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### In Our March Issue:

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#### Our Cover

This month illustrates a scene in the story entitled, "Lakh-Dal, Destroyer of Souls," by W. F. Hammond, in which Lakh-Dal flashes his concentrated rays of isolated moonbeams, or "Lunacy Rays," straight in the face of the unfortunate Chinese victim.

In five minutes, the man became a hopeless lunatic, whose vacuous and grotesque mouthings were fearful to behold.

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"The Master of the World," by Jules Verne, copyright, 1911, by Vincent Parke & Co. (Parke, Austin and Lipscomb Co.)

#### In Our Next Issue:

THE STORY OF THE DAYS TO COME, by H. G. Wells. We are always interested when we read a story of the far future, and of the wonders that might be in store for our descendants. But when such a story is written by H. G. Wells, it becomes all the more realistic and the more absorbing. What will the world look like several hundred years hence? Read this excellent story in the next issue.

THE MIRACLE OF THE LILY, by Clare Winger Harris. Insects are and were man's greatest enemy. What if they should gain ascendancy over human beings once more? Such a thing is not nearly as impossible as it appears at first glance. At any rate, the author, who is also the third prize winner of our \$500.00 contest, weaves a fascinating story around this idea.

THE RETURN OF THE MARTIANS, by Cecil B. White. Being an astronomer, our author is well informed on the subject and in this sequel to "THE RETREAT OF MARS," he gives us a most unusual, as well as powerfully written, story, which is not too technical to hold the interest of any reader, no matter what his inclinations might be.

BARON MUENCHHAUSEN'S SCIENTIFIC ADVENTURES, by Hugo Gernsback. In the next instalments, we find our resourceful Baron, in his quest for further first-hand information about the universe, moving through interstellar space again. This time he lands on Mars.

THE ANCIENT HORROR, by Hal Grant. Pre-historic monsters are no novelty in literature, but here is one so totally different and the story is so well written that by the time you are through reading the story, you will not be at all sure that it is not entirely truth that you have read. This is an excellent tale that is sure to give you a half-hour's interesting reading. hour's interesting reading.

And Others.

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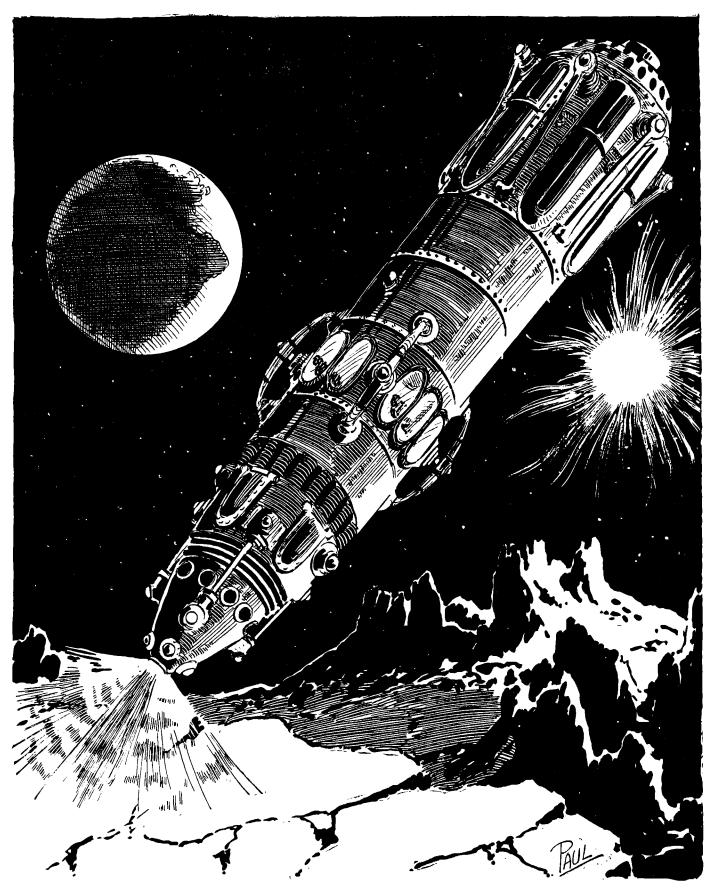
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# SUB-SATELLITE

## by Charles Cloukey



When they were within a couple of thousands of miles of the moon, he checked their speed by exploding a charge at the end of the rocket nearest the moon. . . . The rocket was only a few hundred feet above the broad summit of the lunar peak, so Javis let it fall.



LOOKED up from my book. My friend and roommate, C. Jerry Clankey, in his big easy-chair across the room, was gazing intently at the ceiling and talking out loud to himself. This was a peculiar

and often annoying habit of his, but this time I could not help being interested in what he was saying.

"It behaved precisely according to the laws of celestial mechanics," he was saying, "exactly as a satellite. Perhaps one could call it a sub-satellite. And then there was the matter of the Doctor's will. The diamonds!

"It was marvelous," he continued to the ceiling, "one chance out of thousands. Duseau swore he would have his revenge. I wonder if he was satisfied. And Jacqueline-

Jerry stopped suddenly as he noticed that I was

looking at him curiously. He became embarrassed. "Pardon me," I said, "but if you don't mind, I'd like to know what in the world you are talking about. I'm not particularly dense, but I entirely fail to see any connection between celestial mechanics, satellites, diamonds, and revenge. And who is Jacqueline? Would you mind—"

He interrupted me, smiling slightly. "I suppose," he said, "that even in this enlightened era of the twenty-first century, there are portions of Tibet where news travels rather slowly. As you, Kornfield, have only returned to New York today, you are perhaps still ignorant of the fact that Dr. D. Francis Javis actually succeeded with his plans for reaching the moon."

"I heard a man in Paris mention it yesterday," I informed him, "but I don't know the details. After our plane was forced down in the Dangla Mountains, and Basehore had accidentally broken the only radio with the expedition, we were cut off from civilization for four and a half months. Tell me about the moon trip. What did he find there? And what has that to do with the Doctor's will? And who is Jacqueline?"

"All right," said Jerry, leaning back comfortably in his chair, "I'll tell you. Even the newspapers didn't get it all, though I suppose the reporters thought they did. Listen, and I'll tell you the whole story":

As you know, Kornfield, (said C. Jerry Clankey), I was the chief radio engineer on Javis' staff. I designed the transmitter, and the receiver, too, that he took to the moon, and by means of which he was able to communicate with my installation at Albany. I also supervised the con-

struction of a simplified television outfit, which Javis discarded in the last hour before he left, in order to make room for an additional supply of concentrated

But I should start at the beginning. Perhaps you remember that Javis discovered, about ten years ago, how to produce artificial diamonds, of greater hardness, size, brilliance, and beauty than the genuine stone. After he had manufactured almost two billion dollars' worth, he destroyed his invention. Since then, many scientists have tried to rediscover his secret, but without success.

He sold about half of the diamonds to secure capi-

tal with which to make his moon trip, and deposited the rest in a specially constructed vault here in New York. He also made a will, in which, for some reason of his own, he left his entire fortune to his elder son, Donald, cutting off the younger, Jack, without a cent. Then he started to work on his project of reaching the moon.

I've often wondered why he wanted to reach the moon. One would hardly think that the love of knowledge would be so great that a man would be willing to work ten years, spend a billion dollars, and finally risk his life in an attempt to reach the moon, merely to satisfy that love. But Javis was a queer man. The money meant nothing to him. Neither, apparently, did the risk. He prepared for his journey and he went, regardless of consequences.

You know, of course, the type of vehicle he chose -a projectile-shaped rocket, of the type proposed by Dr. Goddard over a century ago, propelled, once it was out of the earth's atmosphere, by explosive gases. But I won't go into that. You understand the principle. While in the atmosphere, it was flown as an ordinary plane, by propellers.

HE unique feature of the Doctor's rocket, how-**1** ever, was the ingenious construction of the wings, which allowed them to be withdrawn into the body of the rocket, after the atmosphere had been left behind.

This feature had been designed by R. Henri Duseau, the French scientist and engineer, who was one of Javis' most able assistants. Just why they quarreled will probably never be known. They were both hot-tempered. So when Javis paid Duseau off, and discharged him, the impulsive Frenchman swore revenge.

It had been generally understood, though it appears that there was no written contract or agreement, that Duseau was to be the one to accompany Javis in his attempt to reach the moon, because Duseau had once been an air mail pilot in France, and could attend to the navigation of the craft while it was in the atmosphere. The rocket was, in spite of its great size, only designed to carry two passengers, because the rest of the available space had to be utilized to carry food, fuel, the radio equipment

> I had designed, the Doctor's scientific instruments, and various other neces-

sary objects.

To be discharged after almost nine years of work was a great disappointment to Duseau. He had a natural craving for adventure, and also, I believe, for fame. He wanted

to achieve great celebrity by his part in the moon trip. He was exceedingly temperamental, and perhaps this characteristic, together with his persuasion that he had been treated unfairly by Javis, was responsible for the attitude of jealous enmity he held for the Doctor after his discharge. Just how far he was destined to carry his bitter hate, the world was soon to learn.

To take Duseau's place, Javis hired Richard C. Brown, the famous stunt-flier and dare-devil, paying him in advance a flat sum of one million dollars. Men have risked their lives for less.

Dick Brown was a curious character. He was a

HERE is a novel type of interplanetary story, with some excellent science mixed throughout. Possibly the only practical space flyer that has come up for consideration so far, that is considered seriously by science, is the Goddard type of rocket flyer. This is based on sound scientific premises and sooner or later, one of these space flyers will come into being. The curious idea of the Sub-Satellite itself, is excellent, and you will enjoy it.

happy-go-lucky, devil-may-care kid, game as they make 'em, reckless and foolhardy, only about twenty years old, and had the reputation of bearing a

Brown made several test flights in the rocket. He was able to see on all sides by means of an ingenious arrangement of periscopes. As an airplane, the great craft functioned perfectly, having a maximum speed of about 350 miles per hour, and a ceiling of approximately 41.000 feet. How it would behave as a rocket remained to be seen.

After the trouble with Duseau, came the trouble with Donald, the Doctor's oldest son. I had always considered him more or less of a good-for-nothing vagabond. I don't know exactly what happened, but it seems that in an insane moment of drunken anger, he had drawn a revolver and fired, point-blank, at his father. Because he was drunk, he missed completely. The Doctor tried to hush up the affair, but in some way, news of the attempted parricide leaked out, and caused a lot of unpleasant publicity.

Javis told me, in a moment of confidence, that he intended to revise his will before he left, to give his entire fortune, including the diamonds, to his other son, Jack, who was a well-known banker and business man, in spite of his youth. Javis also intended to completely disinherit Donald, but he never changed the will. He went off to the moon without attending to the matter. He didn't have time, I suppose.

He and Brown left for the moon just ten days after his last experimental rocket had burst upon the moon, proving the existence of some, though very little, atmosphere on our satellite. This small rocket he sent to the moon contained a chemical compound which could not explode without oxygen. As it was observed by many astronomers to explode upon hitting the moon, it was obvious that our satellite possessed an atmosphere, however rare.

Javis had another purpose also in sending out these small rockets. By observing them, he could form an idea of the way the large one would act in space. When he had obtained all the data he desired, he made his preparations to depart.

FOR a week his whole establishment was in an uproar. The food, fuel, radio, and scientific instruments were put aboard, while Brown tuned up his motors to perfection. When I saw Javis dismantling and packing a light-weight Marvite machine gun, I ventured to make an inquiry.

"Surely," I said, "you don't expect to have any

use for that on the moon, do you?"

"I hope not," Javis replied, "but we know that there is air upon the moon, so it is highly probable that there is some form of life there. I'm taking this gun because it is the most powerful weapon in the world for its size, and we might meet some monsters." He smiled, and finished packing the shining, deadly little weapon. Yet it seemed to me that there was no necessity for such a powerful gun. But he was taking no chances. If there were monsters on the moon, he would be prepared.

The next day they left. I will never forget it. As dozens of cameras and televisors clicked and buzzed on every side, Javis and Brown entered the rocket. Brown was smiling. It was an adventure to him. If he realized what slim chances he had of ever returning to the earth again, he gave no indication of the fact. But the face of Javis was grave. It was more than a mere adventure to him. This

trip meant the realization of his life's ambition. The field was cleared. The massive air-tight door was closed. Suddenly the three enormous propellers burst into action. With the incomparable skill of the born airman, Brown took off. Quickly he took the great plane as high as the motors would carry it. To the observers on the ground, it was only a speck in the cloudless sky.

Then those who were watching it with binoculars saw a brilliant green flash appear at the tail of the rocket. It darted suddenly upward. It was necessary to develop a speed greater than seven miles a second in order to leave the earth, and it was apparent that Javis was gradually attaining this tremendous velocity.

Through the rarefied upper strata of the atmosphere shot the great rocket. It left the earth.

ERRY was silent for awhile. I waited as pa-I tiently as I could for him to resume his narrative. But when his silence grew prolonged, I ventured to speak.

"I think," I said, "that I can guess now what you meant by a sub-satellite. I gather that the rocket, obeying the laws of celestial mechanics was captured by the attraction of the moon, revolving around

it as a satellite, or sub-satellite, rather."
"Kornfield," said Jerry, "never jump at conclusions. I noticed that you were reading that remarkable story by Verne, 'A Trip to the Moon.' When you stop to consider that it was written almost two centuries ago, the amount of scientific prophecy and foresight in it is amazing. It's interesting to note how famous that story has become during the short time that has elapsed since Javis' great accomplishment. Before his tragic trip, the story was known to only a few learned men who had made a study of nineteenth century literature. But now it is famous, as an example of dreams coming true, of imagination becoming reality. Yesterday's impossibilities are today's facts. And tomorrow-what? But I am digressing.

"In that story, the author's imaginary projectile is deflected from its course by the moon's attraction. But this didn't happen to Javis. He could steer his rocket, you remember, by exploding his gases at any one of fifty different points on its exterior. He landed all right. When they were within a couple of thousand of miles of the moon, he checked their speed by exploding a charge at the end of the rocket nearest the moon. As it began to fall toward the surface of our satellite, he checked it again in the same manner.

"He had to repeat this process several times. Finally the rocket was only a few hundred feet above the broad summit of a lunar peak. So Javis let it fall. Owing to the elaborate shock-absorbing system, and the inferior force of lunar gravity, no dam-

age was done.
"After working nine years, and spending almost a billion dollars, Javis had succeeded in reaching the moon. He landed on the summit of an exceedingly

tall mountain near the Mare Tranquilitatis."
"But, then," I protested, "to what were you referring when you spoke about a sub-satellite? And

you haven't told me yet who Jacqueline is."

"Be patient, Bob, be patient," he admonished, "I have not yet concluded my narrative." He smiled quizzically. "All in good time, my lad," he said, "control your impatience and all many lad," control your impatience and all your questions will

be answered." Then he plunged once more into his story:

I HAVE, continued C. Jerry Clankey, gone ahead of my story. I've told you of the landing on the moon. But several very important events occurred before the rocket reached its destination.

The greatest danger, perhaps, that confronted the extra-terrestrial pioneers was the danger from meteors<sup>1</sup>. These meteors are by no means scarce. There are uncounted millions in this solar system alone. Nor are they all as small as you might assume. Many weigh dozens, and some weigh hundreds of tons. Nor are they slow. Most of them are hurtling many miles through space every second. Nor are they visible, until they enter the earth's great protecting blanket of atmosphere, where they become ignited by friction, and are usually entirely consumed before they reach the ground.

So you can see that to devise an apparatus that would enable Javis to avoid these unseen obstacles was no easy task, though, of course, Javis made his attempt in February, in which month the earth meets comparatively few meteors.

Gibson and I took two years to complete the marvelous apparatus. This work was mostly detail, as the principle is not new. Radio waves, like light waves, and sound waves, reflect upon striking various objects. When any meteor large enough to be dangerous came within fifty thousand miles of the rocket, it reflected the radio signal sent out by the special transmitter at five second intervals. The time which elapsed between the sending and the receiving of the reflected signal was measured by a new German instrument, which can accurately record thousandths of a second.

Because of the remarkable advances that have been made in the last fifty years in the manufacture of automatic calculating machines, the distance of the meteor could be ascertained, and its course automatically plotted on the celestial chart which Javis had prepared. As the course of the rocket was also electrically plotted on this chart, Javis could determine several minutes in advance if there were any danger of a collision. Then he had merely to press the button which exploded his gases at the right point on the rocket to send it off in a new direction, avoiding the meteor.

Of course, Kornfield, you understand that this description I have just given you of the apparatus which enabled Javis to avoid large meteors, is necessarily incomplete, inadequate, and faulty, and perhaps it was stated rather poorly. You cannot describe in two minutes a wonderful piece of mechanism which took two years to construct. But perhaps you can form some idea of the unbelievable complexity of the instrument from what I have told you. It performed its functions perfectly.

The huge rocket had left the earth. Though Javis was strapped in his seat, controlling the gigantic vehicle's course with light touches of his finger on the numerous electric push-buttons which surrounded

him, Brown had unstrapped himself, and was roaming around the rocket's interior, enjoying the almost complete absence of gravity. Being thirsty, he obtained a drink of water from the watertank, but he had to suck it through a straw, as without gravity, liquids would not flow. When the two travelers became tired, they took their injections of procaine.

Procaine, you know, is an artificial drug, which, while it possesses the stimulating qualities of cocaine raised to the *n*th degree, is not habit-forming. Javis and Brown did not intend to lose any time by sleeping.

Seven hours after leaving the earth, Brown reported over the radio that all was well. Ten minutes later he found Duseau.

The dam' fool had somehow managed to get aboard the rocket before the take-off. Perhaps he did it by bribing one of the guards. He had concealed himself between the two tanks which contained the motor fuel intended for use when the rocket should return to the earth's atmosphere.

He must have been insane. I can account for his actions in no other way. He had become a monomaniac, and his one thought was to do all possible injury to D. Francis Javis. And he did not intend to stop at murder. When discovered, he drew an automatic and fired.

The bullets were poisoned. If Brown or Javis had merely been scratched by one of them, the wound would have been fatal. But Duseau missed, although one bullet went through Brown's coatsleeve. He escaped death by less than two inches. The same bullet demolished the radio receiver. Then, as the gun jammed for lack of proper oiling, Brown leaped upon the cursing stowaway, knocking him over. As there was practically no gravity, Duseau didn't exactly fall, but Brown's blow to the jaw caused his head to strike the protruding valve of an oxygen tank with sufficient force to render him completely unconscoius for thirty-five minutes. Brown tied his hands and feet with a piece of rope that had been left aboard the rocket when it was being loaded. When Duseau regained consciousness, he started such a tirade of abuse that Brown gagged him also.

Then Brown reported the whole affair over the radio, adding that it was useless for us to try to reply, as Duseau's bullet had rendered their receiver totally useless.

ON the earth, Gibson and I recorded with telegraphones every word received from the moon party. My station at Albany was packed with reporters from newspapers and radio news services, eager for the latest details. The whole world gasped when it heard of Duseau's unsuccessful plan to capture the moon rocket and kill the two men whom he hated. Every nation waited impatiently for more news.

Nothing else of importance, except three narrow escapes from meteors, took place until they reached the moon. I have already told you of their extraordinary landing upon the summit of a lunar peak. After they landed, they ate a hurried meal, and then ventured out upon our satellite's untrodden surface.

I have here, Kornfield, a large composite photographic chart of the moon. Here you see the Mare Tranquilitatis, or "Sea of Tranquility." What a name for such a scene of violence! You see the jagged mountains, the enormous craters! Dead volcanoes! But are they volcanoes? No one knows

<sup>&</sup>lt;sup>1</sup> Note. In trying to present a truly scientific solution of the problem of reaching the moon, the author has purposely refrained from all mention of the Millikan Cosmic Ray, because so comparatively little is known about this subject at the present time. The reader may assume, however, that Javis' large staff of scientists, backed by a billion dollars, was able to discover some suitable method of neutralizing or counteracting the probably harmful effects that this ray might have upon human beings.

positively. If they are, how terrible must have been the eruptions, in the days when the moon was young! Consider the size of those stupendous craters. Many exceed fifty miles in diameter—Theophilus is sixty-four miles! And the largest known terrestrial crater, which is Aso San, in Japan, is less than seven miles in diameter. But I am digressing again.

This peak that I have marked with red ink is the one upon which they landed. You observe that it is not crateriform in shape. It is a mountain, not a volcano. Its summit is remarkably level, and is roughly twelve hundred feet square. On this miniature plateau the moon rocket finally landed and came to rest. The mountain is almost ten miles high.

When Javis and Brown emerged from the rocket, several facts were brought to their attention. One was the inferior gravity. They could leap thirty feet with the greatest ease. Another was the contrast between sunlight and shadow. The rare lunar atmosphere does not diffuse the light to any appreciable degree. It is, of course, entirely too rare to support human life. Javis and Brown were equipped with oxygen masks.

They found no form of life. The moon is dead. Its day of splendor is past. What secrets it still holds, no man can guess. The two explorers were only able to investigate an extremely small portion of the moon's surface, because of their limited food supply, and also because they landed about forty-eight hours after the lunar dawn, and intended to stay for the equivalent of ten earth-days, leaving a couple of days before the lunar sunset. You cannot carry on a very extensive exploration in ten days.

During the seventy-two hours after their landing, they thoroughly explored the peculiar truncated peak upon which they landed. They took many photos, and also collected several samples of the rocks for later analysis. Of course, men found out many years ago, by means of polarization photometers and various other instruments, that the surface rocks of the moon are mostly pumice and other stone high in silica. But Javis intended to bring his samples back to the earth and find out exactly what they contained. Perhaps he had hopes of rare minerals. I do not know.

They returned to the rocket frequently, and Brown reported their discoveries over the radio.

They kept Duseau bound. When they ate, they fed him. He remained sullen, silent, brooding over his misfortune, and planning revenge. The longer he was kept bound, the greater grew his maniacal unreasoning hate.

When Javis was satisfied with his investigation of the mountain upon which they had landed, which he had whimsically named "Mount Olympus," he decided to undertake a similar exploration of the nearest neighboring peak, which was west of "Mount Olympus" and about the same height as it. I think Javis named this other mountain "Mount Parnassus," but I am not sure.

Javis and Brown took another shot of procaine apiece, and set out. Brown carried the concentrated food and the portable radio sending equipment which I had designed, while the Doctor burdened himself with a spare oxygen apparatus for each of them, a very limited water supply, and a few of his scientific instruments, including a couple of recording thermometers.

Although they intended to be away from the rocket at least seventy-two hours, they left Duseau bound,

without food. They could not trust him loose. Javis did not intend to give up his chance to explore "Mount Parnassus" out of consideration for the man who had tried to murder him. Brown didn't want to be left out of the adventure either. So they left Duseau bound. He would have to get along without food.

THE two explorers reached their destination in a remarkably short time. Even though they were burdened with large packs, they could jump many feet with the utmost ease. They descended "Mount Olympus" by leaps and bounds, and ascended "Mount Parnassus." Even though they were greatly fatigued after many hours of steady jumping, they kept on. They reached the summit, and a bullet passed between them.

How Duseau escaped from his bonds is not known. Perhaps in a moment of desperation, he had summoned enough strength to burst them. Or perhaps he wore them through by steady rubbing against some sharp edge.

He escaped, and set up the machine gun. When his two enemies reached the summit of the neighboring peak, he fired, using the telescopic sights. Javis and Brown took refuge in a large crevice between two enormous boulders, set up the radio, and reported the matter to the earth. A quarter of a million miles away, my sensitive detectors picked up the signals. Soon the whole world knew of Duseau's triumph.

I've often wondered why he went to so much trouble in order to try to kill Javis and Brown. He was familiar with the operation of the rocket. He could have taken it and departed, leaving them stranded without a possibility of rescue, and his purpose would have been accomplished. Perhaps the idea never occurred to him. Or perhaps it did not agree with his ideas of a fitting revenge. I suppose he was entirely demented. No one can account for the actions of an insane person. The fact remains that instead of taking his opportunity to escape with the rocket, leaving the others to starve, or to freeze to death in the cold of the lunar night, he set up the Marvite gun with the purpose of killing them first, and then returning to the earth with the rocket.

Javis and Brown soon discovered that they could not emerge from their refuge without exposing themselves to Duseau's vision. Whenever either of them even showed his head, Duseau fired. Usually his shots came close. You will remember that the Marvite gun was equipped with very accurate telescopic sights.

I wonder if a queerer situation was ever conceived by the most scatter-brained writer of imaginative fiction. A madman on a mountain of the moon, with an ultra-modern machine gun, attempting to kill two men whom he considered his enemies, who had taken refuge in a crevice between two boulders on the summit of another lunar mountain, from which crevice they dared not emerge.

Yes, it was a curious situation. It was tragic, too. What would Javis have said, had he known, when he performed what he considered the trivial action of discharging an insubordinate assistant, that it would lead to the dire straits in which he now found himself?

Emerging from the station at Albany one day, for the purpose of snatching a bite or two of lunch, I was accosted by a young girl of about eighteen, I should say, who seemed greatly troubled about some-

thing, and expressed a desire to speak with me privately. I invited her to lunch with me, and this, briefly, is what she told me.

She was engaged to be married to Jack Javis the following June. But her fiancé had recently suffered very severe financial losses, perhaps because he had less experience in Wall Street than the men who were against him. Jack Javis had foolishly borrowd right and left in a vain attempt to avoid the impending crash, and he had been wiped out. Now he was penniless, and about three million dollars in debt. His creditors were pressing him. His assets were nil.

The girl had come to me to ask if there were any possible way I could get in touch with Dr. Javis, and ask him to lend his son enough money to pay off his debts. She also mentioned the will, saying that the huge fortune in diamonds should really have been left to Jack, not to the worthless Donald, and asking me, if I should succeed in communicating with the Doctor, to suggest that he change the will.

It was with the utmost regret that I was forced to explain to the almost hysterical girl that there was nothing that I could do. The moon explorers had no receiver. There was no possible way for me to get word to them. When I had told her this, the girl asked me to permit her to be at the receiver with me. Of course I granted the request, although it was against the regular rules.

I suppose you can guess now, Kornfield, who Jacqueline is. The fact that she had been crying, did not detract from her loveliness. I caught myself envying Jack Javis as we walked the short distance back to the station. Not always will a rich man's sweetheart remain loyal to him after he has lost all his money and three million dollars more.

When we reached the station, Gibson met us at the door. The peculiar expression I saw upon his long, lean, intellectual countenance made me start.

"It's the beginning of the end, Clankey," he said, "Javis has gone crazy, too."

RAN to the receiving room. From the instru-I ment I heard distinctly Javis' voice, a quarter of a million miles away. What he was saying confirmed Gibson's statement. He was raving incoherently, cursing Duseau, cursing himself for a fool for having brought the machine gun, begging that if Duseau should return to the earth he would be punished for murder, and much more along the same line. It was terrible.

In one corner of the room the silent, efficient, never ceasing telegraphone recorded every word permanently, electro-magnetically.

To make a long story somewhat shorter, let me say that Javis continued to rave like a maniac for many hours. Then suddenly his brain cleared.

"We have food for only a day more," said his voice, emerging from the most sensitive radio receiver in the world, "and our oxygen apparatus will not function for more than thirty-six hours more. I am saying good-bye to the world.

"Duseau has beaten me. If the fates will have it

so, so be it.
"It is my wish that my entire personal fortune, including the diamonds in the vault at 198th Street and Fifth Avenue, New York, he left to my younger son, Jack, as he has always-

The receiver fell silent. So ended the last message ever received by the great station at Albany.

For several minutes the utmost silence reigned in the receiving room. Finally Jacqueline—perhaps I should refer to her as Miss Bowers—who was with me at the receiver at that time, broke the stillness.

"He left them to Jack," she said very slowly, "but

can we prove it? How?"

"We can," I said. "Under the new inheritance laws of the State of New York, we have merely to prove that Javis expressed a desire to change his will so that Jack would be his heir. We have his exact words recorded on that telegraphone in the corner. In case there is the slightest doubt upon the part of the authorities that Javis was the man who said those words, I will have one of my associates, Dr. Robert Haines, who happens to be the greatest living expert on phonophotographical processes, take a photograph of the vibrations of Javis' voice as he said those words. This photo can then be compared with photos taken of the vibrations of other parts of our telegraphone record which are known to have been uttered by Dr. Javis, and the identity of the speaker of those words which give the second greatest fortune in the world to your sweetheart can be established beyond the possibility of a doubt. Fingerprints can be forged, but the vibrations of the voice cannot be forged, even though the voice may be disguised. No two human beings have exactly the same voice."

After I had explained this, Jacqueline left me to carry the news to her fiancé. I sat in silence a long time, wondering what had interrupted Javis' last message, wondering how the two explorers must feel, waiting for death to overtake them on their mountain. It must be a terrible sensation, Kornfield, to wait for death, without hope, without a chance, knowing that your enemy has triumphed. I sat in silence a long time, and then went home for some muchneeded sleep, leaving Gibson at the station, in the vain hope that some further message might be received.

Two days later, Professor John P. Hauser, of Yerkes Observatory, reported that the rocket had left the moon. The newspapers and broadcast stations of every nation informed the people of the world that Duseau was returning. Every minute of every day either Gibson or I or one of our capable assistants was at the receiver, but the moon rocket was silent, as we expected.

Then some one pointed out that if Duseau should succeed in returning to the earth, he could not be punished. Neither the United States nor any other nation could lawfully punish Duseau for a murder committed on the moon. If he returned, he could go free, said the most eminent legal authorities.

Three days after Professor Hauser's announcement, the telegraphonic records I had made were stolen, doubtless by some crook in the employ of Donald Javis. I should have foreseen that he would not give up the enormous fortune without a fight. I should have put the record in the safest safedeposit vault in Albany, but I left it in the unprotected radio-room, and it was stolen.

Of course I hired the best detectives I could get, and promised them an enormous reward if they could recover the little spool of wire that meant so much to Jack Javis, but I was secretly sure that Donald had totally destroyed it, so that there would be no chance of its recovery. Without it there was nothing but the unsupported word of Jacqueline and myself to prove that Javis had desired to change the will. This would be quite decidedly not sufficient.

HAVE never seen anybody as depressed as Jack Javis was in the nerve-racking, disappointing days that followed. The court of New York City, after one of the shortest cases in its history, awarded the fortune to Donald. Jack's creditors began stripping him of every bit of his personal property. Though he said nothing, I knew that he secretly blamed me for his misfortune. I offered him my entire fortune, a matter of about a quarter of a million dollars, but he refused it. It would only have been a drop in the bucket, anyhow.

Then the rocket came down at Chicago Field. As it entered the atmosphere, something seemed to go wrong. It seemed to hesitate, to wobble. It was evident that it was not under control. Then it fell.

It fell, three hundred thousand feet. Those who were watching saw it become red-hot as it entered the denser layers of the atmosphere. They heard the terrible hissing scream it made, as it plunged, ever faster and faster, to the waiting earth. They heard the horrific, cataclysmic swan song of the superairship, diving with ever-increasing speed to its doom. For it fell, three hundred thousand feet. It crashed.

The terrible concussion was recorded by every seismograph in the world. It is truly remarkable that the rocket fell in the only open space in the densely populated region around Chicago, the Chicago Flying Field. Had it fallen anywhere else in the vicinity, it would have been the cause of many deaths, and incalculable damage to property.

The fire department arrived quickly, and drenched the red-hot, flaming wreckage with floods of water. Then the police began to search for Duseau's body. As they were giving up the search as hopeless, some-

body looked up,

High above was a parachute, drifting with the breeze. It supported a limp, unconscious figure, clad in an exceedingly thick flying suit. It came to earth. Someone tore the leather helmet from the tired, haggard face. A thrill of the most intense amazement spread through the crowd.

The man was D. Francis Javis.

Gibson, sitting in his apartment in New York, manipulated a dial. His face assumed a satisfied expression as he tuned in Station WEBOD, the New York station of a world-wide chain of broadcasters that had a television news-service as a daily feature. Adjusting another dial, he gazed at the scene which appeared on the screen of his receiver.

It was Chicago Field. He heard the excited newsannouncer's voice telling of Javis' return. He saw the unconscious form gently placed in an ambulance

and rushed to the nearest hospital.

Then he called me on the 'phone. The two of us took off in my plane less than ten minutes later. We reached Chicago in a few hours, landed on the Illinois Hotel landing platform, left the plane with the mechanics, dropped two hundred stories in the express elevator, and were soon at Javis' hedside. He had just regained consciousness, and he told us what had happened.

In the hour of his triumph, Duseau had been

killed. Consider the tremendous power of the Marvite gun. Long ago men calculated that a bullet shot from a gun with a muzzle velocity of 6,500 feet a second would, if there were no obstacles in its path, completely encircle the moon! And that is what happened! One of the bullets Duseau shot from the summit of "Mount Olympus" traveled all the way around the moon, and hit him in the back! And that, Kornfield, is what I was thinking about when I spoke of a sub-satellite.

PERHAPS you may consider it a rather silly comparison, but I can't help thinking of that tiny projectile as a satellite, faithful to the laws of celestial mechanics, following unerringly its orbit around the moon, and returning to its starting point. I wonder how many other bullets are still circling the moon now!

Brown, exposing his head, saw Duseau fall. He and Javis were so excited by this occurrence that they returned to the rocket without the radio! They reached it less than thirty minutes before their oxygen mask apparatus ceased to function. They had used their reserve supply of compressed air completely during their return journey.

"And that," concluded C. Jerry Clankey, "is about all there is to the story. Because a maniac on the moon was so unfortunate as to stand in the orbit of a minute sub-satellite which he himself had launched, Jack Javis was able to pay off his debt. The Doctor lent him the necessary cash, and has just made a new will. So everything is going to be all right.'

"Pardon me, Kornfield, but I didn't quite hear that question. What happened to Brown? Oh, yes, I told you that the lucky fool has a charmed life. He was unable to start the motors when the rocket was entering the atmosphere. Duseau had apparently done something to render them useless. When the rocket fell, Brown and Javis jumped. The wind separated the two men.

"Brown landed almost a hundred miles from Chicago. His chute ripped slightly as he fell, and let him down too rapidly. But he landed in an apple

tree, and broke thirteen bones.

"A couple of modern surgeons patched him up, and in less than a month the incurable dare-devil was doing outside loops at six hundred miles an hour in his special monoplane, and making a fortune by recommending and endorsing various makes of spark plugs, motor fuel, cigarettes, and so on.

"By the way, I almost forgot that today is the fifteenth of June. It's too bad, Kornfield, that you're scheduled to speak to the Explorers' Club this evening about your discoveries in Tibet. If you weren't I'd take you to Albany with me to attend the wedding of Jacqueline Bowers and Jack Javis. I must leave at once. I almost forgot that today is the fifteenth of June."

I accompanied C. Jerry Clankey to the roof. He entered his waiting plane. The mechanic touched a button. The powerful catapult shot the streamlined flyer into the air. Jerry zoomed gracefully, and the little red biplane soon disappeared in the northern sky.