLean lay white and still; there was no evidence that he lived. Corrigan stood in stunned silence. Presently, the Professor raised a white hand, and a wan smile

played over his features.

"Correct!" he whispered. "It almost overcame me. Now go and work it out experimentally. I shall wait to hear from Neptune."

For a man like Corrigan, the working-out of the idea was a simple matter. The principle of recording radio impulses electro-magnetically on a steel tape was still much the same as it was centuries ago. Assuming, hypothetically, that the tapings he had been hearing from Neptune were individual wave-impulses, a simple calculation told him how fast they must be recorded in order that they might be reproduced as sound. He rigged up this much of the apparatus, and set it making permanent records of the Neptunian impulses. Meanwhile, he adapted an ordinary transatlantic dictaphone to reproduce sounds from the steel tape.

He had three days' length of tape when he was ready to try it out for the first time. He wheeled the machine into Professor MacLean's room. The aged scientist looked as though he could not last much longer; Corrigan wanted him to hear, before he died, whatever the instrument had to tell them. With beating heart, he adjusted the tape in the dictaphone and started the tubes.

"—*scientists of other planets*—"

That is what the instrument spoke, quite clearly. That was the result of seventy-two hours of patient recording of Neptunian signals: about a word a day. Corrigan looked anxiously towards the bed.

"I'm still in good shape," the Professor smiled. "I must live long enough to hear the first complete message from Neptune."

No youngster awaiting Christmas was ever more impatient at the lagging footsteps of time than was Corrigan, during the six weeks he allowed for the accumulation of the first message from Neptune. He tried to absorb himself in other work, but it was no use. He could not stay away from the recorder, but hovered about it constantly, which only made the time drag more heavily.

Finally, one momentous day, the apparatus was again wheeled into Professor MacLean's room, and with trembling fingers, Corrigan threaded the steel tape. He turned a switch, and they listened for the voice, which began in the well-known interplanetary code:

"Elzar, physicist on the planet Neptune, sends greetings to the scientists of other planets. The Earth, Mars, and Saturn VIII we can hear. The others are too rapid for us. For ten of our years we have been sending out messages. Answer, if you hear this. Elzar, physicist on the planet Neptune, sends greetings to the scientists of other planets. The Earth, Mars, and Saturn VIII we can—"

Apparently, a repetition of the message had begun. Corrigan turned to see how the long-awaited message had affected the old scientist. A smile of peace and contentment rested upon the wasted countenance. Professor MacLean's indomitable spirit had waited long enough to learn the secret of mysterious Neptune; then it had taken flight to a place where Neptunian affairs mattered little, or not at all.

CHAPTER II

THE WORLD OF ICE

COULD it have been that the scientist in him was stronger than the friend, when Corrigan dispatched a reply to Elzar of Neptune before seeing to Professor MacLean's funeral arrangements? Not necessarily; yet even while the famous man's funeral was proceeding, under the lenses and microphones that were broadcasting it through the entire world, the slow-tapping signals from Neptune were again being magnetised into the steel tape. But it was over six months before the following message was heard out of the dictaphone:

"Elzar of Neptune has received the message of Corrigan of Earth. For many years we have had analysers for receiving the ultra-rapid messages from Mars and Venus; for many years our analysers which are set to catch Earth's messages have been silent. To-day, we are overjoyed to hear them speak. That tells us that you have understood our signals."

"Noting that you have already made a successful trip to Venus, and not having ourselves as yet conquered the problems of space-travel, we invite you to visit us on Neptune. You will find no lovelier spot in the Universe. Our extensive forests and wonderful cities will amaze you. I live with my child in one of the largest cities, exactly on the Equator and turned

to the Sun at XIX-1118-00Boo. That will help you to find me.

"Our dwelling stands on the edge of a cliff overlooking a great sea, the greatest on the planet. We live happily, though sometimes sorrow besets us, because huge and vicious beasts come up out of the sea and prey upon our people. Only yesterday, a fine child was destroyed. But Elzar bids you come, and welcome."

This remarkable invitation from another world would give Corrigan no peace. For months his mind dwelt on the idea of going to Neptune. In the interval several other messages came from the planet, all from Elzar, who manifested a powerful and interesting personality. Who but an astounding character like Elzar would dream of extending an invitation across those vast reaches of space? And who but a genius like Corrigan would think of accepting it? For accept it he did!

The first thing he did was to enlist the aid of Rex Dalton in the project. However, Dalton's space-ship could not be used, for the simple reason that it was too slow for that enormous distance. Theoretically, the velocity of light was the limit of speed for space-ships of the geodesic-hurdling type, but in practice there were numerous obstacles to such a velocity. Dalton had made his ship so that it traversed the 26,000,000 miles to Venus in forty-three hours, with a mean velocity of 170 miles per second. At this rate, it would take about eight months to cover the 2,674,000,000 miles to Neptune, at the planet's nearest position, so a maximum speed about four times that of the original ship was decided upon. This would give a velocity of between 600 and 700 miles per second, which would get them to Neptune in fifty days or less.

THE late afternoon of July 11, 2347, saw the geodesical flier, *Neptunian*, launched into space taking with it Corrigan and Dalton. The two had waited with fast-beating hearts for the moment of severance from all earthly ties, and watched with interest the curiosity and anticipation in the faces of those who crowded about outside. Corrigan manipulated the controlling levers; for an instant they were pressed crushingly against the floor, and then they floated strangely free, with the Earth rapidly dropping away

beneath them.

For a few seconds, nothing was heard within the vessel but the sharp intake of breath. Conversation was out of question at such an exciting moment. The *Neptunian* was one hundred miles above the surface of the Earth before the occupants of the vessel looked around and spoke to each other.

Land, water, mountains and valleys beneath them were swiftly coalescing and rounding into a sphere. They had barely begun to feel warm from the friction of the atmosphere, when they were out of it, and Corrigan threw the switches to full-speed. In a few seconds more, the Earth appeared no bigger than a bass drum.

There followed a period of space-sickness, during which the travellers were intensely miserable. They were afraid they would die, and then afraid they would not die. They wondered what insane idea had possessed them, to embark on such a trip. Eventually, they sank into a stupor lasting several hours, and from which they awoke much refreshed. The disorder did not wear off, however, for about sixty hours. Dalton was the first to feel really well again.¹

By means of a telescope with lenses of the marvellous refractive substance, *protite*, Corrigan and Dalton studied everything they could see from their vessel. They encountered several large planetoids,² and passed within half a million miles of Uranus—a mere stone's throw.

"I wonder," mused Corrigan, studying

¹Later researches have demonstrated that space-sickness is due to the removal of the effects of gravity from the fluid in the semi-circular canals of the ear, which control the equilibrium of the body. Normally the fluid fills the lower halves of the two vertical canals and the entire horizontal canal. In a geodesic-hurdler, it is freely distributed over the entire interior of the canals, and severe vertigo, nausea and vomiting result. Most people become adjusted to the condition in two or three days.

²A geodesic space-flier is in no danger of colliding with any of the small wandering bodies of space, because it is moving along a dimension at right-angles to the three usual dimensions. Theoretically speaking, it is not in the Euclidean space at all. Space-travellers report seeing numerous bolides and asteroids which, however, seem to be repelled by their vessels. On a path at right-angles to a geodesic a repulsion exists similar to that of like magnetic poles, and it is not possible to approach a mass of matter of any size unless power is applied and the course changed.

the vast, pale-green sphere, "whether Uranus is a dead world? Doesn't it seem a logical explanation of his constant taciturnity?"

"It seems to me," said Dalton, thoughtfully, "that it is the inevitable trend of the forces of Nature to build up life. Life arises out of matter, regardless of what the conditions are. Even on our own planet, life exists in regions that would seem most unfavourable: the burning sands of the desert and the frozen seas of the polar circles. Life there may be, even on Uranus, but not necessarily life as we conceive it."

"You may be right," Corrigan sighed.

On each of the fifty days the journey lasted, observations and calculations of their position were made. Almost at every hour, they knew exactly where they were. And, when the disc of Neptune began to fill the observation frame, they gradually altered their angle with the geodesic and slowed down their speed, to prepare for landing. Great cloud strata, pierced by jagged mountain peaks which rose to a height of twenty-five miles above the planet's surface, veiled the greater part of the strange world from their eyes.

They had but a dusky twilight by which to see. Shadows were black as ink; a favourable reflecting surface shone dazingly. However, with pupils widely dilated and retinas rendered hyper-sensitive by long absence of refracted light, they were able to make out details distinctly.

"We seem to have struck an uninhabited portion of Neptune," commented Dalton, unable to keep an undertone of misgiving out of his voice. "Like Martians landing in the Sahara Desert or the polar wastes."

"Then we'll move around and have a look at some other places," Corrigan replied, and suited the action to the word. Soon, the awful grandeur of the bleak landscape was passing like a panorama beneath them.

FOR two days they circled about, but found no variation from the scene that had first greeted them. Nothing but dry, fearful canyons and bare, towering crags tumbled in chaotic masses, their tops for ever wreathed in dense, white cloud.

"Not much like an abode of life, is it?" Corrigan mumbled through set lips.

They circled the planet about the equator, and then from north to south, but saw only the same dismal rocks, the same cold, scurrying vapours and endless swirls of snow. Truly, a strange topography for a civilised world!

"There must be some mistake in the messages," Dalton offered. He didn't understand interplanetary communication as Corrigan did.

"Mistake!" Corrigan exclaimed. "A mistake in the interplanetary code is more difficult to admit than what we see below us."

"Suppose the messages came from some other planet," suggested Dalton. Corrigan did not think it likely.

"We translated the word 'Neptune' from the code into English. But the code signal for Neptune gives the size, distance from the Sun, and position relative to other planets. It is no more possible to conceive that the message came from some other planet than it would be for me to believe that some other person was talking to me with your voice.

"There can be no doubt that the message came from Neptune; yet this is Neptune, and this is an uninhabited world. From the bleakest mountain summits to the depths of those black gorges, there is neither plant nor animal life. Now explain it as you will. I can't!"

"Perhaps," said Dalton, "the Neptunians live in caverns within the planet. If we land and investigate——"

Corrigan again demurred. "Remember that Elzar's message said he lived on the equator, on the edge of a cliff that overlooked the greatest sea on Neptune. Now, where's the sea? We've scoured the whole globe, and found no sea. Still, we can only locate the spot by his bearings, and see what's there."

By dint of a couple of hours' travel and a half-hour's calculation, they located XIX-1118-00Boo on the equator. There, indeed, was a looming cliff, and below it a chasm, a veritable abyss. But the cliff was bare and bleak; naked rocks jutted out of dry ice, and the chasm, which seemed bottomless, was devoid of water. Of anything even remotely resembling a sea, there was no sign.

Dalton proceeded to test the atmos-

phere, as he had done on Venus. When he hauled in his instruments and calculated the data, they were astounded to find a temperature of -260° Centigrade and a pressure of 30 millimetres of mercury. There were traces of inert gases of the neon type, and quantities of hydrogen, oxygen and carbon-dioxide, almost too small to determine chemically.

"That stuff out there must be hydrogen snow!" gasped Dalton, sinking into a chair.

"Certainly, no life can exist there," Corrigan sighed.

And so, with heavy hearts, they turned the *Neptunian* towards the Earth.

CHAPTER III

THE ENIGMA SOLVED

BACK on Terra, the disappointed scientists told the story of their fruitless journey through the depths of interplanetary space. But a surprise was in store for them. During their absence, there had been time for the exchange of a few short messages with Elzar. These had been received and answered by a certain promising young man named Sylvester Kuwamoto.* He had been little more than a student in Corrigan's laboratory, prior to the trip into space; but he had shown such a brilliant aptitude for the work of recording and reproducing the *Neptunian* messages that Corrigan had given him a permanent position in the laboratory, and during his absence had left him in charge.

Between the time of Corrigan's departure for Neptune and his return to Earth, Kuwamoto had sent and received the following messages:

Kuwamoto: *Two of our scientists have gone out in a space-ship to visit you on your world. They will arrive in forty-nine of our days. Watch for them.*

Elzar: *We are happy because we shall have visitors from Earth.*

Kuwamoto: *Please notify us as soon as*

* This curious surname is a relic of the epoch, several hundred years past, when races and nationalities existed separately on Earth. The name is suggestive of the Japanese race, which occupied the island of Japan, spoke a curious language, and was quite isolated, until it joined the general intermingling of races which resulted in the population of the entire globe becoming one homogeneous race.

you see them.

Elzar: *It is now the sixty-second terrestrial day, and your people have not yet arrived. I fear that the space-ship has met with disaster.*

Ten days after this message was interpreted, Corrigan and Dalton arrived back on Terra. Corrigan immediately radioed this message to Elzar:

"*There is some great error. We went to Neptune, looked it all over, but saw no sign of life or habitation. We surveyed the spot which you designated as your home, but found nothing. We found conditions there in which no kind of life could exist. Can you explain?*"

The reply was anticipated eagerly, but it required the usual long interval to record, before the few moments of interpretation could be enjoyed. It ran:

"*We watched closely for you, but did not see you.*"

Then followed a check of the Solar System data on the Earth and Neptune at critical periods during the voyage. Direction-finders and range-computers were put to work. Interplanetary code checks and re-checks were made. Neptune's position was checked back and forth. The messages, indubitably, were from Neptune.

Fifteen months passed, during which the *Neptunian* affair remained a puzzle to the entire world. There was some joking at the expense of Corrigan and Dalton, and there were people who scoffed, both at the account of their voyage and at the *Neptunian* messages which continued to arrive, with systematic precision, at regular intervals of from three to six months—but which shed no light on the mystery.

Corrigan and his assistant seemed to live primarily for those few moments when, the steel tape threaded, they could sit in their laboratory and listen to the words of Elzar. They had grown very fond of that elusive scientist of another world. His amiable personality seemed to reach across the void, challenging them to find him, wherever he might be.

One day, in the laboratory, after the interpretation of a particularly encouraging message, Sylvester Kuwamoto began to speak to Corrigan, then seemed to think better of it. He cleared his throat to cover his embarrassment and lapsed into silence.

"What is it?" asked Corrigan, kindly. "Never mind me, you know."

"Nothing special," the younger man demurred, "only—I can't quite explain how I feel about Elzar. It is—well, it's like talking with God. We can't see him, we can't find him, yet we know that he exists and that he is good. Do you—er—see what I mean?"

"Precisely," Corrigan replied. "To be quite frank, I've had much the same feeling myself, though I've never tried to put it into words. Elzar's personality is—well, an all-pervading one. We feel its influence through millions of miles of space! Too bad we can't know what he looks like. I can't help imagining him as an old man with a flowing beard and a kind face.

"We human beings put a lot of stock in our sense of sight, don't we? Unless we can see an object, we feel that we know little about it. Yet I venture to predict that, in time, we'll develop other senses than the five by which we now become aware of our environment."

"That may be," replied Kuwamoto, musingly. "But I, for one, am not willing to wait until more senses develop. I'm content with the five I've got, and I want to see Elzar!"

AFTER Corrigan had left, Kuwamoto sat buried in deep thought. "Man's reason exceeds any of his five senses," he argued to himself. "Reason is more important at this age than instinct and emotion, which have served their terms in the past."

A strange idea, vague and incomplete, was hovering about the outskirts of his mind, trying to get in. There was an explanation to this Neptunian puzzle; he almost had it within his grasp when, suddenly, it eluded him. There was something that Dalton had said which was the key to it. . . .

For weeks he was moody and absent-minded. He re-read the reports of the Venusan and Neptunian trips, and talked repeatedly with Dalton and Corrigan. Pretty soon he grew more cheerful, and carried sheets of scribbled paper stuffed in his pockets. Then, early one morning, he raced, panting, into Corrigan's laboratory.

"Shut it off!" he said, pointing to the

apparatus on which Corrigan was working in an effort to solve the puzzle of Neptune. "You'll never find the answer that way."

"You've got it!" exclaimed Corrigan, dropping his instruments. "Tell me!"

Kuwamoto began impressively:

"Exactly five hundred years ago, Leverrier discovered Neptune—not with material instruments, not with his five senses, but by abstract reasoning. From disturbances in the orbit of Uranus he predicted Neptune's position so accurately that Galle, in Berlin, was able to turn his telescope to that spot and see it. Likewise, abstract reasoning has discovered the inhabitants of Neptune. I can tell you how to make an instrument to see them."

Corrigan stared.

"Neptunian processes are slow," Kuwamoto argued.

Corrigan nodded.

"And you couldn't see the people?"

Corrigan shook his head.

"Nor the animals? Nor the plants? No life?"

Corrigan ceased responding.

"Mountains of ice. Hydrogen snow. Low temperature. Low pressure. And yet there is life there—life that was invisible to you. Can't you see, yet?"

Corrigan waited patiently. Kuwamoto went on:

"Out there, in that rare atmosphere, so rare that you could only barely detect it with instruments of precision, no life such as we know it can exist. It must be a different form of life. Don't you see? The living things are gaseous bodies! Composed of cells, with nuclei and chromosomes and everything. But the cells are huge ones, consisting of gases instead of colloids."

Corrigan sprang to his feet. His face was pale with sudden excitement.

"By God! You're right!" He slammed his powerful fist down on the bench, causing a couple of flasks to topple and crash.

"Living creatures," Kuwamoto repeated, "intelligent creatures, plants and animals, all composed of gas-cells. Huge cells, with slow chemical processes, all working together just like the cells in our own bodies. Only, out there in that cold, metabolism is very slow."

They sat and stared at each other.

"But it is life, just the same!" Kuwa-

moto exclaimed. "Different from our kind of life, that's all."

Corrigan pondered awhile. Then he said:

"That hypothesis explains all the data thus far observed. Now to test it experimentally. That means another trip to Neptune!"

He was already figuring with his pencil on a pad, while Kuwamoto talked on:

"A viewing apparatus for seeing this Neptunian gas-life should be a simple thing to construct. And we shall want an apparatus for storage-recording of visual images. We can take motion-pictures at the rate of one a minute, and then project them at the normal speed of sixteen per second.

"A little experimental work right here in the laboratory will enable us to determine just which type of electro-magnetic vibrations are reflected from the surface of a mass of gas. Too short a wave will go through, because it gets between the molecules; whereas too long a wave will penetrate molecules and all. When we find approximately the right length, we can get together our photo-electric receiving bulbs, and take them along to make the final adjustments on the spot.

"An ordinary television screen will do for the viewing end. You see? We find the wave-length reflected from gas-surfaces, devise a photo-electric cell that is sensitive to it, and project the images from the photo-electric cell on an ordinary television screen."

That night, Corrigan tossed restlessly in his sleep.

"Gas-cells. . . . Of course!" his wife heard him mutter.

THE preliminary work was more tedious than the enthusiasm of the first moment had allowed for. It was all straightforward stuff, but the mathematics was complicated, and the experimental details were numerous. Thus, it was a good two years after its return from the first voyage that the *Neptunian* was taken out of its hangar and "tuned up." The second successful voyage to Venus in the old *Pioneer* and the two disastrous expeditions to Mars, which took place in the interval, are too well known to require mention here.

This time, the *Neptunian* contained three voyagers, for Dalton would not be left behind, and Kuwamoto had to go. The vessel could have carried a dozen people, but the applicants who were most anxious to accompany the expedition were the least desirable from the scientific standpoint. Corrigan decided that news reporters and sensation-seekers would have to wait until space-travel was commercialised, and the space that would have served for more passengers was given over to a radio and television apparatus for more perfect communication between the vessel and the Earth. They left with as little publicity as possible.

The only matter of interest from the fifty-day voyage are Kuwamoto's notes on the passage of time. He remarks that the journey did not seem that long. There being little or nothing to stimulate them, much of the time they rested passively, and may even have fallen into a sort of unconscious state produced by the lack of external stimuli. Kuwamoto considers that the only things which saved the entire period from seeming a complete blank in retrospect were his period of space-sickness and the regular calls of the warning-clocks by which they made their observations of position. This suggests that space voyages ought to prove valuable as a cure for nervous exhaustion.

Corrigan and Dalton felt strange emotions when they saw again the same sterile mountain-peaks and bottomless abysses. They cruised about for a few hours before landing, in order that Kuwamoto could observe the general features of Neptune. Then they located Elzar's home on the equator, selected a resting-spot, and landed the machine.

Immediately, all three went to work. Dalton started to take photographs, with large lenses, sensitive plates and long exposures. Kuwamoto set about erecting the viewing apparatus; he was feverishly busy, with an expression of wonder on his round, wide-eyed face. Corrigan began sending radio messages back to the Earth, reporting their arrival.

In a comparatively few hours, Kuwamoto's adjustments were finished. The two machines, one for direct viewing and the other for taking the storage-pictures, were placed with their huge lenses against the transparent panel in the wall of the

ship. From within their warm vessel, the space-travellers gazed upon the stern and forbidding landscape without. Directly centred in the observation frame was the gently-sloping, plateau-like area that was midway between a rugged mountain with a cloud-wreathed summit and the vast chasm that Elzar called the sea.

Bare, jagged rocks. Ice, dry and solid as stone. Flurries of carbon-dioxide and hydrogen snow. All these were printed indelibly on their minds as they sat before the infra-red viewing apparatus, the two older men calm and silent, the younger man half-hopeful, half-fearful, and waited for the tuning of the machine. Then, abruptly, Kuwamoto switched on the amplifying tubes.

Corrigan remarked, afterwards, that his first impression was of looking into a kaleidoscope. Dalton's impression, again, was of looking at an empty room and suddenly seeing it richly furnished. The brilliant colouring of the scene took their breaths away. For the gaunt mountain was covered with great billows of luxurious vegetation, and the plain was a wealth of flowers, trees and grass, all of huge proportions. The most beautiful sight of all were the opalescent bodies, of various shapes and sizes, that were scattered about the landscape at different heights above the ground, their colours shimmering and flashing through the whole chromatic scale.

But it was only the scintillation of these flashing hues that gave any animation to the scene, for everything was motionless: not a movement, not a stir, anywhere. The immobility of the iridescent, variformed objects was disappointing. It was like a brilliantly coloured stereoscopic picture.

CHAPTER IV

THE AMAZING RESCUE

THE three men looked at each other with emotions that cannot be described. A few moments of breathless silence, and then—

"Medusæ!" Dalton exclaimed. "Jelly-fish, a thousand times magnified!"

"And everything frozen solid," Kuwamoto observed.

They moved their vessel here and there, to get new views, watching the scenery on the screen as the infra-red machine re-

vealed it to their gaze. With intense interest they viewed the multicoloured festoons that adorned the landscape; huge, umbrella-shaped bodies that clung to the hill-sides. Exclamations of sheer delight came from them time after time, as some amazingly lovely object was brought within their range of vision.

"These medusoid forms must be the people—the intelligent beings," Corrigan decided.

The vast chasm was now a sea, a greenish blue in colour. Down in its depths could be seen vast, gloomy shapes; and on the surface, here and there, an enormous, slimy bulk, like a gigantic paramcium—obviously, the ravenous beasts that Elzar feared so much. The three observers were hushed for a moment, as they considered the contrast between the repulsive bulks of these beasts and the brilliant, delicate tracery of the intelligent inhabitants.

Eventually, they brought their vessel back to their original landing-place, after hunting about a few minutes to find the exact location.

"Here we are," Corrigan said. "It's just the same as it was an hour ago."

"Not quite the same," Dalton replied. "Look, some of those things have moved. Kuwamoto is right."

It was true. There had been a slight change of position throughout the entire group of huge globular objects.

"That must be Elzar!" Corrigan pointed out a brilliant umbrella-shaped body, of purple hue, floating near a resplendent structure close to the cliff's edge.

Kuwamoto nodded. He was busy adjusting the picture-taking machine. He had it trained on Elzar and his dwelling.

"One picture a minute," he remarked. "In about six weeks we shall be able to see some action on this film. In the meantime, why don't you speak to them?"

Immediately, Corrigan coded:

"We are here. Look for us on the plateau near your dwelling."

If waiting for Neptunian messages on the Earth was a wearisome business, the patience required of the three men confined in their space-ship, while waiting for a reply to that message, was even more enormous. Those six weeks were the longest any of the three had ever spent. When the seemingly interminable period

had passed, every possible aspect of the Neptunian scene had been studied, and every animal and plant form photographed.

But finally they threaded their steel tape into the dictaphone and listened to Elzar's voice; and through the vacuum-tubes and condensers, from that glittering purple object which had authored them, came the words:

"Welcome, my friends! I am overjoyed at your arrival. I see your vessel, now, though you must have waited long and patiently to enable us to see you. Before that, your movements were so rapid that we could not possibly have seen you. We realise that yours is the most difficult part of this communication problem. From your message, I judge that you have recognised my dwelling. Me you will distinguish because I am larger than any of the others in this group. My child resembles me in miniature, and is—wait——!"

The abruptness with which the message was cut off brought the men to their feet in alarm. All eyes turned frantically to the infra-red view-screen, only to behold the same peaceful scene that it had always presented.

"Let us run the film through and see what is the matter," Kuwamoto suggested.

WHILE Kuwamoto developed the film that had taken six weeks to prepare, Corrigan radioed back to Earth, asking the television stations to make ready to receive it. Soon Kuwamoto slipped his reel of film into the projector, and for the first time they saw the frozen scene in motion. The giant trees swayed; the waves of the sea tossed, and a huge bulk showed itself; while multicoloured Neptunians glided over the ground or floated through the atmosphere, bent on tasks and purposes of their own.

The men in the space-ship gazed at Elzar in silent admiration, aware of his dominance over the rest of the Neptunians. He was a truly remarkable organism. If he had been beautiful in immobility, he was a thousand times more lovely now. He resembled nothing so much as a brilliant, multicoloured chandelier of gigantic proportions, scintillating with each pulsation of his delicately-constructed body. Like fairy gossamer were his tissues, and

yet the vastness of his being gave an impression of sturdiness and power. His prevailing hue was purple, though he contained all the colours of the spectrum, harmoniously interwoven.

"He is the only one whose dominant colour is purple," Corrigan remarked.

"No," said Kuwamoto. "Look! There is a smaller one with much the same colouring."

"That must be Elzar's offspring, then," Corrigan replied.

As they watched, Elzar rose above the other Neptunians about him, and the Earth-men realised that he was talking to them, making the speech to which they had listened half an hour before. He remained quite motionless, and the observers, more interested in the moving objects, allowed their eyes to wander from him to his diminutive counterpart, who was moving in the direction of the cliff edge that overhung the sea.

"Good heavens! Look at that!"

Kuwamoto's exclamation was unnecessary, for they all saw it simultaneously. Out of the depths a black, slimy form had risen, the sea splashing off its glistening sides. It seemed to spy the Neptunian child, for it turned towards the little purple bell. Then the loathsome entity reached out great pseudopods, slimy, flowing, shapeless projections, preparing to wrap them all around the small, bright body.

Swiftly it moved towards its victim, and seemed about to seize the little Neptunian, when Elzar suddenly woke to the danger, whirled about, and hastened to rescue his child from the monster's evil clutch. Then—the picture was ended, and the men gazed stupidly at the blank screen before them.

"Phew!" breathed Kuwamoto. "Just at the crucial moment the film cuts out, like a cheap serial! I suppose we can guess what happened next, and that Elzar's child has been devoured by the filthy beast."

"No; not at all!" cried Corrigan, excitedly. "Remember, it is all going on very slowly. Let's find out for sure!"

He rushed to the observation frame and looked out, to see nothing but bare, black rocks and frozen air. In his excitement, he had forgotten the viewing machine which rendered visible the tenuous gaseous matter on this cold planet.

THROUGH the infra-red visual-transformer, the scene which had become so familiar during the past six weeks lay before them. Now it was more comprehensible, since they could regard it in the light of what they had seen on the moving picture.

"Thank God! It isn't too late. . . . But what can we do? By the time——"

Kuwamoto interrupted Corrigan.

"It is true that the distance between the monster's pseudopods and the little Neptunian is decreasing, but the rate of progression is terribly slow. Let us think. We can act so much faster."

"But those things are so big. Even Elzar's offspring is far too big for us; we can't handle him. If only we could destroy the monster somehow——"

In helpless despair, they stood gazing upon the scene. The dreadful, ravenous monster seemed such a short distance away from the beautiful little creature. . . .

"Blow him away!" Kuwamoto shouted. "The nitrogen tanks!"

The others comprehended instantly. Corrigan manœuvred the space-vessel, with the aid of the infra-red screen, gradually working it into a position between the sea-beast and the medusoid child. On the viewing-screen, the two Neptunian creatures towered high above the sides of the space-ship, which must have looked like a toy between them.

Dalton and Kuwamoto placed a cylinder of nitrogen in the air-valve compartment that was used for refuse disposal, retaining control of its stop-cock by an electrical connection, and aiming its discharge-tube directly at the monster. The outer door was opened, sending a puff of air into the beast's hideous face, and causing it to sway visibly on the viewing-screen, among the frigid, motionless scenery. Almost simultaneously, Kuwamoto turned on the compressed nitrogen.

On the screen, the stream of gas looked like a solid, black beam shooting out of the space-vessel. It expanded swiftly into a dense black cloud that struck the monster and, literally, blew it to nothingness. To the watching Neptunians, the beast's sudden vanishment must have seemed very mysterious indeed. The pressure of the nitrogen in the cylinder, to them, would have been almost inconceivable;

none but their trained physicists could have comprehended it.

For a long time they waited and watched, anxious to see if the vortex of gases had done any harm to the Neptunian child; though the bulk of the space-vessel had protected it from the greatest pressure. During that time, no great change was visible, and the men, exhausted by their strenuous exertions of the last few hours, slept. On waking, they were gratified to see, through the visual transformer, that Elzar had reached his little one's side, and that both of them seemed safe.

The men made a quick decision to return to the Earth. They had gathered enough data for one trip, and the difference in the perception of the passage of time between themselves and the Neptunians made it unprofitable for them to wait for more. The most trivial act of a Neptunian required too great a part of an Earth-man's life-time to observe. Having begun their return journey, they expected that they would soon hear from Elzar, and on the third day they began to get the purport of his message, which occupied the entire flight homeward.

"My friends from Earth, I thank you for saving my child. How you destroyed the sea-animal, I cannot understand. It vanished instantly, and when I looked towards the place you had recently occupied, you were no longer there. Often have I warned my little one of the awful monsters from the sea, but I believe it is characteristic of the young of all worlds that they learn by experience rather than by admonition.

"You averted a tragedy that would have wrecked the life of Elzar. How I can show you the gratitude I feel, I do not know. Perhaps the time will come; but I must act quickly, for any delay on my part might cover the remaining years of your lives. My dream is interplanetary television, to which I have devoted my life. Never shall I be content until I see the cities and men of your world. Again I thank you, and may you live to realise the gratitude of Elzar of Neptune."

Kuwamoto gave a satisfied smile.

"It wouldn't take much," he said, "to go back there some day, and clean up that nest of ugly beasts."

READERS' REACTIONS

Readers are invited to write to the Editor stating their opinions, frankly and concisely, on the merits of each issue of TALES OF WONDER, or upon any subject arising out of its contents. Address your letters to TALES OF WONDER, The Windmill Press, Kingswood, Surrey. If a personal reply is desired, a stamped, addressed envelope should be enclosed.

"ON THE RIGHT TRACK"

SINCE the date of your first issue, I have waded through some rather appalling gush that has found its way into the pages of your publication. Sometimes there has been a vague promise that you might eventually print something meritorious. That promise is now very near to realisation.

I have delayed writing until now, as any comment I might have passed previously would not have been encouraging. But at this critical period, when the possibility of continued publication is far from bright, I would like to assure you that you are at last on the right track, and every effort you make to keep running is more than justified. You are miles ahead of your earlier standards.

You have many factors in your favour. The fact that your issues are three months apart gives you a time advantage that is not enjoyed by your contemporaries. You have a formidable array of writers, and you have shown no reluctance to print really transcendental matter.

As a reader of this class of magazine for nearly two decades, I have witnessed the rise and fall of quite a number of publications similar to yours. I have witnessed, too, the education and evolution of an entirely new taste in literature. This taste is still young and changeable; and there are still sufficiently few magazines in the field for each one to be a considerable factor in the nurturing of it.

It is easy to be wise after the event; but there have been so many natural deaths of magazines that there is no excuse for failing to anticipate the troubles that have beset others. One pitfall has been the conscientious efforts of editors to please the majority of their readers; and the fact

that correspondence from readers is very far from representative of the opinions of the majority is painfully revealed in the decline of magazines whose editors have based their policies on letters received.

The needs, which when satisfied promoted sales and when denied brought disaster, seemed to me to be for stories embracing new, widely varied, but logical ideas; for easily-digested science; for thought-provoking articles based on up-to-the-minute researches; for information departments; for a certain amount of intimacy with the editor. However, it has proved a mistake to remove the writers from their aloof pedestals and bring them within the too close scrutiny of their readers. Possibly, it's a case of familiarity and contempt.

Don't be afraid to publish unknown writers—frequently, a writer's best work is the first that was published. Established writers often imagine they have found the ideal theme; but ideal themes are ephemeral, extremely so in this field. Don't forget that the majority of your readers have long been fed on a diet of pretty good science fiction. They don't want you to underestimate their appreciation of advanced ideas in your fiction and articles.

Possibly you may find this letter helpful. Let me add that I wish to do everything in my power to help TALES OF WONDER.—R. GOULD, c/o Resident Engineer, R.A.F. Station, Somewhere-in-England.

(Your estimation of our future progress, in spite of your silent criticisms thus far, certainly helps to encourage us; though we wish you had written us before, even if only to express disapproval of the

"appalling gush." However, we shall do our utmost to avoid the many pitfalls that still lie in our path, and to fulfil the needs of all our readers. We have, incidentally, introduced several new writers into our pages.—EDITOR.)

PERMANENT ANÆMIA?

THREE hearty cheers! I was very glad to see that you were able to out bring your thirteenth issue, and even more glad to hear that you had "turned the corner." I have never written to you before, although I have been reading science fiction for some time; but when I saw No. 13 on the bookstall, after giving up all hope of its appearance, I felt I owed it to you to write and congratulate you on this fine effort.

As for the contents of the issue, they were as good as I've read for a long time. The story I most enjoyed reading was "The Law of the Universe," by Coutts Brisbane. But is gravity on Venus really only two-thirds that of Earth? I thought it was practically the same. Another point: Verrian says that the proportions of atmospheric gases on Venus *might* differ considerably from those of the terrestrial atmosphere. But the proportions of Venusan air constituents are already known, and the predominant gas is carbon dioxide.

"Wanderers of Time" comes second; a good Beynon yarn. The questions at the end give one plenty to think about. A sequel answering them would be a good idea, methinks. I was dying to find out what drove the "red stalkers." My own idea was that the descendants of humanity were responsible.

Clark Ashton Smith was at his best in "Dimension of Chance." How he loves writing that type of tale! This and "City of Singing Flame" are two of his winners. "The Book of Worlds," by Miles J. Breuer, M.D., was quite good, and "The Power Supreme" was well-written, but Wallis seems short of new ideas these days.

As regards *Search for Ideas*, I vote for it 100 per cent. It is, for me, always one of the most interesting parts of the magazine. Keep it up! Turner's illustrations are improving; the only pity is that they

are not bigger—they ought to fill half a page, at least. But perhaps that's a bit too much to ask, as I see that you are making use of every square inch of space.

There is one thing, however, that leaves a bad taste in the mouth—the cover. If we are to have a permanent cover, let it be a good one. All those pink and purple planets twirling about at the top make it look like "Consult the Stars with Auntie Flo." Coupled with the words "Super-Science" and a dinky space-ship spurting into the sky on *white* rocket-jets, the effect is—well!

There is no light and shade in the design. The whole effect is pale, weak and amateurish, and little likely to attract prospective buyers of the magazine. I know that, when you open it, the stories generally make up for a bad cover; but how many people never reach the inside, being put off by an anæmic exterior?

Please do not think I am just picking holes in Nicolson's work. I want to see *TALES OF WONDER* increase its circulation, and don't like anything which stands in the way of this. Hoping to write to you again after the next issue, which will have to be pretty good to beat this one.—ROBERT J. SILBURN, The Dingle, Rhyd-y-felin, Aberystwyth.

(Thank you for writing us, and for your comments on our new cover, which seems to have created quite a stir among our readers. Though it has brought forth some criticism, there are many who have approved it. We shall look forward to hearing from you again.—EDITOR.)

REACHING FOR THE STARS

I HAVE read every one of your issues with the exception of No. 11, and think I am entitled to write to you, now, and criticise. I first read science fiction in an American magazine, and it took my fancy at once, mainly because of the space-travel stories: I am very keen on anything appertaining to astronomy.

I have seen several letters asking you to keep your stories on solid Earth, and a good few others saying that, if you must have space-travel, don't let it go any farther than a trip to Mars or Venus. I was sorry to see that, although you have

not taken the advice of the "Earth-bound" readers, you have not yet passed the orbit of Mars. Interstellar travel is not so impossible an idea as many are apt to think.

In America, Dr. E. E. Smith has obliged by writing "The Skylark of Space," and other stories, in which there is a magnificent idea for interstellar travel, which is accomplished without taking years and without breaking Einstein's laws. By super-scientific means, the space-ship is made inertialess in respect to surrounding bodies, and thus speeds far in excess of that of light itself are reached. Would it not be possible to reprint some of these stories? I am sure many British readers have not read them, and they are gems of science fiction.

By the way, why must so many of your present reprints be of stories by Stanton A. Coblentz? He is one of the best American authors; but one can get bored with even the best of things if one has too much of them. John Beynon's "The Venus Adventure" was one of the best stories you have published, and a sequel would be welcome. I am sure that Hal Newton and the other survivors could have quite an interesting time on Mars, if Mr. Beynon set to work in earnest; so I am waiting to see "The Martian Adventure" in some future issue of TALES OF WONDER.

Please try to avoid the overworked theme of Earth being menaced: nearly forty per cent of your stories have been of this type. The inside illustrations are far too scrappy. Let them take a half-page or more, with lettering underneath saying which scene they depict. Is it impossible to get hold of an American artist, such as Paul or Wesso, to do your illustrations for you? But, despite all my criticisms, I still like your magazine. Yours until it becomes a monthly.—R. JOHNSON, "Thislido," Rugby Road, Cublington, near Leamington Spa.

(Though we have not yet explored the whole of the Solar System in our space-travel stories, our British author, Geo. C. Wallis, has taken us "Across the Abyss" to the distant universe, Andromeda. However, we shall try to cover more territory in future; but we have already explained that we cannot reprint

the stories you ask for except as serials, and they are hardly practicable at the moment.—EDITOR.

"STUPENDOUS!"

WHO said 13 was an unlucky number? The latest issue of your splendid magazine was stupendous! And all the more credit is due when present difficulties of production are taken into consideration. Yes; I think No. 13 leads the field—and I've read 'em all. I only hope your issues continue with unbroken sequence, and that No. 14 will be even better, if that is possible.

There is, however, still a little room for improvement in your cover and illustrations. In your new cover design, the space-ship of to-morrow and the aeroplane of to-day seem oddly misplaced when depicted together. I would also like to draw Mr. Nicolson's attention to the fact that even the planes of to-day mostly have retractable undercarriages. . . . The interior illustrations show an improvement over previous issues, but they still leave something to be desired.

Why not scrap your *Search for Ideas*, which is becoming rather exhausted now, and introduce an artistic feature, inviting ideas suitable for illustration? I am sure there are many artistically-inclined readers who would welcome the opportunity of producing scientific sketches, the best of which you could adapt for presentation in the magazine.

Of a group of really excellent tales in the issue, I found Coutts Brisbane's "Law of the Universe" most acceptable. Such a pity it wasn't longer—I enjoyed every minute of it. There was method and colour in this very fine effort. Beynon's "Wanderers of Time" came next in my estimation: a very well-written story on a difficult theme.

"The Power Supreme" came third. This could have been made into a really excellent story. Its tame climax, however, gave me rather a rude shock, as my imagination had worked up in anticipation of a more thrilling ending. Still, it was very good. Finally, "Dimension of Chance" and "The Book of Worlds" were two stories, either of which might have found a premier place in an earlier

issue. Wishing you the very best of luck in your struggle for continuance.—DENIS G. SLOAN, Liverpool Hotel, Warrenpoint, Co. Down.

(We are glad you found our last issue so enjoyable, and trust that this one may come up to your expectations. Thank you for your good wishes.—EDITOR.)

TOO FULL FOR WORDS

BEING a science-fictionist, my fund of adjectives should be practically inexhaustible; but I find it difficult to put into words the emotions that were induced in me by the sight of TALES OF WONDER No. 13. I was more than just surprised or pleased: I was elated. It marks, as you say, the turning-point. Carry on down the straight, now, and let there be no finishing-post!

The cover, although spoilt by the rectangle of printing, is one of the best you have yet produced, portraying as it does so many phases of science fiction. Though I do not like the planes at all—far too *gauche*. The stories were just usual, except "Wanderers of Time," which stood head-and-shoulders above the rest.

I did not see any space tales among them, either. Why do you neglect this, the biggest field of science fiction, and print stories that are practically the same in issue after issue? Surely you do not believe that British readers would find inter-stellar and inter-galactic plots too far advanced? Of course, I mean realistic, logical stories of this type.

To be fair to you, I realise that there are great differences in abstract thinking, which at first might not be clear to readers unused to such tales. But to attract new readers, variety must be introduced. "Wanderers of Time" is just such a story; and one that should be continued in an early issue. Until then, speculation upon the identity of the red stalkers must bring forth many startling ideas. Are they just red ants? Or some form of two-legged insect life which will arise on the Earth millions of years hence? It is just possible that bacteria could manipulate the, to them, colossal egg-shaped machines. . . . Yes; a continu-

ation of this story is definitely called for. "Dimension of Chance," a typical Clark Ashton Smith effusion, was based on quite a good idea, but was not nearly as laudable as the same author's "City of Singing Flame." "Law of the Universe" contained a good point for the guidance of future space-travellers; namely, the pack of cards that Verrian produced when encountering the Venusians. This was a much more efficient means of communication than the scrap of paper and stub of pencil which is invariably used.

Of "The Power Supreme," all that can be said is that it was a typical plot, typically worked out: good padding. "The Book of Worlds" explained one conception of the Fourth Dimension very neatly, but the story was very weak. I find it difficult to imagine a scientist, however much of a recluse, going mad through the effects of witnessing the worst side of man exposed in all its hideousness. If he had continued to watch the future development of *homo sapiens*, I feel sure he would have found a slight improvement in his moral state. War must one day cease altogether.—K. BULMER, 195 High Street, Lewisham.

(We intend to publish the type of stories you ask you, so long as they are logical and realistic; though it is not too easy to find such tales which meet with those requirements. We shall be glad to get your Reactions, and those of other readers, to the space-travel story, "Child of Neptune," in this issue.—EDITOR.)

PLANETARY CONFECTIONERY

YOUR new standard cover is so brightly coloured, with such hard outlines, that it is more characteristic of Turner than of "Nick." Don't you feel that it expresses the variety and superficial charm of fantasy, rather than the sense of awe that is an equally vital ingredient? Those jolly little planets, for instance, in that cheerful green sky, are more like sweets scattered on a patch of baize than the softly-gleaming jewels on black velvet that I should prefer to see. But this is purely a matter of individual taste, and I cannot deny that the cover is attractive and neatly executed.

First among the stories I would put Clark Ashton Smith's "Dimension of Chance," which impressed me powerfully; though I am inclined to wonder why the prevailing chaos did not affect the bodies and perceptions of the two Earthlings as drastically as it did the fuel in their rocket-plane. There is an obvious affinity between this story and "City of Singing Flame," but this is by far the more original and truly poetic in its drug-like flavour.

Next, because of story-interest, comes "Wanderers of Time," but this is disappointing Beynon. The machines, even if ant-inhabited, are clearly hang-overs from his Mars stories; the mechanism of time-travel creaks more than somewhat, and the Transatlantic characters, who are American in nothing but a few movie phrases, fail to ring true. But narrative power and suspense value remain. I'm waiting for the sequel, and a satisfying revelation about those red machines!

"Law of the Universe" has atmosphere and a tragically "different" ending: I was going to put it third, but I bracket it at second place with Beynon's yarn. "The Power Supreme," a hackneyed mad-inventor-tries-to-destroy-the-world tale, is redeemed by some attempt at characterisation, but has one glaring flaw. If the hero could manage to alter Strogoff's equation, then he could have removed it altogether and used it to convince learned sceptics like Phillmore. In that case, of course, there would have been precious little story. . . .

"The Book of Worlds" is equally hackneyed, and burdened with an intolerable amount of moralising; this is not to say, though, that for a veteran fan it may not have its piquancy, as a ripe old Gorgonzola delights the true cheese-lover. One thing I would ask: why did the Professor's machine invariably pick on scenes of bloodshed and disaster out of the infinitude of possible spectacles?

May your flag still be flying when the guns are silent once more. In the meantime on to No. 14!—OSMOND ROBB, 107 Montgomery Street, Edinburgh.

(Mr. Robb's unfailing regularity in sending his Reactions is a source of gratification to us—and, we believe, to those many readers who value these pages as

much as we do. Even when he has cause to criticise, he has a way of putting things that makes it a pleasant experience to receive his letters. May they never cease!
EDITOR.)

POTTED OPINIONS

WHEN we came over here, one of the things I looked forward to was catching up with British science fiction," writes Gunner W. R. GIBSON, of a Canadian regiment now in England. "I think that, having got this far, TALES OF WONDER should carry on for the duration. He prefers "heavy science" and fantastic tales logically developed, considering "City of Singing Flame" the best he has read. "Eric Frank Russell has the highest percentage of good ones, with Geo. C. Wallis as runner-up. But some of your authors seem to lack courage, being content with slight and even trivial conceptions; though No. 13 did not suffer much that way. Perhaps they are growing up."

E. BIDDLE, 1513 High Road, Whetstone, describes how his 13-year-old son "spotted No. 13 and brought it home. Like myself, he is an ardent reader of science fiction. Congratulations on carrying on in these difficult times, and producing such excellent material. I honestly think that TALES OF WONDER is definitely the best in the field, and provides a refreshing change in its type of stories." Our new cover he considers "distinctive and appropriate"; and he asks for "some of A. Hyatt Verrill's fine stories," one of which he will find in this issue.

IAN K. SHARP, St. Helier, Acres Road, Scone, Perth, is "very disappointed" with the new cover—"but, at least, it will save the artists a few brickbats." Appraising "Wanderers of Time," he declares: "Beynon's characters always seem to live, and he has the happy knack of making the most far-fetched ideas seem credible. The plot was, to me, new and thought-provoking, and I think a sequel is indicated." He also likes Clark Ashton Smith's "so-called ornate style."

TERENCE OVERTON, 107 Thomas Street, Abertridwr, Cardiff, sends us several suggestions for reprints, and asks for longer stories in the form of three-part

serials, more tales about insects, more of Clark Ashton Smith's work, and more advanced ideas. He also suggests a "short-short story" contest for readers, to encourage the writing of science fiction. "It is quite easy to compose a science fiction story of 400-500 words. I have written several of them myself, for my own amusement."

T. HUGHES, 64 Hall Road, Handsworth, Birmingham, was "not greatly impressed by the efforts submitted in the *Search for Ideas*," in our last issue. "They contained nothing startling or new, and the science in them was hopeless." He finds "Readers' Reactions" one of the most interesting features of the magazine, and asks for a section to be devoted to readers' scientific discussions (which, as announced elsewhere, we shall inaugurate in our next issue). He adds a request for stories by Charles Cloukey, Don. A. Stuart and John W. Campbell, Jnr., and hopes to see "a bigger, better and more frequent *TALES OF WONDER* when our little international squabbles have been satisfactorily settled."

EDWIN MACDONALD, 25 Dochfour Drive, Inverness, confesses: "I have studied your new cover, and wept over it, but I won't blame you." Commenting on the stories in the issue, of which he found "Wanderers of Time" most enjoyable, he also declares: "I shuddered at the sight of Coutts Brisbane's name on the contents page, and my fears were confirmed. 'The Law of the Universe' might have been all right—if well-written—in an early issue of *TALES OF WONDER*, but in No. 13...! On the whole, however, the issue was quite good. It's time we were getting something from Eric Frank Russell, John Russell Fearn, Charles F. Hall and William F. Temple again."

J. A. BANCROFT WILSON, "Longlands," Hennock, near Newton Abbot, S. Devon, wants more Stanton A. Coblentz stories of the standard of "The Planet of Youth," and more of John Beynon's of "The Venus Adventure" and "Sleepers of Mars" type. He asks if any reader can help him discover the title of a book—not by H. G. Wells—about an attack by super-intelligent ants on England, published some thirty years ago.

TALES OF WONDER

Readers' Reactions

To the Editor, *TALES OF WONDER*, The Windmill Press,
Kingswood, Surrey.

My reaction to the contents of the latest issue of *TALES OF WONDER*, in the order in which I preferred the stories (or other features) may be summarised as follows:

- | | |
|----------|----------|
| 1. _____ | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

Remarks: _____

Name: _____

Address: _____

"WANDERERS OF TIME" TOPS POPULARITY POLL

According to Readers' Reactions, the order of popularity of the stories and features in our last issue was as follows:—

1. Wanderers of Time (John Beynon).
2. Dimension of Chance (Clark Ashton Smith).
3. Law of the Universe (Coutts Brisbane).
4. The Book of Worlds (Miles J. Breuer, M.D.).
5. The Power Supreme (Geo. C. Wallis).
6. The Future of Man—*Search for Ideas*.
7. Readers' Reactions.

