

SUPER SCIENCE STORIES

25¢

THE BIG BOOK OF SCIENCE FICTION



VOL. 6

MARCH, 1950

NO. 3

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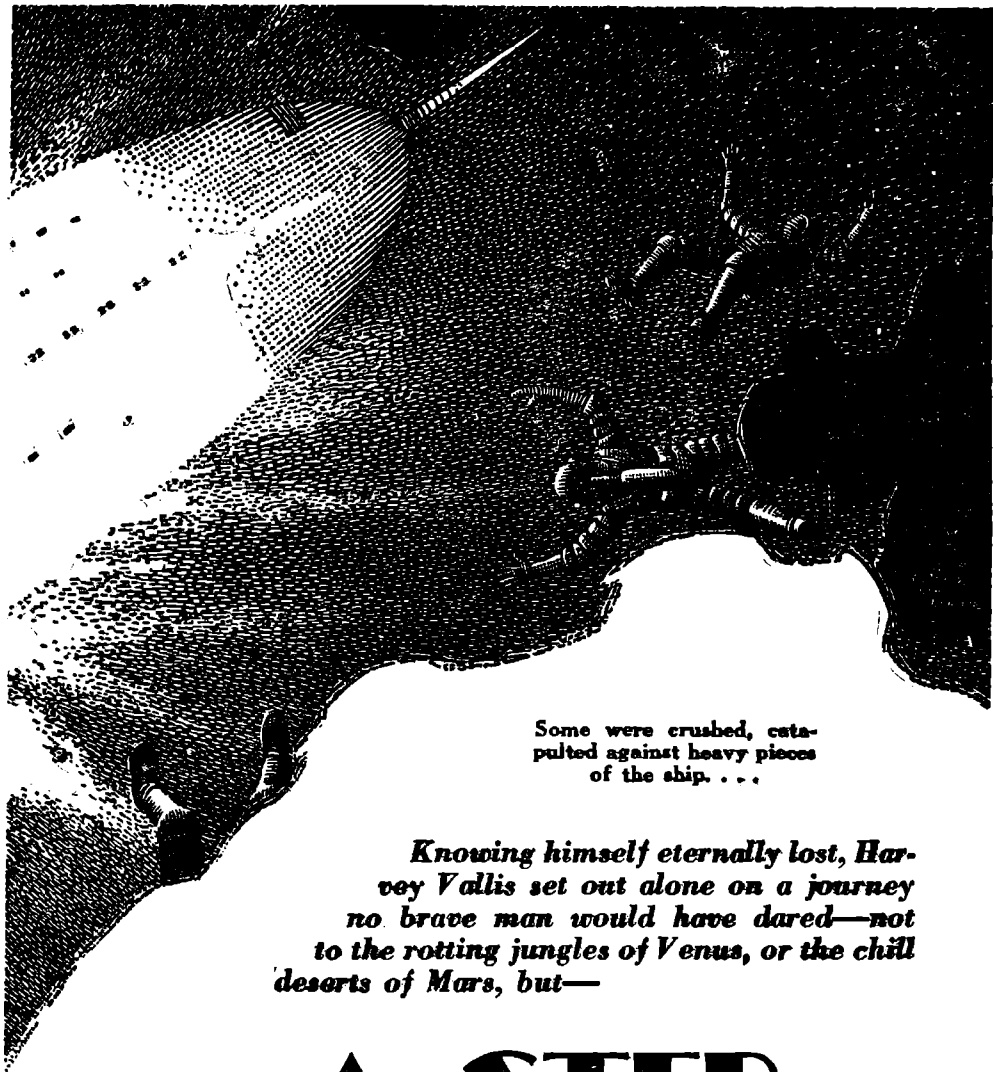
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Cover by Saunders
 Illustrations by Bok, Collé, Lawrence, Leydenfrost and Van Dongen

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Published 4-monthly by Fictioneers, Inc., a subsidiary of Popular Publications, Inc., at 1145 E. Valle Ave., Kokomo, Indiana, Editorial and Executive Offices, 205 East 42nd Street, New York 17, N. Y. Henry Blosser, President and Secretary. Harold S. Goldsmith, Vice-President and Treasurer. Entered as second-class matter at the Post Office at Kokomo, Indiana, Copyright, 1950, by Fictioneers, Inc. This issue is published simultaneously in the Dominion of Canada. Copyright under International Copyright Convention and Pan-American Copyright Conventions. All rights reserved, including the right of reproduction, in whole or in part, in any form. Single copy, 25c. Annual subscription for U. S. A., its possessions and Canada, \$1.50; other countries, 38c additional. All correspondence relating to this publication should be addressed to 1225 E. Valle Ave., Kokomo, Indiana, or 205 East 42nd Street, New York 17, N. Y. When submitting manuscripts, enclose stamped, self-addressed envelope for their return if found unavailable. The publishers will exercise care in the handling of manuscripts, but assume no responsibility for their return. Printed in U. S. A.





Some were crushed, catapulted against heavy pieces of the ship. . . .

Knowing himself eternally lost, Harvey Vallis set out alone on a journey no brave man would have dared—not to the rotting jungles of Venus, or the chill deserts of Mars, but—

A STEP FARTHER OUT

By **RAYMOND Z. GALLUN**

FIFTY miles from the great spaceport at White Sands, New Mexico, the approaching roads end in guardposts and barbed wire. But before that lethal circumference is reached, signboards warn: **RADIOACTIVE DUST. PROCEED**

WITH CAUTION. ARE YOU WEARING YOUR RESPIRATOR? WHAT DOES YOUR GEIGER COUNTER SAY?

Beyond the guardposts and wire, no sane man ventures on the surface without wearing radiation armor. The spaceport itself is reached by tube-trains. The tunnels in which they move are bored far beneath the poisoned desert, where the dust of countless rocket takeoffs and landings has made even the cacti still more grotesque and monstrous by disturbing their genes.

Lead, superheated and vaporized by a slow chain-reaction of the fissionable metals with which it is alloyed, is the chief constituent of the incandescent gases ejected by the atomic jet-motors of spacecraft. It congeals to a heavy, tainted powder, which, fortunately, soon settles to the ground, limiting the radius of its poisonous effect.

Within the restricted area, there are, of course, no towns left, and almost no buildings except the heavily-shielded structures of the spaceport itself, depots, hotels, and covered gangways by which passengers can enter the space liners without contact with the atmosphere.

Such, then, is the hell-guarded gate to High Romance. . . . But something of its essence reaches out much farther than the dust of mankind's greatest adventuring. Some might call it another, more insidious poison. Others, a stimulant, a tonic. To White Sands, life-hungry youth comes from far and wide, seeking a future on a frontier that can never be used up. But more certainly than from anywhere else, they come from nearby—from the ranches, the farms, and the little crossroad towns near the fringes of the circle of death.

For in such places, the call, the fascination, is forever present, and can never be forgotten. There, hour after hour, day and night, the incandescent trails of rockets, are visible. They are both awful and beautiful. They tingle one's spine with

a joy that is at the edge of fear. One's mind associates with them the names of places such as Vananis, Mars, or Finchport, Venus. Ah, yes—how sweet and rotten smells the jungle, in one's fancy; and how strange and thrilling is that desert world called Mars, where man cannot live without his oxygen helmet and his dome-cities, where once there was a great native civilization that destroyed itself, but where youth labors and dreams now, to build a smaller, and perhaps better earth. . . .

But all that is but a foretaste—a beginning. Beyond Mars, both newer and older, lies the asteroid belt—wreckage of a world that exploded, but that was peopled once, too. It is a wonderful, terrible region. Far beyond it lie Jupiter and his moons. As yet, very few rockets have ever gone that far. Then comes ringed Saturn. Then Uranus, Neptune, Pluto . . . Then the eternal and inconceivably distant stars. . . .

Is it remarkable, then, that there are scarcely any young men left in the little towns around the White Sands spaceport? The opportunity is close at hand. Always, men are needed. Whether they achieve satisfaction, or even the glory of progress made, or merely hurl themselves into the maw of a new kind of Moloeh, is a matter of viewpoint and chance. For out there are both danger and opportunity. Out there are swift death in many forms, incalculable riches, and gut-twisting strangeness. . . .

Few can stay behind. So there are empty chairs and saddles, and unslept-in beds in boyhood rooms. And the stories come back—of success and disaster. All this stamps itself into the local attitude of life. It is a hard attitude, that worships courage, and smiles a knowing and contemptuous challenge to those youths who seem to lack it.

Of all the stories, perhaps there is none quite as whimsical and strange, in its own

way, as that of Harvey Vellis. He was born, it seemed, to be the butt of bullies. That was only part of his ill luck. For what can anybody really do about being a skinny little twerp? Besides, he had a certain kind of mother. "Yes, Ma. All right, Ma," was about all he ever said to her. Some people thought that she was the kindest woman on Earth. But maybe she was a cruel, possessive tyrant. On the other hand, maybe she was just a frightened widow who remembered too well that her husband had joined the crew of the *Artemis*, and had died in a crash on the moon.

Harvey Vellis became a clerk in Mr. Finkel's General Store, in the little town of Dos Piedras, where he had been born. For a vegetative type of youth, this might have been all right, for Mr. Finkel was a kind, understanding man. The trouble was that Harvey was far from vegetative. The trouble, further, was that people who had always been around him, had drawn their own picture of what his soul was like. Their belief in that picture was so strong that they had made him believe in it too. They had never let him be himself.

Day after day, year after year, he heard the same challenge and the same joke, flung at him in one form or another, by one person or another. First it was by his swashbuckling contemporaries—big Dink Darrell was the best example—then, as they vanished into the space wilderness, by younger boys, even by tots. . . .

"Hey, Harv—when you blasting out? Next year, maybe? Think your Mamma'll let you?"

It is an old tale. The repetitious cruelty of it sits on the shoulders of its victims, a vulture, destroying not courage so much, but confidence. The laughs have a jagged edge. In the focus of attention from all sides, one becomes self-centered—not in a proud way, but in another way that makes one feel that, in all the world and in all history, there has never been another as

gutless and pink-livered as one's own self.

IT WAS doubly hard for Harvey Vellis, for all of his wishes and dreams belonged to space. How many books about Venus, Mars, and the outer planets had he read? How often did he fondle the quarra weed, dry and dead now, which he used as a book-marker?

A spaceman, who had picked it casually near the point of Syrtis Major, that strange, triangular depression thousands of miles in extent, near the equator of Mars, had dropped it as casually on Main Street in Dos Piedras, and Harvey, recognizing it for what it was from his booklore, had pounced upon it as a treasure.

How often had he sniffed its faint, dry aroma, as if to it clung the frosty pungence of dusty, dehydrated winds that no longer contained enough oxygen to sustain Earthly human life? Of such stuff is the fabric of romance woven. And it was to such pathetic trifles that Harvey Vellis clung. Echoes they were, from a great distance; and they touched Harvey as echoes of music touch the ears of a music lover, starved for what he needs.

Time went on. Harvey worked and dreamed. In his spare time he studied the blueprints of spacecraft and space armor, until he knew their structure by heart. And he tinkered with odds and ends of equipment, learning all that he could about things related to the distance that it seemed he could never reach. He even achieved a certain adjustment to his unpleasant lot. His cheeks forgot how to flush under the hazing; his response, instead, became a small, wry smile, and a shrug that hid some of the hurt inside him.

Death comes just as surely to those who live sheltered lives as it does to those who live dangerously, and it came at last to Harvey Vellis' mother. "I suppose you'll blast out, now, Harvey," she said to him near the end, not realizing the heavy handicaps she had laid upon him. "You

won't have to look after me any more."

Those were the words that she poured into the gulf of grief and disorientation that her passing meant to him. It was a mockery. And more of a mockery was the honest if contemptuous pity which he read in other eyes. People, it seemed, were no good to him, even when they meant well. For a week he kept to himself, fogged and lost.

There was one good thing about what his life had been like—perhaps. Frustration had been like the restraining of a steel spring, or the wiring-down of the safety valve of a boiler. It had built up the power of the drives in him, impelled them to push past fear and ruined confidence, toward what he had always wanted.

What he wanted was not entirely clear or simple. He was too naive and too full of dreams to aim quite practically. His goal was a vagueness. Out, somewhere toward the vastness, was as far as his thinking about it went—and that, certainly, was dangerous. Just what he would do to live, he did not know. . . .

He had saved up twelve hundred dollars. Passages to Mars cost a thousand. How was it that he did not simply go to the employment offices of the space lines so near at hand? How was it that, instead, he drove his old car to Albuquerque, and bought a ticket to Mars there? That, when he might easily have gotten a job, and saved his money?

The answer is easy and old. His emotions were ill, so he could not do things so directly. People that he knew would see him; they'd wonder, they'd laugh, they'd pity. They'd stare at him as if they had caught him trying to commit suicide. Maybe, in fact, what he contemplated amounted to the same thing. For him, the inept, helpless coward—when it was so terrible and wonderful out there. . . . No, he could never face those eyes that knew him. Before he felt that he would curl up and die in an agony of stage-

fright. It was better to slip away quietly, seek the shelter of anonymity on a strange planet.

Maybe, in all that he forced himself to do, there was courage of a sort. No human can live for years with a handicap or with fear without achieving a kind of courage.

He put his affairs in order as quietly as he could. Mr. Finkel pretended not to know what was happening, for that was the kindest way. In his heart he was both glad and worried about what Harvey Vellis was doing.

Harvey boarded the train for the short journey to the spaceport at midnight—the best time to slip away. There were many faces around him—mercifully those of people that he did not know. Hard, bronzed faces—eyes that had seen much that he had not seen—that took coolly what to him was so new and different. They were blasé and unruffled. Their luggage bore stickers from New York, London, Paris—Kaie-Yeel, Venus; Vananis, Mars. Among such company, Harvey Vellis felt like the awkward yokel that he was.

The girl beside him in the train smiled at him. Her blonde hair was cut in a long bob, and she sat casually. Her blue dress was elegantly simple. She was pretty, but not too pretty. She even looked a bit rough-hewn. Her eyes were gray. For a second they probed him, and he felt like an insect on a pin. He suspected, with the ready suspicion of the self-conscious, that all of his frustrated personal history was stamped in his face and figure for her to see, and laugh about silently, just as if she were one of those others who had always known him; and that he could never escape from himself with her, even for a minute. All of this was at least half so true. . . .

But the sophisticate must often play parts that mask a true understanding for a reason. The reason can be kindness. Or

It can be curiosity—especially in the case of a woman.

LILLETH THOMAS was both kind and curious about the people who traveled with her. It was an old need in her—the need of the rolling stone for quick acquaintance—especially when the rolling is not started by one's own desire to move, but by a parent's love of the strange and different. Lilleth Thomas had been dragged around by her explorer father, everywhere. Not that she minded much—she loved newness herself. But deep in her was that primal need of all women—permanence and stability. A vine-covered cottage, maybe in Maine, or perhaps California. . . . That she saw nothing of the sort—and in fact nothing of any permanent meaning to her—in the worried, thin face beside her, did not stop her from being kind. "Hi, friend," she said.

"Hello, miss," Harvey Vellis answered, feeling the first flash of companionship, a little of the release from self, a little of the velvet padding of enjoyment and romance. It was a golden net—a stepping into a dream that had never been real to him before.

"First time Out?" he ventured.

She shrugged, and did not lie directly. "There always has to be a first time," she chuckled.

An awful impulse to brag and lie and fourflush—to build himself up as an ad-

venturer before this girl, seized Harvey Vellis. He resisted it, not from reasons of honor, but from fear of being found out, later, maybe, when they were blasting off from Earth, and the black sky of the void was beginning to be visible to eyes that dimmed under the pressure of an awful acceleration. . . . Or was it too because a big hulk of a man passed him on the train—a spaceman that he knew? Harvey Vellis hunched his shoulders, and turned his face away, so that he would not be recognized, while the hulk with the glittering insignia passed by. Then he breathed again.

"But dad does a good deal of traveling," the girl went on. "He's sent me a few thousand photographs from just about everywhere. It's a kind of propaganda that gets under your skin after a while. You want to travel, too."

"Any of the pictures handy?" Harvey asked eagerly.

Lilleth fumbled with her purse. A moment later they were looking at color photographs—gigantic Venusian mountains, their peaks lost in the eternal cloud blankets; monsters that wallowed, slug-like, in vast marshes that corresponded to the Coal Period swamps on earth; men in vacuum armor, tramping over a Martian desert, where fantastically carven monoliths, fifty million years old, loomed against a purple sky. . . . Harvey Vellis' blood quickened.

"That's the kind of stuff that folks like us are made for!" he said fervently. The spell of strangers was upon him. He felt history, everywhere. What was happening, now. What had happened long ago. The civilizations that had risen and fallen. The far future. The universe . . . Maybe his own day was at hand. Good fortune and fulfillment at last. It was at least a wonderful illusion. It was good that he did not know. . . .

The train moved swiftly. Incident followed incident, in the pattern of anyone's first approach to a great spaceport. Presently, in the great waiting room, he was helping Lilleth Thomas with her luggage. His mind was full of wonder at each small detail of his surroundings. The white tile walls. The numbered exits to the various blasting-off platforms. The drone of the speaker: "Vananis— Gate nineteen— Vananis—"

They moved with the other passengers, across the floor in a long line. Up the shielded gangway . . . Harvey's senses continued to grab hungrily at every impression. This was the liner *Aries*. Even its airlock portals looked wolfish, suggestive of distance and power. Within, everything was a combination of compactness, luxury, and careful preparation for danger.

White was the predominant color here. Meaning cleanliness, and the precision of intricate machinery, functioning perfectly. . . . You could feel a kind of wordless poetry here. The contrast, the struggle between two sides of something. On one side, Nature, harsh, empty space, the planets, which, for ages had been symbols of the absolutely unattainable . . . And on the other side something that was harsh and wolfish, too—power, plan, design, shape, and strength—all to match and dominate fearsome distances and dangers. Here was the mind of man, thinking, studying—beginning to rule at last even the once-unattainable.

There was a little of the brassy taste of fear on Harvey Vellis' tongue, but not nearly as much as he had expected. For romance and companionship were like a velvet shell around him.

"The red lights are on, Lilleth," he said almost gleefully—her name and his had both come out in their conversation. "Fasten your safety belt. Just another thirty seconds more. Wait until we get out there, and see the stars of space. Wait till we reach Mars! It's a frosty place. The air pressure there is the same as at a fifty-thousand foot altitude on Earth. Everything's different—" He talked on, not lying directly, but hoping that she'd believe that he'd been there, seen the things he spoke about. . . .

The takeoff thrust began gently, but it grew and grew till even consciousness dimmed to the threadiness of a dream. But Harvey took it well enough. For him this trifle, this thing that millions of people had already experienced, became a pathetic triumph that gave him more confidence than he should have had. Mars lay ahead—yes—and he was ill-equipped for life there. But this was not the worst. How was he to know that he was to be hurled much farther than Mars, missing the red planet entirely?

It was already decided by a chain of cause and effect. In the stout shell of one of the *Aries'* atomic motors, there was a tiny flaw, almost beyond the power of the radar instruments that constantly checked every brace and plate and part of the space ship, to detect. In one of the bars of alloyed lead and heavy radioactive elements that served as fuel, there was a portion of metal where the mixture was too rich. Normally, there would have been no danger. But use that bar with the over-rich flaw at full throttle, and in mid-space, and things would be terribly different. . . .

But as yet this incident was fifteen days off.

CHAPTER TWO

Adrift In the Infinite

AS IT went up into space, accelerating toward the velocity that would enable it to glide on indefinitely, the *Aries* began to rotate on its central axis, like a projectile. And the rotation provided, by centrifugal force, a substitute for gravity in the rooms and compartments arranged around the central lightwell of the ship. The slightly curved floors of those rooms were all against the outer, cylindrical shell of the craft.

For fifteen days life went on, more or less pleasantly, as it does on any great liner, of sea or air or interplanetary space. There were games, music, dining, dancing, making love. . . . Harvey walked with Lilleth, and, conforming to pattern, fell for her hopelessly.

The best was at the beginning, when he did not know that she was not a green-horn like himself. The worst was when the truth about her came out—when people aboard the ship said things to her:

"Hiyuh, Lilleth? Is Venus too small for you? What do you do, *live* on these rockets?" A young ship's officer said that. A sleek, middle-aged woman added her bit: "How was it there in Kobiláh, in the jungles, Lilleth? I got your letters, but you never finished the story about that *tus* plague. My dear, it must have been terrible. . . ."

Such knowledge, to Harvey Vellis, was hopeless separation from her. It brought on a hollow ache, and an exposure, again, to the rough edges of truth. But in such things Harvey had become toughened by long experience. He'd had too many disappointments in his time. Lilleth looked at him and smiled kindly. She might have explained things to him as to a child—that there were other friends who needed her time, too. But he only shrugged, and grinned back. So it wasn't necessary. He

accepted his position as one of the lesser members of the crowd.

But something sheltering was gone from him, and he felt weak and clumsy before harsh reality. He began to see his motives more starkly—his running away toward what he hoped was a new beginning of life—the thing that many people try to do, in spite of the old platitude that nobody can run away from himself.

The days passed. The stars rolled around the ship, as the metal shell rotated steadily. In that rotating procession, Mars swelled to a beautiful, mottled globe. And then came the moment when small corrections of direction of flight had to be made, while at the same time the speed of the ship had to be checked somewhat, for the time of landing on Mars was not far off.

So the forejets roared and flamed, hurling their dazzling incandescence, with a steady sougning, at full. . . . And then it happened. There was a hissing, roaring, rending sound, and a sense of impossible motion, as the ship began to spin, end over end, now, impelled to do so by the flood of fire that burst from her side. Alarm sirens hooted; airtight doors clanged; the pressure of the air around Harvey Vellis kept dropping, hurting his eardrums, deadening sounds, making his lungs feel tight.

Into Harvey Vellis stabbed the jagged knife of pure terror, as he was hurled across the lounge. But he was not the only one to be frightened, for the strongest of men could feel open fear now.

Lilleth had been among the crowd in the lounge, too. He saw her form hurtling among the others. Then he hit the wall with a solid thump. After that, most impressions were vague. Once he yelled, "Lilleth—I'll—I'll—" But she answered back, her voice trembling, "I'll take care of myself, fella!"

Against the wall stood a spacesuit, lashed into place. For a dragging second all that he saw was the legend in big white

print: LOWER BODY INTO LEG UNITS. PULL RED TAB UPWARD TO CLOSE ZIPPER SEALER. PUT ON HELMET. TURN SEAL SCREWS AT THROAT. OPEN OXYGEN VALVE AT LEFT SHOULDER.

His shaking fingers seemed slower than they were. Lilleth and some other people were at his side to help him, before he was finished. She fastened the last screw at his throat. "There, son," she grated, a little contemptuous anger showing through her own fear. "Now jump!" Her voice came to Harvey through his helmet radio.

There was no time to jump. For then the final blast came. Harvey was hurled out of the broken lounge. Out, out, and out, toward the rotating, sardonic stars . . . Some people were crushed, catapulted against more passive pieces of the disintegrating ship. Some spacesuits were torn, so that the air in them spewed out, and the blood in the flesh within began to boil away as the pressure dropped to zero.

Man's body is not made for outer space—for the beat of cosmic rays, and of hard ultra-violet light that can kill when there is no adequate shielding; for the absence of weight, that feels exactly like falling. It is only the human mind that has any connection with, or dominance over, such things. And sometimes the mind itself is broken in that awful abnormalcy.

For Harvey Vellis' fear, then, there was ample excuse. There was an excuse, too, for the screams that came to his ears through his helmet phones from other people. But for him the fear was special, for he had been rated a coward. His spacesuit protected him from cosmic and other radiations, and he was breathing good air. But his feet, in heavy space boots, kicked against the awful void, beneath him, all around him. It was like a dizzying height, infinitely extended, infinitely terrible. All of his reflexes were wrong. He could not swim, fly, or walk. He was in a far worse position than any fish out of water.

He tried to scream, but his horror was too great. Only a ragged squawk came out of his constricted throat. He clutched at anything he could reach, trying to suppress that awful sense of separation from everything. Thus he got hold of another drifting, space-suited figure. And another . . . One was a little Mexican steward. The other was Lilleth Thomas. Both figures were limp. They had been hit by flying fragments.

One thing more Harvey did. Maybe the impulse deep behind it was the desire to prove himself a man. Mostly, though, it was just clutching reflex action, and an instinctive urge to seek shelter. He grabbed at a great bale that hurtled past, blown from the hold of the *Aries*. It was fabric-covered, and tied with cord. Somehow he managed to tear into the fabric, and get under it, and draw the other two forms in after him. To him it seemed safer there under the fabric; and the great bale was something to cling to. Futile, of course . . . He knew it right away. This was the end. The end of his wild lunge toward a better life.

He did not realize that hiding himself and the others in the bale was the worst thing he could have done. He could not think reasonably. When he fainted, he thought it was death. . . .

HE DID not awaken for hours. By then the life rockets that had not been destroyed in the blast of the *Aries* had already landed on Mars. They had picked up all visible survivors. The rescue ship from Vananis had likewise come and gone.

Harvey regained his senses gradually, with the prayers of the little Mexican steward to his matron saint droning in his earphones. The two other spacesuits were still in contact with his own. He felt one of them squirm a little. He turned toward it, and some dumb and hopeless curiosity caused him to peer through its face plate.

There he saw the features of Lilleth Thomas. They were ghastly pale. Her eyes were very big. Her lips trembled. There were beads of sweat on her cheeks.

"Are you all right?" he stammered thickly.

Her lips moved stiffly. "I guess so," she answered hollowly through the phones. "I was knocked out—I think. Something hit me across the shoulders. No harm done to my spine—or anything. At least I can still move my toes. I'm all in one piece—if that makes things all right. Only—only I'm scared to death. . . ."

Her words ended with a choking sob.

It was then that the little Mexican grabbed hold of her spacesuit and clung to it. "Ayudame!" he pleaded. "Help me, lady! I know you are strong and smart. I've heard the stories. You are Lilleth Thomas, daughter of the great explorer. Ojalá—perhaps you might know what to do. But no—not even God can help us now. I am José Eugenio Palmas Alvarez, and I've got to die out here—slow. . . ."

Joe Palmas was not visibly hurt, either. Like Lilleth, he had been hurled in the same direction as whatever it was that had hit and stunned him—hence the force of the blow had been lessened. But the scare in his face was an awful thing to see. His voice was a squeaky rustle in that terrible stillness.

The stars all around were bleak, hard

pinpoints in the black distance. And the small, rusty crescent that was Mars was shrinking away to sunward. Harvey and his companions had passed Mars, and were hurtling on, outward, toward that region of the wreckage of an exploded planet—the asteroid belt. Around them, moving with them in a gently spinning swarm, were the fragments of the *Aries*, its cargo and appointments.

There was no hope of being found or rescued now. For Harvey there was only the thought that, ten thousand or a million years hence, someone might discover their spacesuits, with their mummified bodies still inside. For to all intents and purposes they had been buried alive—in an unbreathable vacuum many millions of miles deep. When the air-purifiers in their suits gave out—

Could Lilleth Thomas be blamed so much, when now in her own terror, the fairness in her gave way, and she began to hurl wild, half-hysterical accusations? She was strong and just, but human.

"It's your fault!" she shrilled at Harvey Vellis. "We'd all have been seen and rescued, if you hadn't hidden us in this bale! You greenhorn fool—you—you—" She stopped, as if realizing suddenly that it was she who had spoken like this. "Oh—I'm sorry! I didn't mean— How could you know? How could anybody know?"

They were all clinging to the bale—half

inside its fabric wrapper and half out. Harvey might have remained unaware of the result of what he had done, if the girl hadn't spoken. But now he knew. Her words went stinging through his mind like bullets. Should he mind being accused and called names by her, now? Should such trifles matter? But they did matter, as truth always does.

He might then have gone hysterical, as he thought he must. But there was far more strength in him than he realized. It was not courage that he lacked, but confidence. He was used to blundering, feeling the fool. That kind of experience had hardened a part of his nature, and that hardness was courage.

All that they still had to lose was life. That loss seemed inevitable—if they succeeded in prolonging life, it seemed only a prolongation of mental torture toward madness. Still, Harvey Vellis could not quite accept such logic. He was like a cat responding to the instinct of self-preservation. But he was also a man trying to think of a way to make some amends for guilt. Without the latter, he might have been wholly animal, not trying to plan.

He grew angry. He growled too—in self-defense, for once, hurling his words against her far greater experience. "All right!" he snapped, his frayed nerves making his voice quiver. "You needn't try to take anything back! I heard what you said!"

For a minute he looked around them at the drifting wreckage. It was a fantastic display of things that were utterly out of place in the depths of space. There was a milling cloud of beautifully upholstered chairs and other furniture, fragments of metal plating, crates, boxes, bits of wood and paper . . . The wood, paper and fabrics were already turning black, as if they were being charred. Not in the ordinary manner, by oxygen and fire, but by the awful dryness of space, which, aided by the sun's fierce rays, unshielded by any

atmosphere, was sucking the oxygen and hydrogen in the proportions of water, out of all organic substances, leaving behind the black carbon.

Hurry, he thought. Hurry, hurry . . . Maybe it's a matter of time. Oxygen to breathe, first, or the apparatus to provide it. Then water, if it can be obtained. Then food, before it becomes inedible. With luck, maybe we can last a week. Or even a month.

HARVEY was like a man doomed by an incurable disease, hoarding his last few days. In fact, to collect and hoard was part of the driving impulse in him.

There was no great planning necessary for what he had to do. It was only the naive audacity of it that was strange. For a moment more he searched among the swirling wreckage for a beginning point. Then, with quivering, clumsy fingers, he began to tear cord from the great bale. He tied the pieces of cord together, and left one end attached to the bale; the other end he tied about his middle. Then, desperate to get things done, he leaped.

He did not leap wildly, without purpose. His theoretical book knowledge about how material objects behave in space was complete enough. Only his physical actions were clumsy.

He shot toward a great fragment of the ship, drawing the cord after him. He clutched at the fragment, found an airtight door broken from its hinges; but he could see that it was not beyond repair. There were two richly appointed staterooms inside, and part of a corridor. The fragment of the ship was rotating slowly, but what did that matter, here, where there was no appreciable gravity—no up or down? The artificial gravity once produced in the *Aries* by the centrifugal force of its rotation was lost here, for the arrangement was wrong. The fragment was only pivoting lazily upon its own center.

In an emergency-supply compartment, Harvey found that ever-present testing device, the Geiger counter, used wherever there was any danger that atomic energy might go wild. After the explosion of the jet-motors of the *Aries*, much of its ruins might be tainted—"hot" with deadly radioactivity. Here, now, he watched the tube of the counter for the little flash, that, in the airlessness, where no sound could exist, replaced the familiar clicking. Only once it came in a minute, and that was not enough to be dangerous.

Now he went back to the unhinged door, and pulled the cord. Easily, in frictionless space, the great bale that harbored his two friends came toward him, bumping against the chunk of the wreck. With flying awkward hands, he lashed it down. Then he prepared himself another, even longer cord from the lashings of the bale, tied it to his middle and to a torn piece of plating on his island of safety, and leaped again, this time toward a great cylinder of oxygen. The Geiger counter he carried showed it to be untainted, so he grasped it with his legs, locked his feet around it, and drew himself back to his chosen perch, by gathering in the cord toward him hand over hand. As with the bale, he tied the cylinder down.

The process was repeated again and again, furiously. Often he had to discard things that were too "hot", but his hoard began to grow. There were great flasks of water, cases of canned goods, furniture, crated machines meant to be used on Mars—the first bale actually contained, folded up, a huge, flexible, plastic dome. In the thin air of Mars it could be inflated, supported by the pressure of the air of normal Earth-density inside it—used as a habitation or a warehouse.

Harvey Vellis labored like a demon. He labored awkwardly, like a person seldom required to do violent physical work, straining himself far more than necessary. But his conscientiousness was dogged and

savage. Industry he had always had. And now, in it, he found a certain balm. It is always that way. Work diverts attention from disaster, releases tension. And bit by bit, as he became more adept at what he was doing, a little confidence—the thing he had always lacked—came to him. It was tragic that it should come so late, when he seemed inevitably doomed, no matter what he did. Still, it was something.

At first he had just an audience. Joe Palmas, the little Mexican steward, gawped at him as at some mad fool. Lilleth Thomas stared at him, too. At first her gray eyes had a derisive bitterness, then a speculative puzzlement. The sweat dried on her cheeks, and she looked almost pretty again. Almost, she smiled. Almost, a little of that old dry humor came back. Did she say, "What are you doing—trying to grow up, son?" No, but she thought it gently, and with a chip of awe. And somehow, in spite of everything, the awe was a comfort to her.

"A new game?" she said into her helmet phone. "May I play?"

The sullen Harvey Vellis did not answer, but just the same she found cord for herself, and imitated him. Joe Palmas, his dark face very grave, followed suit, in his plodding, precise way.

For hours, maybe days—for how could you tell out here where the sun seemed hardly to move?—the toil went on. Inside space gloves, hands developed vast blisters which went as unnoticed as the ache in muscles pushed to the limit of their capacity. Of course three humans could never have done so much work on Earth, but here there was no gravity.

Lilleth Thomas even tried at last to lighten the situation with some scraps of humor. "We make a big bundle and take it to market," she chanted almost gaily, sweat again coursing down her cheeks, but this time it was the sweat of toil. "What do we do with all this stuff?"

"Try to live for a while!" Harvey Vellis snapped back.

"Sure—I know. That's at least partly a good answer," she said almost contritely. "Only—" But there she stopped. They were going away from the sun—they were powerless to turn back. They might even jury-rig a jet-motor. But they could never make it drive this great, crude, spherical bundle that they were building around the two-room fragment of the *Aries*. It lacked utterly the perfect balance of a ship of the void. It would never go the way they wanted it to go. So they'd hurtle on, perhaps through the mysterious asteroid belt, to be smashed by flying fragments; or perhaps they would pass it, to freeze out there in the awful darkness, maybe returning sunward years later, when the gravity of the sun pulled them back, locking them in an elongated cometary orbit.

But Lilleth Thomas did not wish to talk of such things. It was bad enough to remember.

CHAPTER THREE

Terror Belt

AT LAST the task of collecting flotsam was almost finished. It was then that Lilleth Thomas took up action of her own. "Come on, Joe," she said to the Mexican steward. "Our great master of ceremonies doesn't like us. But we could maybe fix the door of the place where we're supposed to live."

She was not unhandy with tools, and the latter were among the items they had collected. Through the tunnel left in the packed load of stuff, that completely enveloped the piece of the spaceship, they crept to the door, and proceeded to fix its hinges, and the packing around it. So when Harvey came through the tunnel, trying to drag at one time a crate of charred grapefruit, a small atomic stove, a cylinder of compressed air, and a small

air-purifying machine, still in its box, and intended for some remote human encampment on Mars, the door was ready to be airtight again.

Harvey Vellis' face, beyond the window of his helmet, was so haggard and sweat-streaked now, that it hardly looked human. "Come on, you two," he growled. "Don't gawp. Help me with the other stuff."

So they did. They brought in cylinders of water and oxygen; they brought in more food. And at last, panting, Harvey closed and bolted the door. He bolted it with furious haste, as if there were some terrible enemy just outside, in hot pursuit. A thing that he had to shut out. But it was only the terrible, harsh stillness of space, and the sardonic stars. Harvey was reacting against the things he had feared, though he had thought he would love them.

Again Lilleth tried to inject a bit of humor into the moment. "A nice two-room apartment," she chuckled. "I used to dream of a vine-covered cottage, in Maine or California. Oh, well, this is all right too. We've even got lights and a stove. Boy! Are we riding space in luxury! The lights still burn because each lamp has its own atomic battery. It's almost like home here!"

But somehow her words, and her mild, kidding sarcasm, grated against Harvey Vellis' raw nerves. "Oh," he growled. "You want a real apartment, do you? Even a house, with all the comforts of home, eh? What do you expect? Don't you realize our position—yet?"

He'd never been rated a grouch. And, yes, he knew what was the matter with him. It was what space, and the dark future, did to people. It was his guilt for their being in their present position, and his helplessness to really right matters—especially for Lilleth. It was his feeling of inadequacy and inequality before her. It was his desperate wish for other cir-

cumstances, in which he might try to give her all that she wanted. . . .

She understood some of how it was with him. It made her feel tender toward him. But his awful seriousness exasperated her.

"You know darn well that I was just joking!" she stormed. "That ought to help us some—if you could only see it! You've done fine, Mr. Harvey Vellis. Now just simmer down!"

He looked startled and ashamed, for there was even a little sob in her voice. "Sorry," he mumbled. "Only—well—skip it."

"Skip what?"

"Nothing. Except, I suppose, you ought to have things like that. A home. A place for kids. Any girl—" He was down on his knees on the floor, releasing compressed air from a cylinder with a wrench, so that the sealed-up rooms would have an atmosphere.

Lilleth looked at him. Oh, gosh—why did people yearn for things most, when they were most impossible? Cockeyed human nature! And about Harvey, here—he looked such a twerp, and yet he struggled so hard. Lilleth Thomas was confused.

Now he had the air-purifier mechanism out of its box. He set its little atomic motor going. There was a cartridge in the mechanism, containing a special set of electrodes. Till it burned out, it could split up the carbon-dioxide that lungs exhaled, setting the oxygen free to be breathed again.

Lilleth forced a small, hard laugh. "Me with a home?—nonsense!" she said. "I'm a drifter."

But for a second his glance at her was both stern and very soft, as if he knew that she was lying. It was a wrong thing for him to do to her—make her yearn more and more for the impossible.

"Listen, Pal Harvey," she said. "You're all fizzled out. Go into that stateroom. tie

yourself to a bunk so you won't go drifting off, and get some sleep. Take Joe with you."

For once, he grinned. "Not until I get out of this spacesuit and chew on a grapefruit," he answered.

"Not any more than a grapefruit," she told him. "You know that the space-sickness is coming, don't you? Lots worse than sea-sickness. Lack of weight does it, after a while. The nervous system gets disoriented. The lymph-glands bog down before they adjust—and in some people they never do. The mind is disturbed—as if being adrift in space isn't enough. Me—I feel a bit queasy already. . . ."

Harvey only nodded, grimly. Joe Palmas, having removed his space armor, was clinging to the wall. He had begun to pray to Santa Guadalupe again.

Harvey and Lilleth punched holes in two grapefruit, and sucked the juice out. It was the only practical way, for they

never could have put the juice in a glass; it would have globed out and floated gently away.

As they sucked on the grapefruit, Harvey and Lilleth somehow fell into a whimsical conversation.

"I wonder what the asteroid belt is like," she mused. "Really."

"A world blew up," he answered. "One as big as Mars—and inhabited by beings that weren't men. It happened maybe fifty million years ago. You know the theory of the structure of planets. On the outside are the lighter materials—air, water, lighter rocks. But during the molten stages of a planet, when it's new, most of the heavier materials sink naturally toward its center—forming spheres, or layers in order of density. Rock on top, then a lot of iron and nickel. Then the heavier things, thousands of miles deep, near the center. Gold, lead, osmium, uranium.

"On that planet, according to somebody's theory, a pocket of Uranium 235, somehow almost pure, and unalloyed with the more stable Uranium 238, which is generally far more common, began to form, growing progressively more pure, more dangerous. If you get together a sufficient mass of U-235, the stray neutrons speeding through it become concentrated enough so that a spontaneous chain-reaction is set off. That such a relatively pure mass was formed was probably a freak—because it hasn't happened on any of the other planets. It must have happened quite suddenly, perhaps under the influence of a quake or volcanic action—no one can really know just how. But it blew that inhabited planet beyond Mars apart—exposed its insides—all the rich and the dangerous metals that are seen only in relatively small quantities on the surface of large worlds. Treasure—gold, of course, in huge amounts. And platinum, silver, radium. If it means anything. Stuff still almost untouched. . . .

"Treasure—too much to count—"

UNCONSCIOUSLY, Harvey Vellis was trying to build up romance to push away the shadows a little, to gild the dark facts. But what he had said of treasure was no exaggeration.

Lilleth carried the picture along. "Yes, I know," she said. "Even pop hasn't been out there, yet. And that's saying something. The asteroid belt was visited for the first time only about two years ago. There are a few men there now—beginning to look things over for the exploitation of resources. But I saw some pictures, somewhere. Some parts of the belt suggest the wreck of a spaceship. Things float in it besides rock and metal. Cornices of buildings. Machines. There's more archaeology there than even on Mars. It's supposed to be the strangest region in the solar system."

She paused. Trying to create a sense of glamor about the asteroids wasn't easy. For all of that region was deadly, and it was so huge that the few thousand men who had gone there hardly mattered, as far as population went. How could you find any of them? Or how could they find you? To find a special grain of dust in a cornfield must inevitably seem easier.

Lilleth and Harvey broke up the conversation at last. The men took one stateroom, and Lilleth the other. Harvey Vellis slept a deep, uneasy sleep, shot through and through with feverish nightmares. Sometimes it seemed that childhood acquaintances of his were hazing him again—laughing at him. Especially Dink Darrell, with the huge body and the booming guffaw.

At other times it seemed to Harvey that he groped through endless cobwebby distances, while the whole universe tumbled around him, and the awful space vertigo hammered at his stomach and head. . . . And it could hardly have been any better for his companions. . . .

It was like that for days, certainly. Harvey Vellis' wristwatch was not now

covered by the sleeve of his spacesuit, but he hardly bothered to look at it.

They all came out of the sickness gradually. On the small atomic stove, Harvey warmed some canned soup in a small sealed pot. The liquid was transferred by steam pressure through a tube to flexible plastic flasks, which are part of the regulation equipment of all space-rescue kits. You squeeze the flasks, and the liquid, that you cannot pour where there is no weight, is forced into your mouth.

Lilleth went around straightening things in the two rooms. She did not walk, she floated, shoving herself from wall to wall.

Harvey said, "You look domestic."

Joe Palmas actually laughed.

And Harvey felt that old pang of guilt, and the strange wish that he could give Lilleth what she wanted for the little time that remained to them. A bit of hominess could soften the harshness of the cold, unfriendly stars. . . .

That was why, when she said absently, "I wish we had a chessboard," he closed the airtight doors of the two staterooms, so that the passage and the door outside could be used as an airlock, and went out to search among the hoard of stuff they had collected. He found chess equipment easily enough, in a drawer of a table from the game-room of the *Aries*. He also brought a phonograph and records—of use on spacecraft because radio and television programs do not easily reach as far as the ships go. Besides, he found some steaks, still palatable since they were in a sealed chest.

"Harv, you're nuts—you're absolutely nuts!" Lilleth said. But they cooked a steak, and anchored it to their plates with special clamps, and learned to eat it with pincers and surgical scissors. They played chess, gumming the bottoms of the pieces, and played the records, and some of the illusion that they wanted came to them.

More days passed. They read, they slept. Until Joe Palmas announced, nod-

ding toward a circular window: "I see some specks up ahead. Lots of 'em in a little row. Maybe we live some more—maybe not, eh? But so far I eat good. Like they say in Guadalajara—Belly full, heart happy. *Barriga llena, corazón contento . . . Verdad? . . .*"

Maybe that was all there was left, but Harvey Vellis wasn't ready for it. You could call it fear, or whatever you liked. He just wasn't ready, and he didn't want Lilleth to be ready, either. He'd been thinking about it for a long time.

Nor was Lilleth a fatalist. "So we're catching up with the asteroids," she said. "We could get into spacesuits, and try to rig a jet from the spare supplies. We can't make it work very good, but maybe we could reduce speed some—lessen the danger of a crash. Come on, Joe—you too—"

She was cool, alert, and ready, then. She was the girl who had nursed victims of the plague on Venus. Harvey felt proud of her. Maybe he even guessed that she was proud of him. It was a great thing to feel. They had a job and a viewpoint to share, at last.

So, again, the three of them were furiously busy, on the outside of the great bundle of things from the wreck of the *Aries*. They broke out a spare jet from its crate. After six hours of toil, they had mounted it crudely but firmly, by clamping it between two great crates that contained machines, and wiring it into place. Further, they had bound the huge bundle more firmly together, so that it would not be scattered by the kick of the jet, by running wire around it in every direction. Close to the jet mounting, they placed thick sheets of lead, to shield their hoard from radioactive contamination. Then they were ready to fire.

EVERY time the thin line of luminescent specks, that marked the position of the nearing asteroid belt, came into view as the bundle rotated,

Harvey fired the jet, by remote control through an electric wire, from beneath lead shielding several yards away, while his companions crouched beside him. Each burst was a great plume of blue-white incandescence, whose temperature approached fifty thousand degrees.

There was of course no sound in the vacuum—only a quiver in the great bundle, and a wavering of its rotation. Time and again, as the hours passed, the rotation changed both direction and axis under the thrust. No one could have told how erratic the movement of that great mass of material became, across space. But it was jerked away from the vicinity of the radiation-tainted wreckage that Harvey and his companions had left adrift. And one thing was fairly certain—the velocity of their approach to the asteroids, a matter, originally, of many miles per second, was dropping off fast.

"They're getting bigger, though," Lilleth said. "We must be coming into the thickest part of the belt. There's one of the big ones—you can see its shape! Not round, like a real planet, but jagged, like a broken hunk of rock! Harv—maybe we'll have a little luck. Some kind of break—"

Funny how easy it is to start up optimism in people.

"Maybe so!" Joe Palmas said. "We're coming in with a steep slant—going the same direction as the asteroids on their trip around the sun, and it looks like maybe almost the same speed. Nothing going the same speed and direction as us can smash us up, huh? Keep the fingers crossed. But it looks like *buena suerte*, no?"

Good luck. Yeah. . . . Maybe Harvey Vellis had some of it coming to him for once in his life. But maybe it was just another sorry joke. For what good is it to be stranded on an asteroid, one of a great scattered ring of broken fragments five hundred million miles across, with the

sun at its center? Talk about one's chances of being rescued from a desert island on Earth, say in the 19th century. Here the chances must seem infinitely slimmer.

But somehow the faces of all three castaways were beaming. That's human nature, again. Put people in a really hopeless spot for a while, and then give them just a faint ray of hope, and see how their spirits come back, even though their situation is still more or less hopeless.

A few tense, eager minutes passed, while no one spoke, and the belt loomed nearer.

But finally Lilleth had to talk. "We're gonna miss the big one, you guys—it must be anyway twenty thousand miles away. But we're going almost exactly toward that smaller one, there. You can see nearly every detail of the rocks on it. It must be close. It's maybe two miles long, and a half-mile thick—just a big, white chip, torn out of the middle of a planet, airless, now, and not good for much. I'll bet it hasn't even got a number in the astronomer's books, much less a name—but, boy, does it look good to me!"

The enthusiasm of her voice had an edge to it, which Harvey began to recognize. Another side of possible space hysteria—distorted values and viewpoint. He grasped Lilleth's plastic-gloved hand. "Easy," he warned. "Take it easy—"

Her expression became surprised, then awed, as at a narrow escape. "Yeah," she mused. "Funny—I was as excited about a dead chunk of rock as I once was about finding my first four-leafed clover, when I was a kid. Back in Minnesota . . ."

She caught herself without being prompted. Thoughts of an old home could lead to nostalgia here that might make one raving crazy.

Joe Palmas spoke up, now. "Three long cords, we need," he said. "Tie 'em to the bundle of stuff, and to us. Then jump, same like we did before. Land.

Pull the stuff down to that asteroid . . .”

Several minutes later, they had accomplished all of this. Light as feathers, they landed on porous rock, after a long, slow leap. They were on a kind of plain, near the mid-section of the asteroid, which was large enough to have a barely perceptible gravity. In response to their tugs on the cords, the huge bulk of equipment and supplies that they had gathered drifted toward them, and came to rest like a slightly underinflated balloon.

They took a moment to look around them. The plain was littered with other lumps of rock that once had been drifting free in space, but which had come to rest, here, drawn by the tiny gravity. In fun Joe picked up a rock, that on Earth would have weighed twenty tons, and hurled it. It did not even fall back. Joe flexed his muscles and grinned.

One rock looked like the capital of a pillar. It was obviously carven. Near it was a blackened, dried thing, fifty million years old, but quite well preserved, considering. Human? No—there was no resemblance, except that it must have been a two-armed and two-legged creature, and intelligent. You couldn't be sure whether it had had a face or not, it was that different.

Somehow it had managed to escape disintegration in the awful blast that had ended its world. Maybe many of the bodies of its kind had, for the surface of

that planet might have broken up in great chunks, which had simply been hurled out into space, with their terrain intact. Near the body were some blackened fragments that might have been vegetation. And the body wore both clothes and beautiful golden ornaments.

Harvey bent down and touched the pale blue fabric, that looked like silk. “It must be of mineral,” he said. “Anything like ordinary cloth would char out here in an hour.”

No one commented. Joe Palmas just picked up the body, looked for a moment at a golden thing attached to its garment—it might have been a timepiece of some kind, and he was partial to timepieces. But now he muttered a brief prayer under his breath, glanced questioningly at his companions, received their nods, and hurled the corpse far into space.

CHAPTER FOUR

One Foot On a Star

IT WAS a full minute later before Lileth managed to smile. “Well, Harv,” she said. “Here we are, marooned on an airless hunk of stone. Want me to tell you what's in your mind? And how long do you think we can last—six months?”

He grinned back. “Depends,” he answered. “If we can civilize space in the raw, here, just a little, to keep ourselves from going bats—” His gaze was gentle.

She knew what he meant. A livable home for their last days. Some slight compensation for the house in Maine or California that would never be. . . . He didn't have to say it. He could even have yelled it in fury. The devotion of it still would have spelled love. . . .

She felt tender toward him. "Thanks, Harv," she said gratefully, seeing no twerp at all, now. "It's the same with me—for you. I wonder if we could make a cleric out of Joe?"

In another moment, they were as furiously busy as they had ever been. They began sorting supplies, separating them into categorical stacks.

It was strange seeing Lilleth's small form carrying huge loads. "I'm better than twenty stevedores," she laughed.

Now they unbaled three huge plastic domes, fitted each with an airlock, drew one over each of three separate stacks of supplies, and inflated them with air from many cylinders. They joined the domes by means of prefabricated passageways of similar plastic.

Joe was about ready to stop working, then; but Harvey, now inside one of the great bubble-like shelters, and out of his space armor, had found a brush and opened a can of paint.

"Good night, Harv—what are you going to do—label everything?" Lilleth asked.

"Just in a general way, so we can find what we want," he answered. "Too bad we haven't got shelves for some of this stuff."

"Hmm—still methodical, I see," she said. "It's a wonder you haven't thought of a hydroponic garden under a dome, like they have on Mars. The plastic is more transparent than glass to visible light, but it cuts off all dangerous radiations. And I've noticed that tins of seeds were included in the cargo of the *Aries*. Meant for Mars, of course—"

She was kidding. But he didn't take it

quite that way. "Maybe—" he muttered. Then a wild optimism seized him. He considered. "We've got a good deal of water and air," he said. "Besides, a hydroponic garden, with some people to breathe its air and supply carbon-dioxide to the plants, doesn't use up its original quota of air and water. At least, not very fast. It can be almost self-contained, like a well-balanced aquarium. Then too, there are certain pieces of apparatus among our equipment—also intended for Mars. Some rock crystals contain water, which can be extracted. And even space isn't completely empty. Quite a few oxygen, hydrogen, nitrogen, water, and other molecules that have escaped from the atmospheres of planets, are floating in it. There are ways of attracting them—slowly. And collecting them. If we can ever set up the apparatus—"

Later, as if it were only a bubble, and not tons of metal, they carried the great fragment which had been part of the *Aries*, and which contained the two rooms, and set it up against one of the domes. By means of a tunnel-section of plastic, they attached it.

It was the very lightness of things that exhausted them—it encouraged them to work to the limits of their strength, as if the real need, in itself, were not enough. And they were still clumsy—always exerting too much force for a given task, always having to exert more energy to check the first overstrong impulses of their efforts, they never seemed to notice the tiring—at first. It was when they relaxed a bit that the weariness hit them.

The asteroid was rotating slowly, the axis along its greatest length. Now, when they had their encampment tentatively in order, the sun disappeared behind the western edge of the plain; and like a knife-blade turning over, the side of the asteroid that had been in daylight was plunged into Stygian darkness—except for the glow of the atomic lamps that had been set up

in the dome where the castaways were, and except for the cold blaze of the stars.

And, perhaps unwarily, Harvey Vellis gave himself up to an illusion—that Out, space, other worlds, were the glamorous things that he had wanted them to be. It was fulfillment of a sort. He was a full-fledged man of space, in his own belief, now, needing to feel no inadequacy in anyone's presence. He was aware that his girl knew it, and was proud of it. There was just one big defect—eventual doom when time and space had their way with them—when their irreplaceable supplies gave out or wore out. But Harvey Vellis did not think of this so much, now.

Lilleth and he had removed their helmets. He grew bold. "Honey," he asked, "is it so bad—being like this?"

She looked at her little, homely, thin-faced man, and if she lied at all to reassure him, she did so without hesitation. "I feel at home already," she answered.

He kissed her. Joe Palmas stepped discreetly behind some boxes.

Harvey went on: "Considering uncertainty and shortage of time, honey, do you suppose it would be all right to do what you once said, about Joe?"

"Maybe we should," she answered. "Things like that often become necessary on a frontier. You have to improvise, make the beginnings on which later law is founded—"

So they called Joe, and Harvey Vellis said to him, "Joe—do you suppose you could ever be a pastor, priest or a justice of the peace?"

Joe's grin was a mile wide. He had a big and sentimental heart. "I catch," he said. "Sure—all three—maybe more!"

They ordained Joe in writing, on space-darkened paper: "We, being a community of three, on an unknown asteroid, do declare José Eugenio Palmas Alvarez, one of our number, to be, and to assume the duties of, our civil magistrate. . . ."

Then, on another paper, Harvey wrote:

"Before the laws of man and nature, I, Harvey Vellis, of Dos Piedras, New Mexico, U.S.A., Earth, do enter into marriage with Lilleth Thomas, of New York, by pledge of my honor and life, for all the time that is left to us, this contract being written and pledged with solemn respect to the codes of our native planet and nation, now out of reach, but to be conformed with in full and directly, if chance and earnest effort permit."

Joe used his own ring and pocket Bible. With Harvey and Lilleth, he went through familiar lines and pledges in English. Then he muttered a prayer in his own language.

It was a reckless thing for these young people to do. But they could not have been more solemn or earnest. Life had become infinitely precious.

Above them the stars were brilliant and hard. There was a tap on the roof of the dome. A little rock had drifted in from space—part of the asteroid belt. Its speed, relative to the sun, was probably around fourteen miles per second. But all the belt was moving at approximately that speed, and in the same direction. So there was no harm in it.

"How do you feel, honey?" Harvey asked.

"Fine—perfect!" she answered, and meant it.

It was more illusion, for even what they seemed to have of life and home was not yet theirs.

THE FLAW lay in the human element, as affected by space, and, more specifically, by the conditions peculiar to the asteroid belt itself. Scattered thinly around its tremendous ring-like expanse were perhaps three thousand men—newcomers to this latest colonial frontier—a place of tremendous resources, unorganized as yet, even for proper exploitation, much less by law, order, or civilization.

These men were ordinary men, for the most part, even though high romance and the eagerness for wealth had touched them. But can a man keep himself civilized or sane, while living as they lived?

The belt is a strange region, with no counterpart elsewhere in the solar system. Those tiny minor planets, those fragments of a real world, have so little gravity that a real spaceship is not needed to travel among them. A specially designed and balanced spacesuit, with a small atomic jet-motor fitted into its back-plate, is sufficient. So men can skip from asteroid to asteroid, wandering like nomads.

But consider how they live, sleeping in their armor, drawing their arms out of the heavy sleeves of their spacesuits to feed themselves pellets of concentrated rations inside their helmets, smelling the rank perspiration of their own unwashed bodies, and the accumulation of the fumes of the few cigarettes they can allow themselves, to avoid overtaxing their perishable air-purifiers.

This is only a sketchy picture of the truth. Consider the constant worry of having their air-purifiers give out, of consuming all of their food and water, of being hopelessly lost. Add a stiff dose of wealth-hunger. Add homesickness. Add the inevitable effect of icy stars. Add the instinct of self-preservation, when death by suffocation is perhaps only scant hours away.

Then, have you the same fellow, who, on Earth, used to grin genially to his friends, and say "Hiyuh, pal!" Or do you have an individual dominated by the instincts of the wolf-pack on the hunt, who would gladly murder for a breath of fresh air, that his hoarded wealth of metal cannot buy?

About three months after the landing of Harvey Vellis, Lillith Thomas Vellis, and Joe Palmas on the asteroid, there was such a group of nine men a scant million miles away. Their supplies were very low.

They'd wandered far. Gold they had scorned in their hunt for treasure. It was worth less than dirt, here.

Here in the belt, formed by the explosion of a world from natural, atomic causes, all buried wealth was exposed. Not just soft, useless gold, but uranium, radium, and half a dozen other costly metals, needed to feed the space fleets, and the wheels of industry and comfort at home . . .

They had gathered it in a great wire net, which they towed by means of cables, as they hurtled along in free flight. And they had more than just these metals. They had treasures from that destroyed civilization of fifty million years ago. Beautifully wrought jewelry, small, ornate vases, fabrics and tapestries of gorgeous design that never aged. The lot was worth twenty fortunes.

Still, they were in desperate straits. They knew that a supply-ship was due—maybe already overdue. You were never quite sure of supply-ships. They moved erratically, landing here and there. You never knew quite when or where.

In space you can see a long way. That helps to make the vastness of distance less significant. One of the nine men peered ahead, through a small telescope that swung into place over the face-plate of his helmet. "Dammit," he growled to his companions, "I was sure I saw a little star wink on and off—" He was a big man with a growling voice—one of a type. A rough leader.

They passed into the shadow of a small asteroid, and there, in the intense blackness, the seeing was better. "There she is again!" the big man snapped.

"The ship?" another man asked. "Never heard of 'em botherin' to signal their position with lights. They'd be afraid guys like us would mob 'em."

"Could be what's left of a liner," the big man answered. "Heard of one crackin' up. Hmm—what if it was so, boys?"

Them signalin' for help. Imagine . . . And us needing to help ourselves! Worth looking into, anyhow. Can't be a natural light. So let's get clear of the belt, where we can't hit anything, and pour on what's left of the juice. Thirty miles a second'll bring us to that light in short order."

Of the gang, one had been a jeweler with many friends, one had been a policeman, another had been a hospital steward. Two had been carpenters, who had taken their wives and kids out riding on Sunday. But life in the belt had changed them. All carried blasters, useful in asteroid mining, equally useful to kill.

They came toward the big rotating searchlight that Harvey and Joe had rigged as a distress beacon, as unheralded as ghosts, for by luck it was still night on the side of the asteroid where there were now five domes. Five minutes after they landed, the small sun appeared over the eastern edge of the plain, and revealed a strange spectacle to the intruders.

"Well, whatdyuhknow!" the big man chirped in falsely naive and harmless wonder. "They even got a garden, with sweet corn and stuff growing in it, in one of those domes. Loosen up your belts, guys. First thing you know, a little gal with an apron'll come marchin' out!"

It was all terribly easy. Space was partly responsible, again. On the part of Joe and Harvey, there was that first awful gladness at seeing other human beings after having been hopelessly stranded. For a critical few seconds, it made them as trusting as children.

Joe opened the airlock to the pack, and they came tramping into the main dome, with its chairs, rugs, and its zinnias, growing in jars filled with bits of rock and hydroponic solution.

Harvey was armed with a blaster, for he was not wholly green. But another thing threw him—it was the sight of the big man. For a second he thought it was Dink Darrell, who had hazed him most

when he was a kid. It wasn't Dink, but it was a guy like him. It hit the raw edge of an old complex in Harvey Vellis—a complex which no longer had a basis in fact, since he'd worked out of it. But its shadow was still there, for a critical moment—that old fear of big men laughing, kidding, that old unfaceable dread of being discovered in a place where it used to seem that he could never belong.

It made Harvey quiver; it made his cheeks turn pale—for just long enough to prevent him from getting his weapon from its holster, when it could have been of some use.

THE LEERS went around the dome—mocking travesties of friendly smiles. "Hello, friend," said the big guy. "Gosh, you've got a nice place here!"

He removed his helmet, and pushed himself into a chair. But it wasn't hard to see how the hands of the others lingered near their weapons.

"Nice and homelike," the big guy went on. "Bet we can even get breakfast here, hunh? Glory, how I'd go for a good home-cooked meal! Notice you got a lot of equipment, too, stacked up in the other domes out there. We need an awful lot of stuff—"

Nowhere in the big man's words themselves was there anything yet that was definitely out of line. It was only the coarsely gentle tone, and the grins of the other members of the pack, and the gleam in their slitted eyes, that made it perfectly plain that these men were bent on pillage at the very least—pillage, that, out here, where supplies were vital, amounted to murder.

Harvey and Joe stood passively sullen. They hadn't disarmed Harvey, for, still white-cheeked, he had the look of the harmless twerp, again. Maybe that was their mistake; but it didn't amount to

much, because they had a lot of blasters. They didn't even bother to draw. But that didn't help Harvey much, either. He had to think of something. . . .

The big guy's gaze went dreamy. He even seemed to relax. "Yeah," he mused "Nice. Real nice. Six months I been out here—six lousy, stinkin' months without a bath. So this is civilization!"

You could sense it, at a certain moment. A subtle shift from sincerity. Not only in the big man, but in the others. More of the treachery of space—aimed, this time, at them. Fearfully hard living—then the relief, the relaxation, the unwariness, encouraged by the presence of a little desperately needed comfort. . . .

HARVEY Vellis sensed that moment; matched it, he hoped, with the probable meaning of a faint, shadowy movement beyond a door, which led to the two rooms that had been part of the *Aries*. Then he acted.

He drew and fired his blaster at the leg of the chair in which the big leader had sprawled with such insolent confidence. As the chair and man toppled lazily, and while the place was full of dazzling light and dazing sound, he leaped to close quarters, and jerked the blaster from the holster at chief's hip, at the same time jerking him erect against the feeble gravity, to use him as a momentary shield against the others' guns.

The latter maneuver wasn't necessary, for just then the muzzle of a heavy-gauge blaster appeared from the shadowy doorway, with a space-armored figure behind it. One blurb from that weapon would have mowed most of the intruders down, and blown their vaporized atoms straight through the wall of the collapsing dome. Harvey and Joe would have had to gasp for a moment in the vacuum, before they were rescued. . . .

But that didn't happen.

The big leader's jaw dropped. His sur-

prise looked almost hurt, as if his mind were bogged down somewhere between law, order, and the comforts of regular living, and the brutality of a space frontier.

Lilleth stood, grim and ready, behind the heavy blaster.

"Hey—this is downright unfriendly!" the big guy protested, too fuddled, now, to be sarcastic.

"Oh, so?" Lilleth challenged. Joe was collecting the blasters and belt knives from the others.

Harvey took over. It wasn't primarily generosity that moved him now, but a plan must have been growing in his subconscious for a long time. A beginning for something big. "Not unfriendly—just careful," he said. "It seems that people go belt-daffy. So that's over. I just had an idea—"

He let go of the big leader, and backed away from him, and lowered the muzzle of his own weapon.

"We do have a lot of supplies here, which are ours by right of salvage, and a lot of work and danger," he continued. "If you have anything to trade you can buy what you need that we have, at a price that is fair for these regions—considering what it took to salvage the stuff, and considering the enormous value of the things within easy reach of asteroid miners. Yes, you must have stuff to trade. Or if you have nothing, we'll give you enough on credit, to tide you over. And you could wash up and sleep, here, and get a meal.

"Fair enough?"

The big guy had a strange, puzzled light in his eyes, as if he had just discovered that this was the way that he wanted things to be out here—orderly, and on the level, like at home. The weariness after long months of harsh living in the belt was too great for the result, now, to have been otherwise.

He looked at his men questioningly,

and they nodded. They felt the same way.

"My name's Dave Barrow," he said to Harvey. "What's yours?"

Harvey told him.

"Your offer looks okay to me," Barrow said. "And we have plenty to trade—more than all the stuff you got could ever be worth!"

"You could trade some of it, and store the rest—for a fee," Harvey Vellis said. "Right now there doesn't seem to be any way for us to cheat you, even if we wanted to. Besides, we can list everything by measure, and give you a receipt. How does that sound?"

Barrow grinned, as if he too visualized, in what was here, another outward step toward the stars, and was pleased. "You go fast, Friend Vellis," he laughed. "But okay. We could use your hospitality, also some new electrodes for our air-purifiers, also concentrated rations and canned goods and water and tools and fuel-bars. Also a couple of new spacesuits, maybe—of the belt-hopping variety, balanced, and with built-in jets—"

"If we had such suits, we would have gotten away from here," Harvey answered. "But we can give you the other things you want, plus repair service—maybe. Or—unless I'm getting too far ahead of myself—maybe we might find a way to order those suits for you. Yeah, we just might do that. . . ."

Harvey was getting a little dizzy over his own words, which seemed to come out without any assistance from himself. Habit and training were coming into play in him.

"We'll probably see the supply ship after we leave here," Dave Barrow offered. "Most likely they'll be sold out; but we could tell 'em to land here, and take your orders. Though I'll probably come back with it myself, to make sure you don't try to rook me when they take my stuff aboard."

Harvey chuckled. "Now *PU* say fair

enough!" he replied. "Only I'd better go into conference with my associates, before I promise too much." He looked at Lilleth. "Honey—do we stay here to do business or do we shove back to Earth, or Mars?"

She glanced around her for half a minute before she answered. At the chairs. At the flowers. At the corn and carrots and lettuce and radishes in the adjacent garden-dome. At the rugs. Her gaze grew fond, and possessive. It seems that a woman can make a home anywhere. Especially an adventurous woman like Lilleth Thomas Vellis. It doesn't have to be in Maine, or even in California. It can be on a barren hunk of rock, a million miles from nowhere. . . .

"We stay here, Harv," she said. Joe Palmas nodded.

THAT'S about all there is to the really important part of the whimsical story of Harvey Vellis, that drifted back to Dos Piedras from the belt, from Out, where it seemed that the scared little clerk from Mr. Finkel's store could never go. But the tale goes on and on—part of mankind's outward surge across the face of the universe. . . .

They were married again by the captain of the supply-ship. But an hour after it had left, they were painting a sign together. A symbol of a beginning of something in the belt. Something that most everybody wanted. A touch of home and safety. A beginning, around which a domed city is rising, to push the frontiers outward and outward. And the start of a fortune for themselves.

Harvey Vellis painted the letters of the words at his wife's dictation: **TRADING POST—GENERAL STORE—HOSTELRY—BANK—SPACEMAN'S REFUGE. VELLIS AND PALMAS—OWNERS.**

Lilleth laughed, and kissed Harvey. "Now put in 'Mail posted and received,'" she told him.