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## Table of Contents

### Feature Serial Novel:

- BLUE MAGIC (Part I) . . . . . Charles Willard Diffin 76  
*The sort of story you've been asking for—and an author you've been asking for—at his best.*

### Novel:

- THE RED PERI . . . . . Stanley G. Weinbaum . 10  
*You have approved of Weinbaum's stories. He has gone forward in this one to a point reminiscent of— You tell me!*

### Novelettes:

- SHIPS THAT COME BACK . . . . . Eando Binder . . . . . 54  
*A narrative of the skyraun that will hold you in a grip of realism—between the planets.*
- THE ADAPTIVE ULTIMATE . . . . . John Jessel . . . . . 108  
*A biological study that delves into the hidden recesses of psychological impulses—and makes them fascinating.*

### Short Stories:

- FRUIT OF THE MOON-WEED . . . . . J. Harvey Haggard . . . . . 44  
*Every projection of fact in this story is possible—yet it reads like a fascinating dream.*
- WHEN THE CYCLE MET . . . . . David H. Beaumont . . . . . 71  
*A new thought of the ultimate result of pursuing the theory of relationship between time and the galaxies.*
- THE LICHEN FROM EROS . . . . . Frank Belknap Long, Jr. . . . . 97  
*A universe by inverse ratio and a result unlooked for in a scientist's life.*

### Serial Novel:

- I AM NOT GOD (Conclusion) . . . . . Nat Schachner . . . . . 126  
*In which a man learns a great lesson about destiny.*

### Readers' Department:

- BRASS TACKS (The Open House of Controversy) . . . . . 153
- EDITOR'S PAGE . . . . . 125

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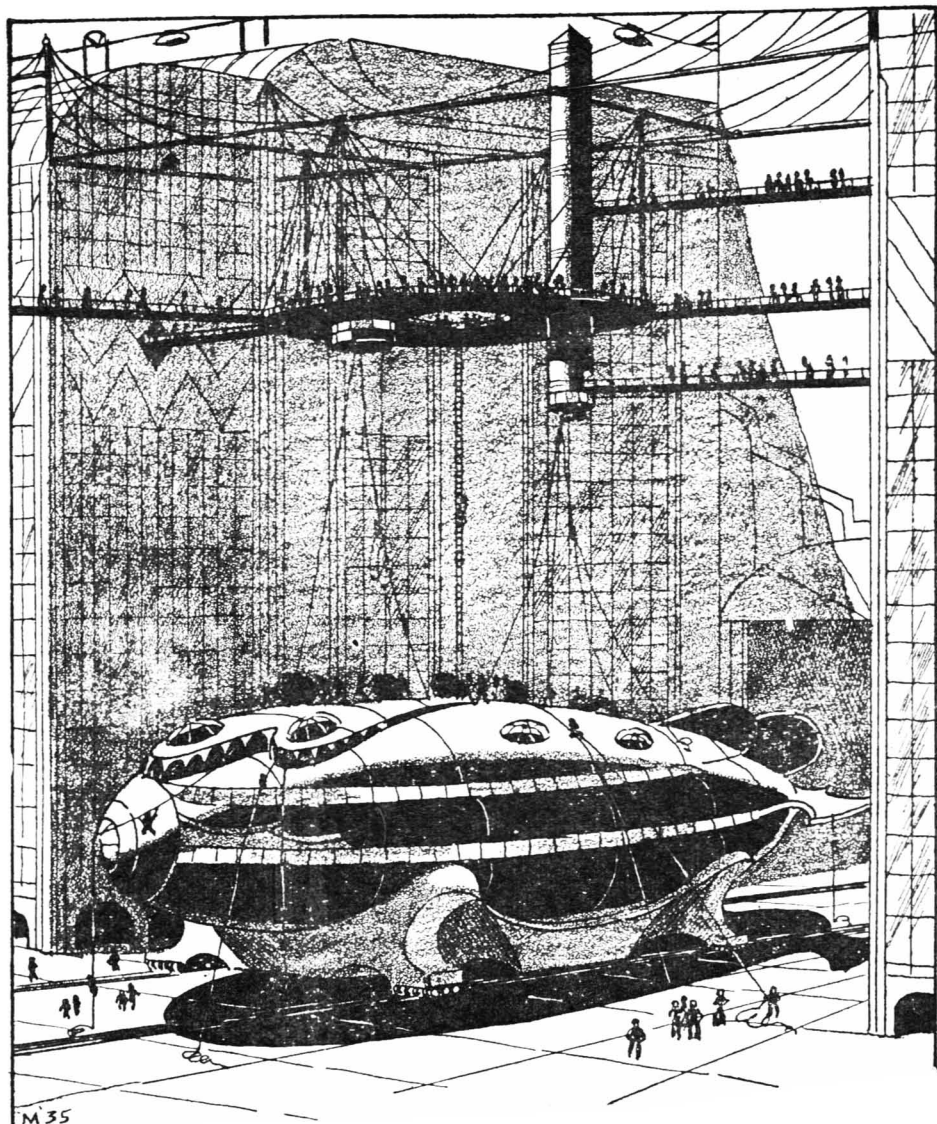
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# The Lichen from Eros

by Frank Belknap Long, Jr.

**A**LFRID GALTON was proud, and young, and happy. As he walked along the gleaming, horizontal windways his eyes glowed, his steps were buoyant. Beside him moved a hurrying throng of pressmen, **AST-7**

scientists, artists, privileged young students and graybeards with the insignia of dignitaries on their yellow leather, swagger jackets.

The spaceways snaked above the weathered bulks of the older space

ships; and when young Galton looked downward he saw the mottled, ether-seared tail of the lunar cruiser, *Ohio*, the old, once-swift *Europa* which had encircled Mars, and the Venus rocket, *California*, lying bright and still in the early morning sunlight.

The immense berths beneath him were full. All of the old valiant veteran ships were in and mechanics swarmed upon them. Metallic ladders crisscrossed on the rounded and eroded surfaces that had dared the cold night of space; grease-grimed little figures gestured from a hundred perilous vantage points far below. Every one was looking or moving swiftly westward along the spaceways, converging in streams upon the cable-suspended landing disk above the bright, new glory from the skies.

The white space giant, the *Top* of Memphis, had returned from Eros. The great sun shone upon it; Earth dew glistened on its screwed-down hatches and an aura of mystery and wonder enveloped it in the morning light.

The disk was crowded when young Galton joined his elders and a sprinkling of students on its burnished surface. His heelless, deerskin shoes carried him silently over the smooth metal to the side of Edgar Blaine, middle-aged botanist from the Smithsonian. Blaine's spare frame was vibrant with excitement, and his lean, hawk features were set in a molding of enthusiasm. He turned and nodded at Galton, then smiled broadly as his gaze swept the heavy, motion-picture outfit which the youth was toting.

"Lo, Alfred," he said. "That camera must weigh a ton. Why don't you use a kodak like McNeil and Hellman? Hellman wears his on his wrist."

Galton grinned. "Don't you think this merits a big camera, sir?" he countered. "There are certain effects I can't get, you know, with a pygmy. Hellman blows his salary on nymphs and air-

planes, but I prefer to improve my equipment. You've got to, in these times. The company is darned unsentimental. If we don't produce exceptional reels out we go on our ears."

The botanist nodded. "Your work is good, Alfred—scientifically accurate, worth viewing."

"Thanks," said Galton. "I owe it all to Winters, you know. He taught me to seek perfection. He used to say that very few people do their best, in work or play. When they do, their efforts command attention."

The young man gazed abstractly for an instant at the hushed, excited throng. Many of the world's great were there, maneuvering without dignity for positions of vantage on the disk. They were preparing to acclaim William Winters, leader of the initial expedition to the Earth's nearest neighbor, and commander of the *Top* of Memphis.

Far below in the streamlined, white body of the giant space ship were fifty-four scientists who had trod alien, wondrous soil. They were all elderly men, weighed down with erudition and distinctions, graybeards too serious to jest. When the hatches were lifted they would emerge and receive the acclaim of their peers on the disk. Botanists would greet botanists; zoologists, geologists and physicists would trade weighty comments, only their glowing, pale scientist's eyes revealing emotion in countenances rigid with an artificial glumness.

Galton knew the tribe, loved them, approved of them. All his life he had admired the scientific temperament above all else. These grave men were very human underneath and heirs of the Vikings of old. Not thoughtless men of action merely and not nebulous dreamers. They had stout hearts, and eight-cylinder brains functioned behind their pale brows. Intellectual curiosity dominated their lives, and beneath their somewhat worn and overgrave exteriors

the fires of passion burned at white heat.

But young Galton knew that he did not altogether belong—at least, not yet. He was too young, and much too externally exuberant—hard-boiled, too, and a bit flippant and cynical. Down there were real people, men tried in the crucibles of experience.

Galton knew that Winters would be glad to see him. Despite the acclaim of the graybeards on the disk—their leathern jerkins made them look a trifle less grave—the famed commander of the *Top* of Memphis would greet his protégé first. Amidst all that fanfare of dignity and distinction Galton would not be forgotten.

WINTERS was young Galton's cousin. Galton had lost both his parents when a very young lad and Winters had taken care of him. He had fostered his love of natural history through eight winters of fireside discussions over cups of black coffee and between puffs of a stout briar, and by summer excursions far afield. Fostered his love of photography too. When Galton was really eager and competent he had secured him a position with the International Film & Sound Record Supply, Inc., biological division. Galton's nature pictures had been exhibited before tens of thousands of student scientists in America and England and his fame as a craftsman was growing by leaps and bounds. But none of his past assignments could compare with this one.

The Supply had given him a stiff, extensive assignment, and he gloried in it. First he would film the opening of the octangular hatches and the emergence of the weather-bitten crew, then Winters and his famed associates. He would cover that for the news division, an assignment that should have fallen to McNeil or Hellman.

The directors admired competence, diligence, technical proficiency. Hell-

man was losing caste while he, Galton, was gaining it. After the news record was safe on its spool within his camera he would film, or at least request permission to film, the specimens. Strange, unearthly flora and fauna, spawned on the tiniest of asteroids. The thought thrilled him and he became so keenly eager that he could scarcely contain himself.

"I know how you feel," said the botanist sympathetically. "When I was your age, two and twenty, I used to turn somersaults over mere Earth-grown orchids, rare ones, of course. What wouldn't I have given for a glimpse of Venusian fauna in those days. Now I've handled fungi from the lunar craters, corrosive puff balls from Pluto, and red-slipper lilies, *bling* plants and flame-tongued ice flowers from Venus. But they don't really thrill me. When I was a young man, back in 1935 or 1940, we used to have a slang expression for it—'kick.' They don't give me a kick now."

Suddenly he gripped the young photographer's arm. "Look, there are the mechanics. It won't take them long to unscrew the hatches."

The landing disk was suspended by massive cables one hundred feet above the *Top* of Memphis. A rectangular opening, perhaps forty feet by fifteen, had been cut from the center of the platform. Against the waist-high rail which encircled this aperture at least eighty men and women peered eagerly downward at shining whiteness veiled in morning mists. Sunlight pierced the veil and mottled the great ship here and there.

The *Top* of Memphis rested between massive, vertical supports of black, pressure-indurated glass. Navigated with superlative competence, the white space vessel had returned unerringly to its berth from the cold night of interplanetary space. It rested at a slightly oblique angle, its flattened nose sloping

toward a wide expanse of gravelly soil and its tail projecting eighty feet behind the outer edge of the disk above. The ship was two hundred feet from nose to stern.

Over its entire length mechanics swarmed. Two tiers of ladders, looking like spider-web trceries to the observers on the disk, dangled from its middle segments and single ropes slung indiscriminately across the nose and tail, tested the mettle and equilibrium of the little forms that were clambering like monkeys from the ground to the hatches and across the top where the glow was brightest. Hammers and anvils clattered on the shining metal; and shouted directions drifted upward, whipped by a faint breeze.

"Would you think me very ignorant," said the botanist, "if I confessed that the mechanics of this marvel have completely eluded me. As a practical physicist I'm a complete flop."

Galton smiled, wrinkled his brow. "Flop, sir?"

"Forgive me," said Blaine, "more old slang. I live too much in the past—sentimental weakness of mine."

"A nice old boy," thought Galton, "modest and candid." Aloud he said: "I don't wonder you have difficulty in understanding the propulsive principles of the *Top*. All of the old space ships, as you know, achieved momentum by the timed explosion of rocket charges. But the *Top* figuratively sails under its own steam. It took me a couple of weeks to figure it out. I'm a much worse physicist than you, sir."

THE HAMMERS were clattering below. Pabst, the foremost academician of the German Free State, was fuming with impatience. His leathern jerkin strained about his massive torso as he pressed closely against the rail. His wife, a buxom frau with rosy cheeks, stood teetering on her toes beside him. The botanist grinned, said: "It will be

a couple of minutes before they get the hatches open. Could you give me a thumb-nail explanation? I'm really interested."

"I'll do my best," said Galton. "It's a complex device, but in some respects perhaps more primitive than the explosive packets used in the older ships. The principle was worked out experimentally nearly a quarter century ago, by a Professor Rouss of the University of Virginia.

"Rouss ran rotors in blasts of compressed air and achieved a centrifugal force a million times as strong as gravity. Startling, wasn't it, for 1935? But not so startling when you take into consideration the size of the rotors.

"The rotors and the stators, or shafts attached to them, were incredibly tiny, so that the tremendous air pressure naturally worked miracles. The rotors made nearly 8000 revolutions per second, thus traveling at a speed of fifteen miles a minute. A bullet fired from a high-powered automatic would perhaps travel half as fast for a couple of seconds.

"That's speed, of course, but useless for interplanetary travel. A man would be a graybeard traveling from planet to planet at that rate. Also, experiments with higher speeds caused the metal of the revolving rotors to fly apart. Few metals can tolerate a very swift propulsion."

"Serious obstacles," said the botanist.

"Yes, very," said Galton. "It was not until two years ago, in the spring of 1962, that 'itintat' was invented. That metal will tolerate fifty thousand revolutions a second. And you know what we've done with compressed air."

He nodded downward at the white wonder in the mist. "In the stern of the *Top* is a centrifuge so potent that it would move a mountain. Not one, but millions of proportionately tiny rotors attached to shafts, millions of tiny tops generate sufficient energy to

send the Memphis giant around the solar disk or out into black chasms of interstellar space."

The hatches of the white wonder were swinging open. The men and women on the disk ceased to breathe as the massive octangular flaps of metal were drawn upward by the perspiring mechanics a hundred feet below. Galton clutched the rail till his knuckles whitened, and the botanist strained forward.

Jet-black octangular vents now loomed beneath the upraised hatches. The mechanics gathered in a little cluster in the center of the shining summit, jabbering and gesturing excitedly.

From the rectangular aperture in the disk at thin metal ladder was slowly descending. It was operated by a space-way mechanic from a little rotunda perched amidst the vast meshes of cable and aerial promenades that spread fanwise in all directions both above and below the landing disk. The ladder was jointed and flexible, and was fed out from a groove at the base of the rail by electric current.

Galton's camera rested on the rail, with lens focused on the upraised, central hatch of the great ship. It made a purring noise as it functioned, winding yards of precious infra-red negatives on the automatic spools within.

Winters emerged suddenly. He leaped out of the dark central hatch. His tall, spare frame was clothed in a yellow rubber lounge suit. He was wearing dark spectacles. His beard was untrimmed, his hair frowsy. The trousers of the lounge suit were tucked negligently in shiny black boots. A pipe dangled from his large mouth. He heaved his gaunt person to the top of the upraised hatch and sat there without dignity, twisting his head about.

RELIEF and affection flooded Galton's being. "Look at him," he exclaimed, clutching the botanist's arm.

"The old boy doesn't care about his dignity. You'd think he was a kid home from a lark."

Men were now emerging from all the hatches. Two little Chinamen helped a gigantic Negro out of the stern hatch and five husky white men, all members of the crew, followed the ebony giant into the sunlight. Two elderly scientists and a woman in a green smock emerged an instant later. They stared upward at the thronged disk, shading their eyes, distorting their features.

Presently Galton recognized three or four of the emerging explorers. Talmann, the entomologist, and Allen, of the geological survey, leaped briskly into view. The immensely tall, extremely eccentric Fred Andrews, athlete and adventurer, joined Winters on the hatch.

The descending ladder now swung a few feet above Winters' tousled head. The leader of the *Top* expedition looked up, grimaced, and began an animated conversation with his companion. He seemed excited, and waved his hands about.

It was all going on the infra-red film in Galton's camera; and it made the young man uneasy. Winters would look like a jabbering idiot to millions in the news theaters if he wasn't careful. The stuff would also be telestereographed about the world, sent to the mining outposts on Venus and Pluto. Why couldn't Winters be careful?

"He doesn't care a damn about the reception," said the botanist. "He's chewing the fat. See him now. You'd think he was in his study at home. A schoolboy, you say? Eh, an infant." But there was a ring of admiration in the botanist's voice.

If Galton was apprehensive before, he was overwhelmed with shame when Winters started to ascend. He climbed up the ladder as far as the fifteenth rung; then suddenly seemed to remember something and returned to the sum-

mit of the space ship. He talked an instant with Andrews, waving his hands about even more wildly, and then surged up the ladder again. On the tenth rung he stopped, started to descend and then changed his mind, climbing swiftly to the top.

As he clambered over the rail he was greeted with a burst of applause. Galton shivered, knowing how that would sound on the film. The graybeards were applauding him, not his antics on the ladder, but it wouldn't sound that way on the screen. What followed was even worse. Winters was nearly mobbed. His colleagues forgot all restraint, all decency. Wild with admiration, they pulled and tugged at him and lifted him into the air.

Galton swung the camera about, captured it all. Then he clicked off the switch with a groan and backed swiftly from the rail as the crowd surged down upon him.

Winters spotted him from the shoulders of a well-known biologist. His dark eyes flashed suddenly in a gaunt face, a gaunter face than Galton had known. The weeks on Eros had aged and changed him, tragically, terribly. Galton was alarmed.

"Hey, Al!" shouted Winters. "It's great to see you. Get me out of this, will you?"

Galton met the appeal with grim dispatch. He shouldered his way between the famed ones, pushing, shoving. An astrophysicist cursed, a zoologist groaned; a Royal Society medal caught on the youth's sleeve, was ripped from a broad chest. But Galton rescued Winters.

"That was a sticky mess," said Winters, as they raced along the spaceways toward security and freedom. "I've got to get away from them or I'll crack up. I've been under a frightful strain, Al."

Galton increased his pace. He was breathless but prouder than ever. Win-

ters was fleeing from the best minds in America and Europe, preferring the company of a young tyro, a hard-boiled young whippersnapper. Hell, maybe the young fellow Alfred Galton had something in his head after all. Otherwise Winters would have stuck it out on the disk.

THEY reached a subterminal of the Manhattan Gyroscopic Railway on the high, shining spaceways, slipped swiftly into the swinging seats of a car that was getting ready to pull out, and relaxed. The melon-shaped vehicle purred, then vibrated loudly, and swung with dramatic suddenness out into space.

On a gleaming, single rail, so tenuous as to be almost invisible, the car sped over the golden waters of the North River, swung in a long arc downward over the triple-leveled streets of lower Manhattan and entered the wide, dark mouth of the central terminal with a loud droning of its twin gyroscopes.

Fifteen minutes later Galton and his cousin were sipping tea in a tiny, self-service restaurant in midtown, third-level New York. Winters was drawing designs with a pencil on the margins of a calorie menu at his elbow. His eyes were shadowed, his features grim. Words poured swiftly from him as he drew circles, triangles and funny little pigs with twisted tails. Galton hung on his speech, fascinated, wonder-struck.

"On all that dark, alien little world there was no life," said Winters, "no visible life. Fierce winds raged over a landscape that looked like something mixed in the crucible of a medieval alchemist. When we emerged from the *Top* and gazed downward we were nearly blinded by the glare of mountains and valleys and river-beds, destitute of vegetation, that wound in all directions like a nest of serpents.

"The mountains were jagged, hung

with crags. They usurped the far horizon, shining with reflected radiance, with a glow as of burnished metal. They were blue-black, forming an ominous backdrop to a world of inanimate shapes that glowed. Everything glowed, everything—glowed with a luster ten times as bright as the plains of Mars, or the lunar mountains."

"And that seemed ominous," said Galton, with furrowed brow.

"Yes, very. I can't define it precisely, but the sensation seemed one of—seduction. The brightness dazzled us so that it made us fearful, afraid, and yet we were fascinated by it.

"It was a twisted, tumbled, malformed, and unutterably grotesque world. The ground sloped at crazy angles. There were deep depressions in the gleaming soil, hillocks with serrated edges; river-beds that wound fantastically across miles of blue-black plains, and low plateaus that rose like brave mounds from an all-engulfing sea of brightness.

"Somehow the smallness of that resplendent sphere of alien and brilliantly glowing matter was not reassuring. We felt lost in space, perilously adrift on a fleck of matter. Though we could see the Earth as a bright star in the sky and the moon as a smaller orb, the sense of alienage weighed horribly upon us. Not even during the long journey through the cold interplanetary gulfs had we experienced such dismal forebodings.

"And yet we were not on an uncharted mystery, on a planet or asteroid invisible in the telescopes of Earth and only known by its movements. For many years now we have known the main facts about Eros. Thirty years ago we discovered that it was not one planet but two, and that its twin orbits occupy a periphery in the skies of perhaps seventy-five or a hundred miles. Each little asteroid is perhaps six miles

in diameter. When it is night on one it is day on the other and they revolve about each other in five hours, sixteen minutes.

"We also know that this arrangement is unique in the solar system. Throughout the vast abysses of the galactic structure there are numerous double stars and perhaps double planets revolving about them, but Eros is the only twin in our system.

"These tiny spheres are the Earth's nearest neighbor, but their mass is so negligible that they hardly deserve to be called sister planets. They are not even little brothers or cousins of the terrestrial globe. They are just—well, just pin-points or flecks of matter hovering between the Earth and the nearest planet.

"We have computed their density and mass. We know that the mass of Earth is nearly two hundred million times as great, but that Eros' density exceeds the density of our globe.

"ALL THIS we verified. We discovered nothing amiss in the observations and speculations of the astronomers. But I am getting ahead of my story. We crawled out of the hatches and descended to the glowing blue-black soil of Eros the first. Above us in the sky Eros the second shone with the reflected radiance of the great sun. It was night on our half of Eros the first; but it was a white night of dazzling splendor. Eros the second illumined its twin with a blinding glare.

"I was the first to descend. Behind me came Andrews, followed by Ruth Brent and Fletcher, the geologist. We descended hand over hand on the embossed metal ladder which, as you know, runs from the central hatch to the base of the *Top*.

"I was relieved when my boots sank into the bright soil and I discovered that I could breathe with ease. There



was sufficient oxygen in the air of our little gadfly to sustain the great bipedal hulks of Earth. We had drawn in samples of the air through a filter valve and tested it before emerging; but it was a relief to test it again by drawing it into one's lungs and discovering that it was in all respects as fresh and invigorating as the air of Earth.

"All the way down the ladder I kept close to the ship, almost hugging the metal, but when I reached the ground I swung completely about, relinquished my hold on the last rung and took a step forward.

"It was the longest step I shall ever take. It carried me high into the air, over gleaming waterways and grave-shaped plateaus to the summit of a glowing, crag-hung mountain. My feet skimmed the gleaming soil, then scraped violently and finally slipped into a groove of steel-bright metal that tore and dragged at my ankles and held them in a grip of iron. I cried out, toppled over backward.

"For an instant I lay on my back staring up at the bright sunlighted face of Eros the second, and far off in another part of the sky the Earth watched me as I stared. I was wonderstruck, terribly shaken and startled. I twisted my head about, saw Earth, and knew that it was not a crazy dream. I choked, cursed my stupidity in slow monosyllables.

"I weighed perhaps a few ounces. I should have known what the enfeebled gravitational force would do, should have realized that on Eros as well as on all the little planets and asteroids scattered between Mars and Jupiter and out beyond the rings of Saturn a man would bounce about like a feather if he wasn't careful. I hadn't been careful. I had taken a bold, energetic step forward and the momentum had carried me perhaps two miles—perhaps five.

"Slowly I set up, wrenched my ankles

from the wedge of metal. The effort carried me into the air again. I came down on another peak, having glimpsed in flight a valley between two mountains and a long, dry river-bed like a banner unfurled.

"I won't weary you with further details of my flight around Eros. It was really a flight, though I flew without wings and the take-offs were sudden and unpremeditated. I simply stirred and the little gadfly world moved beneath me. I saw a red dawn and knew that I was approaching the day side of the asteroid. Into the bright realm I soared and landed on a hillock that shone.

"In the glare of the solar disk I rested for an instant, then moved again. Presently the night side came sweeping back; or rather, I flew toward it. Two more swift space journeys beneath the glow of Eros the second brought the *Top* into view.

"I had covered eighteen or twenty miles in as many minutes. But now arose a problem that taxed my ingenuity to the limit. It was easy enough to fly from mountain peak to mountain peak, but getting from a high peak down into the plain where the ship lay wasn't easy at all.

"I experimented first with slight muscular flexings, gentle movements of my body in repose and soon discovered that I could lift myself and actually progress a few feet by such means. I made little short flights, coming down in the most grotesque postures imaginable.

"I WAS impatient to get back to the *Top* and soon decided to increase the tempo and extent of my movements. I stood upright and even ventured to move forward a few inches. Instantly I flew out over the *Top* and landed on glowing soil three or four hundred feet to the east of the ship. I moved again, and sailed back over the *Top* to the base of the mountain.

"But gradually I modified my movements until they carried me within hailing distance of the ship, and eventually to the foot of the ladder. I seized the lowermost rung and ascended swiftly. I was so damned glad to get back to old Memphis that I didn't think of anything else for a couple of seconds. I was breathless and bruised and my nerves were shrieking. Then I recalled with a sudden pang of anxiety that Ruth and Freddie had followed me out, and were probably flying about somewhere on the night side of Eros. Perhaps calamity would overtake them.

"And poor old Fletcher, the oldest member of our party, was out too. He was eighty-two, and would bruise easily. I was sick with concern when I clambered over the top of the ladder and pressed the centrifuge which opened the hatch. Funny how easy the hatches opened on Eros. No mechanics had to do a riveting job of it. Despite the metal expansion brought about by exposure to the unearthly cold of interplanetary space the hatches worked smoothly. A single centrifuge could swing them.

"I climbed down the sky ladder inside, ran along corridor V56 and smashed right into poor old Fletcher. His eyes goggled.

"'Didn't know that was you!' he gasped. 'I heard the hatch opening but I thought it was Ruth.'

"I gripped his bony wrist till he winced. 'She's still out then,' I exclaimed. 'I was afraid something like this would happen. I warned her to stay inside, do you hear? I warned her. It's your fault she's in peril. You told her to go, urged her.'

"Fletcher was patient with me. I guess he knew how I felt about Ruth.

"'She followed you,' he said. 'She saw you shoot off, and was worried. I really tried to hold her back, did my best.'

"'And Freddie?' I demanded.

"'He went after Ruth.' He cleared his throat apologetically. 'I tried to hold him, too. Don't see why the whole expedition has to go floating around Eros just because one of us forgets he weighs a half pound.'

"I looked at him, hard. I was still a little angry. 'Forgetting had nothing to do with it,' I said. 'How was I to know that just stepping out briskly would send me shooting off like that?'

"'Ruth will be all right, my boy,' he said.

"I didn't share his confidence. 'I should have known better than to let her descend,' I said. 'There's nothing out there would interest her anyway. She's only interested in vegetable epiphytes—in lichens—and there's no life on Eros.'

"I didn't know then how wrong I was. I didn't know that Ruth was to be stricken by something that looked exactly like a lichen—a thing of bright wonder, and a thing of horror. I was determined to encircle Eros again in search of her. I even started up the ladder when I heard the hatch above me slowly opening.

"A chill wind blew upon me. Some one was coming down the sky ladder laboriously, as though burdened with more than weariness. I retreated to the corridor and waited. Presently the man on the ladder groaned, swore softly, and his feet sounded on the metal floor of the corridor.

"Old Fletcher gasped. 'It's Ruth—Ruth and Freddie. Good heavens, she's fainted.'

"FREDDIE came staggering toward me along the corridor. His face was ashen. I leaped toward him and relieved him of his burden. I won't tell you how I felt when I looked into Ruth's face. I felt entirely responsible, for one thing—guilty as a legion of

devils. But I won't try to describe my other emotions. They stripped my mind of pretense as the cold of outer space strips atoms.

"I knew that she was my whole life, just about everything. Without her I was just a bum, third-rate biologist. I never felt sorer that I hadn't asked her to marry me before the Memphis business turned me into a blind, impersonal machine. You see, I thought she was dead.

"Her face was very white, but she opened her eyes after a minute and looked up at me. 'Hello,' she said. 'I saw you flying off, and was worried, had to follow. I leaped into a hornet's nest, I'm afraid.'

"Her face contracted in sudden pain, she moaned. 'My back,' she said.

"Old Fletcher helped me carry her to the hospital unit. We put her on a table and saw what the lichen had done to her back. The flesh was bared in spots almost to the bone; and the lichen was still clinging to the edge of the wound. I had to be cruel in order to be kind. She cried out when I tore it off, then smiled at me through moist lashes. I nodded reassuringly, then bent and kissed her forehead.

"'It's nothing serious,' I said. 'I'll pour on some Dakin's solution and by to-morrow you'll be feeling frisky. We'll celebrate out in space.'

Winters emptied his cup of tea, nodded grimly at Galton. "I thought it was a lichen," he said. "It looked like a lichen—dry and brown, with little brittle knobs all over it."

Suddenly he pushed his chair back from the table and his hand went into the upper, right-hand pocket of his rubber lounge suit. He drew forth a square, metal box about ten inches in diameter. In utter silence Winters laid the box on the table, snapped open the lid and moved it toward his companion.

Galton stared in silent curiosity.

There was nothing even slightly startling about the specimen which nestled on a yellow slide in the box. It did look precisely like one of the common varieties of terrestrial rock lichens. Just a plain, brown, dried-out vegetable scab or scurf, three or four inches long.

"It is harmless now," said Winters suddenly. "The people are dead; and there is no life in all that strange, tragic little city. The armaments are standing idle. They are stranger than anything else in the city, those armaments. Tiny blast guns, heat ejectors that spit flaming death at 300 degrees centigrade.

"I tested the heat by isolating them under a microscope and checking it on a bolometer—amazing. The tall buildings are wedge-shaped, stupendous. They are built according to some alien geometry; I cannot fathom it. I toppled a few with my thumb. Half the city is in ruins because I was a careless fool and crushed the lichen violently between my thumb and forefinger when I tore it from Ruth's back. I saw what I had done when I put it under a microscope."

GALTON was staring at his companion in sudden alarm.

"I am quite sane," said Winters with a grim, pathetic little smile. "I know it sounds incredible, but—it's true. If you'll reflect a moment, you'll see that it's all quite logical. But, of course, I'll show you how it looks under a microscope, you can see for yourself. I say it's logical because, don't you see, a city on Eros, on a tiny gadfly of a planet in the sky, could not be much larger than a man. And that would be an enormous city, for Eros.

"This is just a normal-sized Erosian city—what one would expect. The people are microscopic, naturally. We would be microscopic to the inhabitants of a world millions of times the size of the Earth.

"There were thousands of living people in the city when I tore it from Ruth's back. It was dangerous then. The blast guns singed my palm even when I held it at the tip of long tweezers and when I put it under the microscope the terrific heat of the ejectors dissolved the lens instantly. But that was ten days ago, out in space. The city is a charnel now; all its inhabitants have died of starvation.

"I could not save them. I tried, but could not. Five days ago I put the lichen on the slide of the microscope and there was no explosion of armaments. It was then that I discovered its real nature, saw the marvelous buildings, the people in the streets.

"Half the population were dead or dying, and the rest had abandoned hope. They no longer fought to save their little world, to repel an unfathomable invader. They set about in grim dejection and despair. I broke off the tops of a few buildings, looked inside, isolated a few little figures on a separate slide and studied them. Hundreds died while I watched the city, in the space of a few minutes.

"I never learned their source of nourishment. I tried spraying the city with vegetable and animal nutriments, fine powders. But apparently they subsisted on some alien substance drawn from the metallic soil of Eros."

Suddenly a spasm of grief and pain convulsed Winters' features and he lowered his eyes. "There was one that I tried desperately to save," he said.

Tears appeared suddenly in the corners of his eyes, glistened on his weather-bronzed features. Young Galton stared, hardly crediting the evidence of his senses. Winters' nature was one of extreme reticence. His emotions at times were like great winds at sea; but he sailed with hurricane hatches clamped down. Yet now he was weeping unashamedly.

Presently he spoke: "I said that Ruth was my whole life. But sometimes a man can be faithless to his life in thought without consciously willing it."

Galton's wonder grew. "I will show her to you," said Winters, "and then you can judge of my temptation and my grief will not seem strange to you."

In silence he closed the little box, returned it to his pocket and rose from the table. "We will take the Battery Place gyroscope to my Brooklyn Heights laboratory," he said. "We can wash up, change into civilized togs; then I'll put the lichen under a 500-power microscope."

An hour and a quarter later young Galton stood in his cousin's laboratory, gazing through an eyepiece at a microscopic, white form, still in death. He caught his breath sharply. Imperishable beauty was there, the music of the spheres, all lost loveliness. The morning glory of the fire mists and weaving nebulae seemed to hover over the tiny white face, so still now as it swept toward the lands which the river of time would never again revisit.

Winters had left the room. Galton walked to the door and peered into the adjoining apartment. It was on the tip of his tongue to say: "I can understand your grief now. The woman of the lichen city was more beautiful than all the women of Earth, beautiful as a crowned queen, and I know that she will haunt me forever." But he did not speak.

Seated in a window box, overlooking the white buildings of lower New York, sat Ruth Brent. A spirit of joy danced in her dark eyes, dwelt in all the lovely lines of her face. The leader of the *Top* expedition was sitting beside her, crushing her fingers in his large hand; and their cheeks were pressed together. Silently Galton shut the door and tiptoed back into the laboratory.