

D C

THE MAGAZINE OF
Fantasy AND

Science Fiction

15th ANNIVERSARY

ALL STAR ISSUE



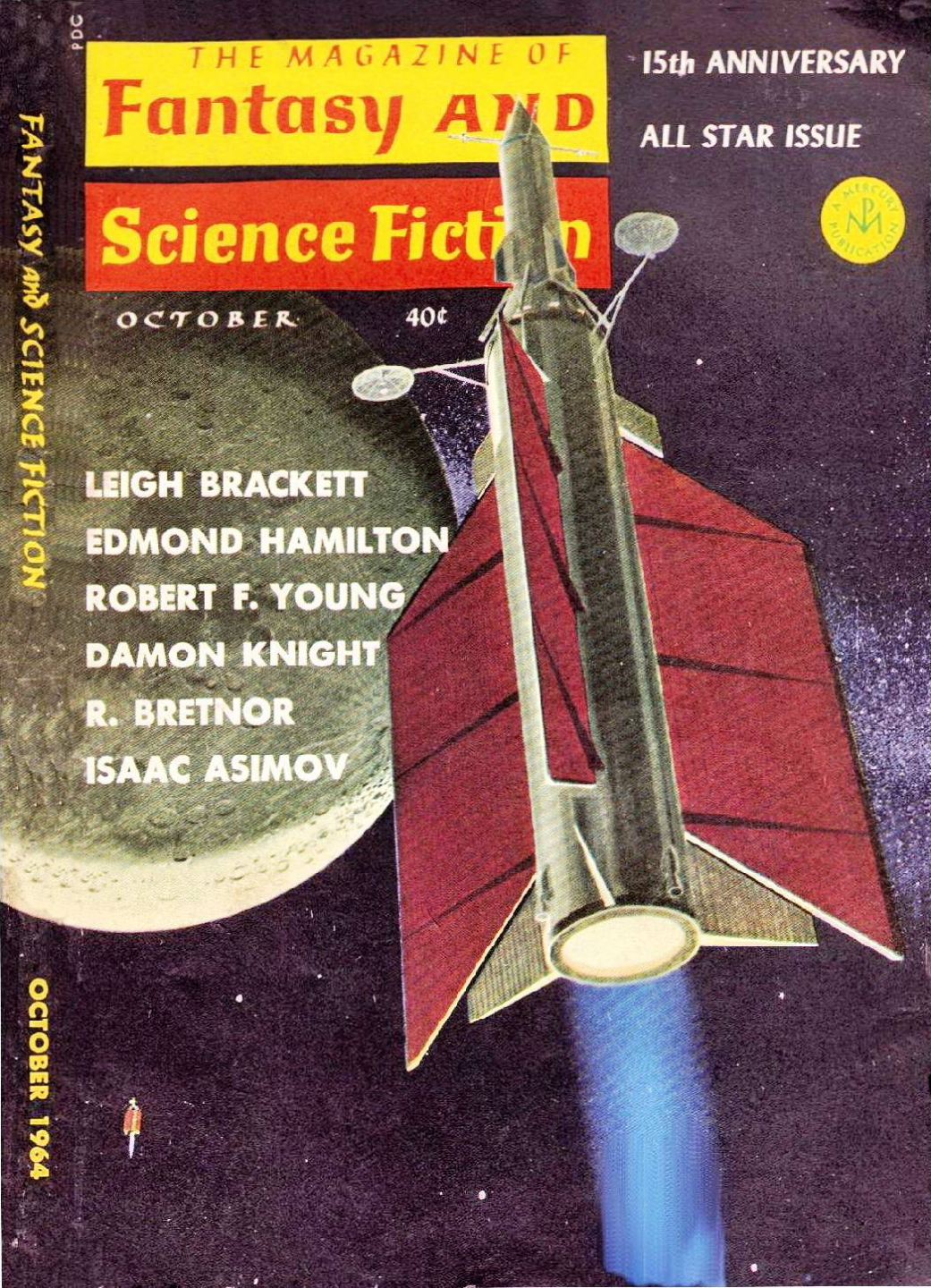
OCTOBER

40¢

LEIGH BRACKETT
EDMOND HAMILTON
ROBERT F. YOUNG
DAMON KNIGHT
R. BRETNOR
ISAAC ASIMOV

FANTASY AND SCIENCE FICTION

OCTOBER 1964





Fantasy and Science Fiction

OCTOBER

Including Venture Science Fiction

Purple Priestess of the Mad Moon	LEIGH BRACKETT	4
The Pro	EDMOND HAMILTON	21
Stomata	THEODORE L. THOMAS	33
Maid to Measure	DAMON KNIGHT	34
Books	AVRAM DAVIDSON	37
Little Anton (<i>novel</i>)	R. BRETNOR	42
Science: First and Rearmost	ISAAC ASIMOV	66
The Year of the Earthman	HOGAN SMITH	76
In What Cavern of the Deep (<i>novel</i>)	ROBERT F. YOUNG	82
R&SF Marketplace		129

Cover by Chesley Bonestell (see page 81)

Joseph W. Ferman, PUBLISHER

Avram Davidson, EXECUTIVE EDITOR

Isaac Asimov, SCIENCE EDITOR

Edward L. Ferman, MANAGING EDITOR

Ted White, ASSISTANT EDITOR

The Magazine of Fantasy and Science Fiction, Volume 27, No. 4, Whole No. 161, Oct. 1964. Published monthly by Mercury Press, Inc., at 40¢ a copy. Annual subscription \$4.50; \$5.00 in Canada and the Pan American Union; \$5.50 in all other countries. Publication office, 10 Ferry Street, Concord, N. H. Editorial and general mail should be sent to 347 East 53rd St., New York, N. Y. 10022. Second Class postage paid at Concord, N. H. Printed in U.S.A. © 1964 by Mercury Press, Inc. All rights, including translations into other languages, reserved. Submissions must be accompanied by stamped, self-addressed envelopes; the Publisher assumes no responsibility for return of unsolicited manuscripts.

In the February 1955 issue of F&SF, Anthony Boucher began his introduction to THE TWEENER, "a poignant story of the near future" with these words: Leigh Brackett is the acknowledged mistress of the flamboyant interplanetary adventure. No one can rival her in telling such a story as, say, Purple Priestess of the Mad Moon so skillfully and even artistically that readers normally allergic to such extravaganzas are astonished to find themselves enjoying it. The story was subsequently translated and printed in Fiction, our French counterpart; the introducer described the author, accurately, as femme d'Edmond Hamilton—and then, mistaking Mr. Boucher's fictional exemplum as a real one, went on to attribute to her the authorship of Prêtresse Pourpre de la Lune Foue! This unintentional error thus perpetuated as fact, Miss Brackett found herself being asked over and over again where this story had appeared, and where copies of it might be procured! When we asked her to write a story to accompany her husband's on the occasion of their being joint Guests-of-Honor at the World Science Fiction Convention in Oakland, lights began to flash. The happy thought occurred to her that, since F&SF had launched this non-existent story on its curious career, F&SF ought to set matters straight by printing it; we agreed to do so if she would write it; and she has now in fact done so!

"I was born in Los Angeles [writes Leigh Brackett], privately (and rather haphazardly) educated, grew up on a California beach a peculiar amalgam of beachcomber and bookworm—i.e. when I wasn't swimming or fishing, I was reading. And decided to be a writer at age 13, because I couldn't think of an easier way to make a living. Hah! Ten years later I sold my first story, and of course by that time I was hopelessly hooked. Anyway, I love to write. Particularly Science Fiction, which has brought me many things including Edmond Hamilton, whom I married in 1946, after we had been introduced by our mutual agent and friend, Julius Schwartz, and friend and editor Mort Weisinger. Have worked in and out of Hollywood since 1943 and am currently back at it again, having done pix for Bogart, John Wayne, and anonymously (due to Guild red tape) for Rock Hudson."

The theme of Mars as ". . . a desert dying planet / and a dying race of men . . ." has haunted writers of the romantic and the fantastic since before the days of Burroughs. Ray Bradbury (with whom Miss Brackett collaborated on LORELEI OF THE RED MIST) has dealt with it more than merely admirably in his THE MARTIAN CHRONICLES for one; for another, the brilliance of Roger Zelazny's A ROSE FOR ECCLESIASTES in our November, 1963 issue will not soon be forgotten. Now Leigh Brackett brings to it her own distinctive craftsmanship, and brings forth from it a tale of love, terror, and adventure on an alien soil beneath alien skies.

PURPLE PRIESTESS OF THE MAD MOON

by Leigh Brackett

IN THE OBSERVATION BUBBLE of the TSS *Goddard* Harvey Selden watched the tawny face of the planet grow. He could make out rose-red deserts where tiny sandstorms blew, and dark areas of vegetation like textured silk. Once or twice he caught the bright flash of water from one of the canals. He sat motionless, rapt and delighted. He had been afraid that this confrontation would offer very little to his emotions; he had since childhood witnessed innumerable identical approaches on the tri-di screen, which was al-

most the same as being there one's self. But the actuality had a flavor and imminence that he found immensely thrilling.

After all, an alien planet . . .
After all, *Mars* . . .

He was almost angry when he realized that Bentham had come into the bubble. Bentham was Third Officer and at his age this was an admission of failure. The reason for it, Selden thought, was stamped quite clearly on his face, and he felt sorry for Bentham as he felt sorry for anyone afflicted with alcoholism. Still, the man

was friendly and he had seemed much impressed by Selden's knowledge of Mars. So Selden smiled and nodded.

"Quite a thrill," he said.

Bentham glanced at the on-rushing planet. "It always is. You know anybody down there?"

"No. But after I check in with the Bureau . . .

"When will you do that?"

"Tomorrow. I mean, counting from after we land, of course . . . a little confusing, isn't it, this time thing?" He knew they did three or four complete orbits on a descending spiral, which meant three or four days and nights.

Bentham said, "But in the meantime, you don't know anybody."

Selden shook his head.

"Well," said Bentham, "I'm having dinner with some Martian friends. Why don't you come along? You might find it interesting."

"Oh," said Selden eagerly, "that would be . . . But are you sure your friends won't mind? I mean, an unexpected guest dragged in at the last minute . . ."

"They won't mind," Bentham said. "I'll give them plenty of warning. Where are you staying?"

"The Kahora-Hilton."

"Of course," said Bentham. "I'll pick you up around seven." He smiled. "Kahora time."

He went out, leaving Selden with some lingering qualms of

doubt. Bentham was perhaps not quite the person he would have chosen to introduce him to Martian society. Still, he was an officer and could be presumed to be a gentleman. And he had been on the Mars run for a long time. Of course he would have friends, and what an unlooked-for and wonderful chance this was to go actually into a Martian home and visit with a Martian family. He was ashamed of his momentary uneasiness, and was able to analyze it quite quickly as being based in his own sense of insecurity, which of course arose from being faced with a totally unfamiliar environment. Once he had brought this negative attitude into the open it was easy to correct it. After a quarter of an hour of positive therapy he found himself hardly able to wait for the evening.

Kahora had grown in half a century. Originally, Selden knew, it had been founded as a Trade City under the infamous old Umbrella Treaty, so-called because it could be manipulated to cover anything, which had been concluded between the then World Government of Terra and the impoverished Martian Federation of City-States. At that time the city was housed under a single dome, climate-conditioned for the comfort of the outworld traders and politicians who frequented it and who were unused to the rigors of

cold and thin-aired Mars. In addition to the climate, various other luxuries were installed in the Trade Cities, so that they had been compared with certain Biblical locales, and crimes of many different sorts, even murder, had been known to occur in them.

But all of that, or nearly all of that, was in the bad old days of *laissez-faire*, and now Kahora was the administrative capital of Mars, sheltered under a complex of eight shining domes. From the spaceport fifteen miles away, Selden saw the city as a pale shimmer of gossamer bubbles touched by the low sun. As the spaceport skimmer flew him across the intervening miles of red sand and dark green moss-grass, he saw the lights come on in the quick dusk and the buildings underneath the domes rose and took shape, clean and graceful and clothed in radiance. He thought that he had never seen anything so beautiful. From the landing stage inside one of the domes a silent battery-powered cab took him to his hotel along gracious streets, where the lights glowed and people of many races walked leisurely. The whole trip, from debarkation to hotel lobby, was accomplished in completely air-conditioned comfort, and Selden was not sorry. The landscape looked awfully bleak, and one needed only to glance at it to know that it was damnably cold. Just before the skimmer entered

the airlock it crossed the Kahora canal, and the water looked like black ice. He knew that he might have to cope with all this presently, but he was not in any hurry.

Selden's room was pleasantly homelike and the view of the city was superb. He showered and shaved, dressed in his best dark silk, and then sat for a while on his small balcony overlooking the Triangle with the Three Worlds represented at its apices. The air he breathed was warm and faintly scented. The city sounds that rose to him were pleasantly subdued. He began to run over in his mind the rules he had learned for proper behavior in a Martian house, the ceremonial phrases and gestures. He wondered whether Bentham's friends would speak High or Low Martian. Low, probably, since that was most commonly in use with outsiders. He hoped his accent was not too barbarous. On the whole he felt adequate. He leaned back in his comfortable chair and found himself looking at the sky.

There were two moons in it, racing high above the glow and distortion of the dome. And for some reason, although he knew perfectly well that Mars had two moons, this bit of alienage had a powerful effect on him. For the first time he realized, not merely with his intellect but with his heart and bowels, that he was on a

strange world a long, long way from home.

He went down to the bar to wait for Bentham.

The man arrived in good time, freshly turned out in civilian silks and, Selden was glad to see, perfectly sober. He bought him a drink and then followed him into a cab, which bore them quietly from the central dome into one of the outer ones.

"The original one," Bentham said. "It's chiefly residential now. The buildings are older, but very comfortable." They were halted at a concourse waiting for a flow of cross traffic to pass and Bentham pointed at the dome roof. "Have you seen the moons? They're both in the sky now. That's the thing people seem to notice the most when they first land."

"Yes," Selden said. "I've seen them. It is . . . uh . . . striking."

"The one we call Deimos . . . that one there . . . the Martian name is Vashna, of course . . . that's the one that in certain phases was called the Mad Moon."

"Oh no," Selden said. "That was Phobos. Denderon."

Bentham gave him a look and he reddened a bit. "I mean, I think it was." He knew damn well it was, but after all . . . "Of course you've been here many times, and I could be mistaken . . ."

Bentham shrugged. "Easy

enough to settle it. We'll ask Mak."

"Who?"

"Firsa Mak. Our host."

"Oh," said Selden, "I wouldn't . . ."

But the cab sped on then and Bentham was pointing out some other thing of interest and the subject passed.

Almost against the outer curve of the dome there was a building of pale gold and the cab stopped there. A few minutes later Selden was being introduced to Firsa Mak.

He had met Martians before, but only rarely and never *in situ*. He saw a dark, small, lean, catlike man with the most astonishing yellow eyes. The man wore the traditional white tunic of the Trade Cities, exotic and very graceful. A gold earring that Selden recognized as a priceless antique hung from his left earlobe. He was not at all like the rather round and soft Martians Selden had met on Terra. He flinched before those eyes, and the carefully mustered words of greeting stuck in his throat. Then there was no need for them as Firsa Mak shook his hand and said, "Hello. Welcome to Mars. Come on in."

A wiry brown hand propelled him in the most friendly fashion into a large low room with a glass wall that looked out through the dome at the moon-washed desert. The furniture was simple modern

stuff and very comfortable, with here and there a bit of sculpture or a wall-plaque as fine as, but no better than, the Martian handcrafts obtainable at the good specialty shops in New York. On one of the couches a very long-legged, gaunt and white-haired Earthman sat drinking in a cloud of smoke. He was introduced as Altman. He had a face like old leather left too long in the sun, and he looked at Selden as from a great height and a far distance. Curled up beside him was a dark girl, or woman . . . Selden could not decide which because of the smoothness of her face and the too-great wisdom of her eyes, which were as yellow and unwinking as Firsia Mak's.

"My sister," Firsia Mak said. "Mrs. Altman. And this is Lella."

He did not say exactly who Lella was, and Selden did not at the moment care. She had just come in from the kitchen bearing a tray of something or other, and she wore a costume that Selden had read about but never seen. A length of brilliant silk, something between red and burnt orange, was wrapped about her hips and caught at the waist by a broad girdle. Below the skirt her slim brown ankles showed, with anklets of tiny golden bells that chimed faintly as she walked. Above the skirt her body was bare and splendidly made. A necklace of gold plaques intricately pierced and

hammered circled her throat, and more of the tiny bells hung from her ears. Her hair was long and deeply black and her eyes were green, with the most enchanting tilt. She smiled at Selden, and moved away with her elfin music, and he stood stupidly staring after her, hardly aware that he had taken a glass of dark liquor from her proffered tray.

Presently Selden was sitting on some cushions between the Altmans and Firsia Mak, with Bentham opposite. Lella kept moving distractingly in and out, keeping their glasses filled with the peculiar smoky-tasting hellfire.

"Bentham tells me you're with the Bureau of Interworld Cultural Relations," Firsia Mak said.

"Yes," said Selden. Altman was looking at him with that strange remote glare, making him feel acutely uncomfortable.

"Ah. And what is your particular field?"

"Handcrafts. Metalwork. Uh . . . the ancient type of thing, like that . . ." He indicated Lella's necklace, and she smiled.

"It is old," she said, and her voice was sweet as the chiming bells. "I would not even guess how old."

"The pierced pattern," Selden said, "is characteristic of the Seventeenth Dynasty of the Khalide Kings of Jekkara, which lasted for approximately two thousand years at the period when Jekkara was de-

clining from her position as a maritime power. The sea was receding significantly then, say between fourteen and sixteen thousand years ago."

"So old?" Lella said, and fingered the necklace wonderingly.

"That depends," said Bentham. "Is it genuine, Lella, or is it a copy?"

Lella dropped to her knees beside Selden. "You will say."

They all waited. Selden began to sweat. He had studied hundreds of necklaces, but never *in situ*. Suddenly he was not sure at all whether the damned thing was genuine, and he was just as suddenly positive that they did know and were needling him. The plaques rose and fell gently to the lift of Lella's breathing. A faint dry spicy fragrance reached his nostrils. He touched the gold, lifted one of the plaques and felt of it, warm from her flesh, and yearned for a nice uncomplicated textbook that had diagrams and illustrations and nothing more to take your mind off your subject. He was tempted to tell them to go to hell. They were just waiting for him to make a mistake. Then he got madder and bolder and he put his whole hand under the collar, lifting it away from her neck and testing the weight of it. It was worn thin and light as tissue paper and the under surface was still pocked by the ancient hammer strokes in the particular fashion of the Khalide artificers.

It was a terribly crude test, but his blood was up. He looked into the tilted green eyes and said authoritatively, "It's genuine."

"How wonderful that you know!" She caught his hand between hers and pressed it and laughed aloud with pleasure. "You have studied very long?"

"Very long." He felt good now. He hadn't let them get him down. The hellfire had worked its way up into his head, where it was buzzing gently, and Lella's attention was even more pleasantly intoxicating.

"What will you do now with this knowledge?" she asked.

"Well," he said, "as you know, so many of the ancient skills have been lost, and your people are looking for ways to expand their economy, so the Bureau is hoping to start a program to reeducate metal-workers in places like Jekkara and Valkis . . ."

Altman said in a remote and very quiet voice, "Oh good God Albloodymighty."

Selden said, "I beg your pardon?"

"Nothing," Altman said. "Nothing."

Bentham turned to Firsak Mak. "By the way, Selden and I had a difference of opinion on the way here. He's probably right, but I said I'd ask you . . ."

Selden said hastily, "Oh, let's forget it, Bentham." But Bentham was obtuse and insistent.

"The Mad Moon, Firsra Mak. I say Vashna, he says Denderon."

"Denderon, of course," said Firsra Mak, and looked at Selden. "So you know all about that, too."

"Oh," said Selden, embarrassed and annoyed with Bentham for bringing it up, "please, we thoroughly understand that that was all a mistake."

Altman leaned forward. "Mistake?"

"Certainly. The early accounts . . ." He looked at Firsra Mak and his sister and Lella and they all seemed to be waiting for him to go on, so he did, uncomfortably. "I mean, they resulted from distortions of folklore, misinterpretation of local customs, pure ignorance . . . in some cases, they were downright lies." He waved his hand deprecatingly. "We don't believe in the Rites of the Purple Priestess and all that nonsense. That is to say, we don't believe they ever occurred, really."

He hoped that would close the subject, but Bentham was determined to hang to it. "I've read eye-witness accounts, Selden."

"Fabrications. Traveller's tales. After all, the Earthmen who first came to Mars were strictly the piratical exploiter type and were hardly either qualified or reliable observers . . ."

"They don't need us any more," said Altman softly, staring at Selden but not seeming to see him. "They don't need us at all." And

he muttered something about winged pigs and the gods of the marketplace. Selden had a sudden horrid certainty that Altman was himself one those early piratical exploiters and that he had irreparably insulted him. And then Firsra Mak said with honest curiosity.

"Why is it that all you young Earthmen are so ready to cry down the things your own people have done?"

Selden felt Altman's eyes upon him, but he was into this now and there was no backing down. He said with quiet dignity, "Because we feel that if our people have made mistakes we should be honest enough to admit them."

"A truly noble attitude," said Firsra Mak. "But about the Purple Priestess . . ."

"I assure you," said Selden hastily, "that old canard is long forgotten. The men who did the serious research, the anthropologists and sociologists who came after the . . . uh . . . the adventurers, were far better qualified to evaluate the data. They completely demolished the idea that the rites involved human sacrifice, and of course the monstrous Dark Lord the priestess was supposed to serve was merely the memory of an extremely ancient earth-god . . . mars-god, I should say, but you know what I mean, a primitive nature thing, like the sky or the wind."

Firsa Mak said gently, "But there was a rite . . ."

"Well, yes," said Selden, "undoubtedly. But the experts proved that it was purely vestigial, like . . . well, like our own children dancing around the Maypole."

"The Low-Canallers," said Altman, "never danced around any Maypoles." He rose slowly and Selden watched him stretch higher and higher above him. He must have stood a good six inches over six feet, and even from that height his eyes pierced Selden. "How many of your qualified observers went into the hills above Jekkara?"

Selden began to bristle a bit. The feeling that for some reason he was being baited grew stronger. "You must know that until very recently the Low-Canal towns were closed to Earthman . . ."

"Except for a few adventurers."

"Who left highly dubious memoirs! And even yet you have to have a diplomatic passport involving miles of red tape, and you're allowed very little freedom of movement when you get there. But it is a beginning, and we hope, we hope very greatly, that we can persuade the Low-Canallers to accept our friendship and assistance. It's a pity that their own secretiveness fostered such a bad image. For decades the only ideas we had of the Low-Canal towns came from the lurid accounts of the early travellers, and the extremely biased . . . as we

learned later . . . attitude of the City-States. We used to think of Jekkara and Valkis as, well, perfect sinks of iniquity . . ."

Altman was smiling at him. "But my dear boy," he said. "They are. They are."

Selden tried to disengage his hand from Lella's. He found that he could not, and it was about then that he began to be just the least little bit frightened.

"I don't understand," he said plaintively. "Did you get me here just to bait me? If you did, I don't think it's very . . . Bentham?"

Bentham was at the door. The door now seemed to be much farther away than Selden remembered and there was a kind of mist between him and it so that Bentham's figure was indistinct. Nevertheless he saw it raise a hand and heard it say, "Good by." Then it was gone, and Selden, feeling infinitely forlorn, turned to look into Lella's eyes. "I don't understand," he said. "I don't understand." Her eyes were green and enormous and deep without limit. He felt himself topple and fall giddily into the abyss, and then of course it was far too late to be afraid.

Hearing returned to him first, with the steady roar of jets, and then there was the bodily sensation of being borne through air that was shaken occasionally by large turbulences. He opened his

eyes, in wild alarm. It was several minutes before he could see anything but a thick fog. The fog cleared gradually and he found himself staring at Lella's gold necklace and remembering with great clarity the information concerning it that he had rattled off so glibly and with such modest pride. A simple and obvious truth came to him.

"You're from Jekkara," he said, and only then did he realize that there was a gag in his mouth. Lella started and looked down at him.

"He's awake."

Firsa Mak rose and bent over Selden, examining the gag and a set of antique manacles that bound his wrists. Again Selden flinched from those fierce and brilliant eyes. Firsa Mak seemed to hesitate, on the verge of removing the gag, and Selden mustered his voice and courage to demand explanations. A buzzer sounded in the cabin, apparently a signal from the pilot, and at the same time the motion of the copter altered. Firsa Mak shook his head.

"Later, Selden. I have to leave you this way because I can't trust you, and all our lives are in danger, not just yours . . . though yours most of all." He leaned forward. "This is necessary, Selden. Believe me."

"Not necessary," Altman said, appearing stooped under the cabin ceiling. "Vital. You'll understand that, later."

Lella said harshly, "I wonder if he will."

"If he doesn't," Altman said, "God help them all, because no one else can."

Mrs. Altman came with a load of heavy cloaks. They had all changed their clothes since Selden had last seen them, except Lella, who had merely added an upper garment of native wool. Mrs. Altman now wore the Low-Canal garb, and Firsa Mak had a crimson tunic held with a wide belt around his hips. Altman looked somehow incredibly right in the leather of a desert tribesman; he was too tall, Selden guessed, to pass for a Jekkaran. He wore the desert harness easily, as though he had worn it many times. They made Selden stand while they wrapped a cloak around him, and he saw that he had been stripped of his own clothing and dressed in a tunic of ochre-yellow, and where his limbs showed they had been stained dark. Then they strapped him into his seat again and waited while the copter slowed and dropped toward a landing.

Selden sat rigid, numb with fear and shock, going over and over in his mind the steps by which he had come here and trying to make sense out of them. He could not. One thing was certain, Bentham had deliberately led him into a trap. But why? *Why?* Where were they taking him, what

did they mean to do with him? He tried to do positive therapy but it was difficult to remember all the wisdom that had sounded so infinitely wise when he had heard it, and his eyes kept straying to the faces of Altman and Firsia Mak.

There was a quality about them both, something strange that he had never seen before. He tried to analyze what it was. Their flesh appeared to be harder and drier and tougher than normal, their muscles more fibrous and prominent, and there was something about the way they used and carried themselves that reminded him of the large carnivores he had seen in the zoo parks. There was, even more striking, an expression about the eyes and mouth, and Selden realized that these were violent men, men who could strike and tear and perhaps even kill. He was afraid of them. And at the same time he felt superior. He at least was above all that.

The sky had paled. Selden could see desert racing past below. They settled onto it with a great spuming of dust and sand. Altman and Firsia Mak between them half carried him out of the copter. Their strength was appalling. They moved away from the copter and the backwash of the rotors beat them as it took off. Selden was stricken by the thin air and bitter cold. His bones felt brittle and his lungs were full of knives.

The others did not seem to mind. He pulled his cloak tight around him as well as he could with his bound hands, and felt his teeth chattering into the gag. Abruptly Lella reached out and pulled the hood completely down over his face. It had two eyeholes so that it could be used as a mask during sandstorms, but it stifled him and it smelled strangely. He had never felt so utterly miserable.

Dawn was turning the desert to a rusty red. A chain of time-eaten mountains, barren as the fossil vertebrae of some forgotten monster, curved across the northern horizon. Close at hand was a tumbled mass of rocky outcrops, carved to fantastic shapes by wind and sand. From among these rocks there came a caravan.

Selden heard the bells and the padding of broad splayed hoofs. The beasts were familiar to him from pictures. Seen in their actual sealy reality, moving across the red sand in that wild daybreak with their burdens and their hooded riders, they were apparitions from some older and uglier time. They came close and stopped, hissing and stamping and rolling their cold bright eyes at Selden, not liking the smell of him in spite of the Martian clothing he wore. They did not seem to mind Altman. Perhaps he had lived with the Martians so long that there was no difference now.

Firsia Mak spoke briefly with the

leader of the caravan. The meeting had obviously been arranged, for led animals were brought. The women mounted easily. Selden's stomach turned over at the idea of actually riding one of these creatures. Still, at the moment, he was even more afraid of being left behind, so he made no protest when Firsu Mak and Altman heaved him up onto the saddle pad. One of them rode on each side of him, holding a lead rein. The caravan moved on again, northward toward the mountains.

Within an hour Selden was suffering acutely from cold, thirst, and the unaccustomed exercise. By noon, when they halted to rest, he was almost unconscious. Altman and Firsu Mak helped him down and then carried him around into some rocks where they took the gag out and gave him water. The sun was high now, piercing the thin atmosphere like a burning lance. It scalded Selden's cheeks but at least he was warm, or almost warm. He wanted to stay where he was and die. Altman was quite brutal about it.

"You wanted to go to Jekkara," he said. "Well, you're going . . . just a little bit earlier than you planned, that's all. What the hell, boy, did you think it was all like Kahora?"

And he heaved Selden onto his mount again and they went on.

In midafternoon the wind got up. It never really seemed to stop

blowing, but in a tired sort of way, wandering across the sand, picking up a bit of dust and dropping it again, chafing the upthrust rocks a little deeper, stroking the ripple-patterns into a different design. Now it seemed impatient with everything it had done and determined to wipe it out and start fresh. It gathered itself and rushed screaming across the land, and it seemed to Selden that the whole desert took up and went flying in a red and strangling cloud. The sun went out. He lost sight of Altman and Firsu Mak at either end of his reins. He hung in abject terror to his saddle pad, watching for the small segment of rein he could see to go slack, when he would know that he was irretrievably lost. Then as abruptly as it had risen the wind dropped and the sand resumed its quiet, eternal rolling.

A little while after that, in the long red light from the west, they dipped down to a line of dark water strung glittering through the desolation, banded with strips of green along its sides. There was a smell of wetness and growing things, and an ancient bridge, and beyond the canal was a city, with the barren hills behind it.

Selden knew that he was looking at Jekkara. And he was struck with awe. Even at this late day few Earthmen had seen it. He stared through the eyeholes of his hood, seeing at first only the larger

masses of rose-red rock, and then as the sun sank lower and the shadows shifted, making out the individual shapes of buildings that melted more and more gently into the parent rock the higher they were on the sloping cliffs. At one place he saw the ruins of a great walled castle that he knew had once housed those self-same Khalide Kings and lord knew how many dynasties before them in the days when this desert was the bottom of a blue sea, and there was a lighthouse still standing above the basin of a dry harbor half way up the cliffs. He shivered, feeling the enormous weight of a history in which he and his had had no part whatever, and it came to him that he had perhaps been just the tiniest bit presumptuous in his desire to teach these people.

That feeling lasted him half way across the bridge. By that time the western light had gone and the torches were flaring in the streets of Jekkara, shaken by the dry wind from the desert. His focus of interest shifted from the then to the now, and once more he shivered, but for a different reason. The upper town was dead. The lower town was not, and there was a quality to the sight and sound and smell of it that petrified him. Because it was exactly as the early adventurers in their dubious memoirs had described it.

The caravan reached the broad square that fronted the canal, the

beasts picking their way protestingly over the sunken, tilted paving stones. People came to meet them. Without his noticing it, Altman and Firsia Mak had maneuvered Selden to the end of the line, and now he found himself being detached and quietly led away up a narrow street between low stone buildings with deep doorways and small window-places, all their corners worn round and smooth as stream-bed rocks by time and the rubbing of countless hands and shoulders. There was something going on in the town, he thought, because he could hear the voices of many people from somewhere beyond, as though they were gathering in a central place. The air smelled of cold and dust, and unfamiliar spices, and less identifiable things.

Altman and Firsia Mak lifted Selden down and held him until his legs regained some feeling. Firsia Mak kept glancing at the sky. Altman leaned close to Selden and whispered, "Do exactly as we tell you, or you won't last the night."

"Nor will we," muttered Firsia Mak, and he tugged Selden's gag and made sure his cowl was pulled down to hide his face. "It's almost time."

They led Selden quickly along another winding street. This one was busy and populous. There were sounds and sweet pungent odors and strange-colored lights, and there were glimpses into wick-

ednesses of such fantastic array and imaginative genius that Selden's eyes bulged behind his cowl and he remembered his Seminars in Martian Culture with a species of hysteria. Then they came out into a broad square.

It was full of people, cloaked against the night wind and standing quietly, their dark faces still in the shaking light of the torches. They seemed to be watching the sky. Altman and Firsak Mak, with Selden held firmly between them, melted into the edges of the crowd. They waited. From time to time more people came from the surrounding streets, making no sound except for the soft slurring of sandalled feet and the faint elfin chiming of tiny bells beneath the cloaks of the women. Selden found himself watching the sky, though he did not understand why. The crowd seemed to grow more silent, to hold all breath and stirring, and then suddenly over the eastern roofs came the swift moon Denderon, low and red.

The crowd said, "Ah-h-h!", a long musical cry of pure despair that shook Selden's heart, and in the same moment harpers who had been concealed in the shadow of a time-worn portico struck their double-banked harps and the cry became a chant, half a lament and half a proud statement of undying hate. The crowd began to move, with the harpers leading and other men carrying torches to light the

way. And Selden went with them, up into the hills behind Jekkara.

It was a long cold way under the fleeting light of Denderon. Selden felt the dust of millennia grate and crunch beneath his sandals and the ghosts of cities passed him to the right and left, ruined walls and empty marketplaces and the broken quays where the ships of the Sea-Kings docked. The wild fierce music of the harps sustained and finally dazed him. The long chanting line of people strung out, moving steadily, and there was something odd about the measured rhythm of their pace. It was like a march to the gallows.

The remnants of the works of man were left behind. The barren hills bulked against the stars, splashed with the feeble moonlight that now seemed to Selden to be inexpressibly evil. He wondered why he was no longer frightened. He thought perhaps he had reached the point of complete emotional exhaustion. At any rate he saw things clearly but with no personal involvement.

Even when he saw that the harpers and the torch-bearers were passing into the mouth of a cavern he was not afraid.

The cavern was broad enough for the people to continue marching ten abreast. The harps were muffled now and the chanting took on a deep and hollow tone. Selden felt that he was going downward. A strange and rather terrible eager-

ness began to stir in him, and this he could not explain at all. The marchers seemed to feel it too, for the pace quickened just a little to the underlying of the harpstrings. And suddenly the rock walls vanished out of sight and they were in a vast cold space that was completely black beyond the pinprick glaring of the torches.

The chanting ceased. The people filed on both sides into a semi-circle and stood still, with the harpers at the center and a little group of people in front of them, somehow alone and separate.

One of these people took off the concealing cloak and Selden saw that it was a woman dressed all in purple. For some obscure reason he was sure it was Lella, though the woman's face in the torchlight showed only the smooth gleaming of a silver mask, a very ancient thing with a subtle look of cruel compassion. She took in her hands a pale globed lamp and raised it, and the harpers struck their strings once. The other persons, six in in number, laid aside their cloaks. They were three men and three women, all naked and smiling, and now the harps began a tune that was almost merry and the woman in purple swayed her body in time to it. The naked people began to dance, their eyes blank and joyous with some powerful drug, and she led them dancing into the darkness, and as she led them she sang, a long sweet fluting call.

The harps fell silent. Only the woman's voice sounded, and her lamp shone like a dim star, far away.

Beyond the lamp, an eye opened and looked and was aware.

Selden saw the people, the priestess and the six dancing ones, limned momentarily against that orb as seven people might be limned against a risen moon. Then something in him gave way and he fell, clutching oblivion to him like a saving armor.

They spent the remainder of that night and the following day in Firsia Mak's house by the dark canal, and there were sounds of terrible revelry in the streets. Selden sat staring straight ahead, his body shaken by small periodic tremors.

"It isn't true," he said, again and again. "It isn't true."

"It may not be true," Altman said, "but it's a fact. And it's the facts that kill you. Do you understand now why we brought you?"

"You want me to tell the Bureau about . . . about *that*."

"The Bureau and anyone that will listen."

"But why me? Why not somebody really important, like one of the diplomats?"

"We tried that. Remember Loughlin Herbert?"

"But he died of a heart . . . Oh."

"When Bentham told us about

you," Firsa Mak said, "you seemed young and strong enough to stand the shock. We've done all we can now, Selden. For years Altman and I have been trying . . ."

"They won't listen to us," Altman said. "They will not listen. And if they keep sending people in, nice well-meaning children and their meddling nannies, not knowing . . . I simply will not be responsible for the consequences." He looked down at Selden from his gaunt and weathered height.

Firsa Mak said softly, "This is a burden. We have borne it, Selden. We even take pride in bearing it." He nodded toward the unseen hills. "That has the power of destruction. Jekkara certainly, and Valkis probably, and Barrakesh, and all the people who depend on this canal for their existence. It can destroy. We know. This is a Martian affair and most of us do not wish to have outsiders brought into it. But Altman is my brother and I must have some care for his people, and I tell you that the Priestess prefers to choose her offerings from among strangers . . ."

Selden whispered, "How often?"

"Twice a year, when the Mad Moon rises. In between, it sleeps."

"It sleeps," said Altman. "But if it should be roused, and frightened, or made angry . . . For God's sake, Selden, tell them, so that at least they'll *know* what they're getting into."

Selden said wildly, "How can

you live here, with that . . ."

Firsa Mak looked at him, surprised that he should ask. "Why," he said, "because we always have."

Selden stared, and thought, and did not sleep, and once he screamed when Lella came softly into the room.

On the second night they slipped out of Jekkara and went back across the desert to the place of rocks, where the copter was waiting. Only Altman returned with Selden. They sat silently in the cabin, and Selden thought, and from time to time he saw Altman watching him, and already in his eyes there was the understanding of defeat.

The glowing domes of Kahora swam out of the dusk, and Denderon was in the sky.

"You're not going to tell them," Altman said.

"I don't know," whispered Selden. "I don't know."

Altman left him at the landing stage. Selden did not see him again. He took a cab to his hotel and went directly to his room and locked himself in.

The familiar, normal surroundings aided a return to sanity. He was able to marshall his thoughts more calmly.

If he believed that what he had seen was real, he would have to tell about it, even if no one would listen to him. Even if his superiors, his teachers, his sponsors, the men he venerated and whose approval

he yearned for, should be shocked, and look at him with scorn, and shake their heads, and forever close their doors to him. Even if he should be condemned to the outer darkness inhabited by people like Altman and Firsia Mak. Even if.

But if he did not believe that it was real, if he believed instead that it was illusion, hallucination induced by drugs and heaven knew what antique Martian chicanery . . . He had been drugged, that was certain. And Lella had practised some sort of hypnotic technique upon him . . .

If he did *not* believe . . .

Oh God, how wonderful not to believe, to be free again, to be secure in the body of truth!

He thought, in the quiet and comforting confines of his room, and the longer he thought the more positive his thinking became, the more free of subjectivity, the deeper and calmer in understanding. By the morning he was wan and haggard but healed.

He went to the Bureau and told them that he had been taken ill immediately upon landing, which was why he had not reported. He also told them that he had had urgent word from home and would have to return there at once. They were very sorry to lose him, but most sympathetic, and they booked

him onto the first available flight.

A few scars remained on Selden's psyche. He could not bear bear the sound of a harp nor the sight of a woman wearing purple. These phobias he could have put up with, but the nightmares were just too much. Back on Earth, he went at once to his analyst. He was quite honest with him, and the analyst was able to show him exactly what had happened. The whole affair had been a sex fantasy induced by drugs, with the Priestess a mother-image. The Eye which had looked at him then and which still peered unwinking out of his recurring dreams was symbolic of the female generative principle, and the feeling of horror it aroused in him was due to the guilt-complex he had because he was a latent homosexual. Selden was enormously comforted.

The analyst assured him that now that things were healthily out in the open, the secondary effects would fade away. And they might have done so except for the letter.

It arrived just six Martian months after his unfortunate dinner date with Bentham. It was not signed. It said, "*Lella waits for you at moonrise.*" And it bore the sketch, very accurately and quite unmistakably done, of a single monstrous eye. ◀

Almost we would omit references to the Grand Old Days of Magazine Science Fiction for fear of conjuring up images that either we or the author of this story are confined to a bath-chair and gout-stool (neither of us is; and mind your clumsy feet)—but accuracy forbids. In the Grand Old Days of Magazine Science Fiction, videlicet the otherwise non-grand 30s, then, a querulous reader wrote to one SF magazine and complained that “Edmond Hamilton is always saving worlds . . .” The implication was not that Mr. Hamilton collected them in a morocco album, but that his stories often dealt with their rescue from evil. Pax. He was and is not only a realist but an optimist—both attributes being manifested in this cool and competent and utterly believable story which links the Science Fiction past with its already beginning-to-be-realized-and-vindicated-present. Edmond Hamilton appears here for the first time since 1954. It is nice to have him aboard again.

Mr. Hamilton writes of himself:

“I sometimes feel like a time-traveller, for this reason: I’m 59 years old, which isn’t so old these days (it isn’t, is it, honest?) But my formative first 7 years were spent on a Ohio farm so far back in, that it must have had a time-lag of a decade. Horses reared up in buggy-shafts at sight of an automobile, and a steam-threshing-machine was a thing which frightened me horribly.

Yet last month I flew home from London in a jet in 5 or 6 hours, and the rockets stand on the launching-pads ready to make for the moon, and only the fact that I was blessed or cursed with a science fictional imagination has prevented me from exclaiming, “Stop the world, etc. . . .”

I wrote my first s-f story when I was 14. It was “The Plant That Was Alive.” It was also Terrible. No one bought it. I was at that time, however, unquenchable. . . . I was a freshman in college and supposed to be a child prodigy, and I took that seriously and loftily ignored study and broke rules and got canned out of school after three years. But I kept trying to write s-f, and in February, 1926, succeeded in selling the old Weird Tales.

What a thrill it was when, a month later, a science-fiction maga-

zine appeared! A couple of years later when a second s-f magazine appeared, I decided to become a professional writer. I'm filled with retrospective admiration for a decision so cosmically heroic and stupid. To make matters worse, my next 42 stories sold without a rejection . . . only then did I start to get the bumps and learn.

But I've stuck to it ever since. I love to tell adventure stories and have told hundreds . . . but every now and then I want to write something quite different. THE PRO is one of the different ones."

THE PRO

by Edmond Hamilton

THE ROCKET STOOD TALL AND splendid, held for now in the nurse-arms of its gantry, but waiting, looking up and waiting . . .

And why the hell, thought Burnett, do I have to think fiction phrases, even when I'm looking at the real thing?

"Must give you kind of a creepy feeling, at that," Dan said.

"God, yes." Burnett moved his shoulders, half grinning. "Creepy, and proud. I invented that thing. Thirty years ago come August, in my "Stardream" novel, I designed her and built her and launched her and landed her on Mars, and got a cent a word for her from the old Wonder Stories."

"Too bad you didn't take out a patent."

"Be glad I didn't," Burnett said. "You're going to fly her. My Stardream was prettier than this one, but only had two short paragraphs of innards." He paused, nodding slowly. "It's kind of fitting, though, at that. It was the Stardream check, all four hundred dollars of it, that gave me the brass to ask your mother to marry me."

He looked at his son, the slim kid with the young-old face and the quiet smile. He could admit to himself now that he had been disappointed that Dan took after his mother in the matter of build. Burnett was a big man himself,

with a large head and large hands and heavy shoulders, and Dan had always seemed small and almost frail to him. And now here was Dan in his sun-faded khakis blooming like a rose after all the pressure tests and the vertigo tests and the altitude tests and the various tortures of steel chambers and centrifuges, tests that Burnett doubted he could have stood up to even in his best days. He was filled with an unaccustomed and embarrassing warmth.

"You won't get to Mars in her, anyway," he said.

Dan laughed. "Not this trip. We'll be happy to settle for the Moon."

They walked on across the sun-blistered apron, turning their backs on the rocket. Burnett felt strangely as though all his sensory nerve-ends had been sandpapered raw so that the slightest stimulus set them to quivering. Never had the sun been so hot, never had he been so conscious of his own prickling skin, the intimate smell of clean cotton cloth dampening with sweat, the grit of blown sand under his feet, the nearness of his son, walking close beside him . . .

Not close enough. Not ever close enough.

It was odd, Burnett thought, that he had never until this moment been aware of any lack in their relationship.

Why? Why not then, and why now?

They walked companionably together in the sun, and Burnett's mind worked, the writer's mind trained and sharpened by thirty-odd years of beating a typewriter for an always precarious living, the mind that could never any more be wholly engulfed in any personal situation but must stand always in some measure apart, analytical and cool, Burnett the writer looking at Burnett the man as though he were a character in a story. Motivation, man. An emotion is unreal unless it's motivated, and this is not only unmotivated, it's inconsistent. It's not in character. People often seem to be inconsistent but they're not, they always have a reason for everything even if they don't know it, even if nobody knows it, and so what's your's, Burnett? Be honest, now. If you're not honest the whole thing, man and/or character, goes down the drain.

Why this sudden aching sense of incompleteness, of not having done so many things, unspecified, for, by, and with this apparently perfectly happy and contented young man?

Because, thought Burnett. Because . . .

The heat waves shook and shimmered and the whitenesses of sand and blockhouse and distant buildings were unbearably painful to the eye.

"What's the matter, dad?" asked Dan, sharp and far away.

"Nothing. Just the light—dazzling . . ." And now the sweat was cold on his big hard body and there was a cold evil inside him, and he thought, Well, hell, yes, of course. I'm scared. I'm thinking . . . Go ahead and drag it out, it won't be any the better for hiding away there inside in the dark. I'm thinking that this boy of mine is going to climb into that beautiful horror back there, not very many hours from now, and men are going to fasten the hatch on him and go away, and other men will push buttons and light the fires of hell in the creature's tail, and that it could be, it might be . . .

There's always the escape tower. Sure there is.

Anyway, there you have it, the simplest motivation in the world. The sense of incompleteness is not for the past, but for the future.

"Sun's pretty brutal here sometimes," Dan was saying. "Maybe you should have a hat on."

Burnett laughed and took off his sunglasses and wiped the sweat-damp out of his eyes. "Don't sell the old man short just yet. I can still break you in two." He put the glasses on again and strode strongly, cleanly, beside Dan. Behind them the rocket stood with its head in the sky.

In the common room of the astronauts' quarters they found some of the others, Shontz who was going with Dan, and Crider who was back-up man, and three or four

more of the team. Others had already left for the global tracking stations where they would sweat out the flight with Dan and Shontz. They were all stamped out of much the same mold as Dan, and that wasn't a bad one, Burnett thought, not bad at all. Most of them had visited in his house. Three of them had even read his stories before they ever met either him or Dan. Now, of course, they all had. It seemed to delight them that they had on their team a top boy whose father was a writer of science fiction. He had no doubt that they had many a private joke about that, but all the same they greeted him with pleasure, and he was glad of them, because he needed some distraction to forget the coldness that was in him.

"Hey!" they said. "Here's the old expert himself. Hi, Jim, how goes it?"

"I came down," he told them, "to make sure you were doing everything according to the way we wrote it."

They grinned. "Well, how does it look to an old pro?" asked Crider.

Burnett pulled his mouth down and looked judicial. "Pretty good, except for one small detail."

"What's that?"

"The markings on the rocket. You ought to light them up brighter, good strong reds and yellows so they'll show up against that

deep, black, velvety, star-shot space."

Shontz said, "I had a better idea, I wanted the top brass to paint the rocket black velvet and star-shot so Them Out There couldn't see us going by. But the generals only looked at us kind of funny."

"Illiterates," said a tall solemn-faced young man named Martin. He was one of the three who had read Burnett's stories. "Cut my teeth on them" he had said, making Burnett feel more ancient than overjoyed.

"Right," said Crider. "I doubt if they ever even watched Captain Marvel."

"That's the trouble," said Fisher, "with a lot of people in Washington." Fisher was round-faced and sunburned and cheerful, and he too had cut his teeth on Burnett's stories. "When they were kids they never read anything but Captain Billy's Whiz Bang, and that's why they keep coming out with questions like, Why put a man on the Moon?"

"Oh, well," said Burnett, "that's nothing new. People said that to Columbus. Fortunately, there's always some idiot who won't listen to reason."

Crider held up his right hand. "Fellow idiots, I salute you."

Burnett laughed. He felt better now. Because they were so relaxed and unworried he could loosen up too.

"Don't get smart with me," he said. "I wrote the lot of you. When you were drooling in your cribs I was making you up out of ink and sweat and the necessity to pay the bills. And what did you do, you ungrateful little bastards? You all came true."

"What are you working on now?" asked Martin. "You going to do that sequel to 'Child of a Thousand Suns'? That was a great story."

"Depends," said Burnett. "If you'll promise to keep the hell out of the Hercules Cluster just long enough for me to get the book written . . ." He counted on his fingers. "Serialization, hard-cover, soft-cover . . . Three years at a minimum. Can you do that?"

"For you, Jim," said Fisher, "we'll hold ourselves back."

"Okay, then. But I tell you, it isn't funny. These probes peering around Mars and Venus and blabbing everything they know, and some smart-assed scientist coming up every day with a new breakthrough in psionics or cryogenics or see-tee or FTL drives . . . it's getting tough. Nowadays I have to know what I'm talking about, instead of just elaborating on a theory or making something up out of my own head. And now my own kid going to the Moon so he can come back and tell me what it's really like, and there will go a dozen more stories I can't write."

Talking, just talking, but the

talk and the hearty, grinning young faces did him good and the coldness in him was gone . . .

"Have faith, Dad," said Dan. "I'll find you something down in the caverns. A dead city. Or at the least an abandoned galactic outpost."

"Well, why not?" said Burnett. "Everything else has happened."

He grinned back at them. "I'll tell you one thing, science fiction is a tough living but I'm glad it all came true while I was around to see it, and to see how the people who laughed at such childish nonsense took it. The look of blank shock on their little faces when Sputnik first went up, and the lovely horror that crept over them as they gradually began to realize that Out There is a really big place . . ."

He was not just talking now, he felt a throb of excitement and pride that his own flesh and blood was a part of this future that had so suddenly become the present.

They talked some more and then it was time to go, and he said goodbye to Dan as casually as though the boy was taking a shuttle hop between Cleveland and Pittsburgh, and he went away. Only once, when he looked back at the rocket, very distant now like a white finger pointing skyward, did the fear wrench at his guts again.

He flew home that night to Cartersburg, in central Ohio. He

sat up very late talking to his wife, telling her about Dan, how he had looked and what he had said and how he, Jim, thought Dan was really feeling.

"Happy as a clam at high tide," he told her. "You should have come with me, Sally. I told you that."

"No," she said. "I didn't want to go."

Her face was as calm and relaxed as Dan's had been, but there was a note in her voice that made him put his arms around her and kiss her.

"Quit worrying, honey. Dan's not worried, and he's the one that's doing it."

"That's just it," she said. "He's doing it."

Burnett had an extra drink or two to sleep on. Even so he did not sleep well. And in the morning there were the reporters.

Burnett was beginning to not like reporters. Some of them were friendly guys, and some were just guys doing a job, but there were others . . . especially those who thought it intriguing that a science fiction writer should have fathered an astronaut.

"Tell me, Mr. Burnett, when you first started to write science fiction, did you really believe it would all happen?"

"That question's a little sloppy, isn't it?" said Burnett. "If you mean, did I think space-travel would happen . . . yes, I did."

"I've been reading some of your early stories. Managed to get hold of some of the old magazines . . ."

"Good for you. Some of them are selling for nearly as much as I got for the stories. Go ahead."

"Well, Mr. Burnett, not only in your stories but in almost all the others, I was struck by the faith in space-travel they showed. Tell me, do you think the science fiction you chaps wrote helped make space-travel come true?"

Burnett snorted. "Let's be realistic. The big reason why rockets are going out now, instead of a century from now, is because two great nations are each afraid the other will get an advantage."

"But you feel that science fiction did *something* to bring it about, don't you?"

"Well," said Burnett. "You could say that it encouraged unorthodox thinking and sort of prepared the mental climate a little for what was coming."

The reporter had finally made his point and seized triumphantly upon it. "So that one might say that the stories you wrote years ago are partly responsible for the fact that your son is going to the Moon?"

The coldness came back into Burnett. He said flatly, "One might say that if one wanted some sappy human interest angle to add to the coverage of the moonflight, but there's not any truth in it."

The reporter smiled. "Come

now, Mr. Burnett, your stories surely had some influence on Dan in making his choice of a career. I mean, having been exposed to these stories all his life, reading them, listening to you talk . . . wouldn't all that sort of urge him into it?"

"It would not and it did not," said Burnett. He opened the door. "And now if you'll excuse me, I've got a lot of work to do."

When he shut the door, he locked it. Sally had gone off somewhere to avoid the whole thing and the house was quiet. He walked through it to the back garden and stood there staring hard at some red flowers and smoking until he could hold his hand steady again.

"Oh, well," he said aloud, "forget it."

He went back into the house, to his own room, his workroom—he had never called it a study because he didn't study in it, he only worked—and shut the door and sat down in front of his typewriter. There was a half-written page in it, and six pages of copy beside it, the groping and much x-ed-out unfinished first chapter to the sequel of "Child of a Thousand Suns". He read the last page, and then the page in the typewriter, and he put his hands on the keyboard.

A very long time later he sighed and began almost mechanically to type.

Later still Sally came in and found him sitting. He had taken that page out of the typewriter but he had not put another one in, and he was just sitting there.

"Troubles?" asked Sally.

"Can't seem to get the thing going, is all."

She shook him gently by the shoulder. "Come and have a drink, and then let's get the hell out of this house for a while."

She did not often talk like that. He nodded, getting up. "Drive in the country might do us good. And maybe a movie tonight." Anything at all to get our minds off the fact that tomorrow morning is lift-off if the weather is right. Already Dan has slipped out of our grasp into the strange seclusions of the final briefing.

"Did I urge him?" he said suddenly. "Did I, Sally? Ever?"

She looked at him startled, and then she shook her head decisively. "No, Jim, you never did. He just naturally had to go and do this. So forget it."

Sure. Forget it.

But Dan did get his horizons stretched young. And who's to say what minute seed dropped so carelessly along the way, a single word perhaps, written for two cents or one cent or half a cent, and long forgotten, may by devious ways have led the boy to that little steel room atop a skyrocket?

You might as well forget it, for there's nothing you can do.

They had the drive in the country, and they ate something, and they went to the movie, and then there was nothing to do but go home and go to bed. Sally went to bed, anyway. He did not know if she slept. He himself stayed up, sitting in his workroom alone with his typewriter and a bottle.

All around him on the walls were the framed originals of cover paintings and interior illustrations from his stories. There was one from "Stardream", written long before Dan was born, showing a beautiful white rocket in space, with Mars in the background. Underneath the pictures were rows of shelves filled with the end results of more than thirty years of writing, marching battalions of yellowing pulps a little frayed at the corners, paperbacks, the respectable hardcovers with their shiny jackets. This room was himself, an outer carapace compounded from his needs and his dreams, the full times when his mind flowed ideas like a spring river and the times of drought when nothing came at all, and always the work which he loved and without which he would cease to be Jim Burnett.

He looked at the empty typewriter and the pages beside it and he thought that if he was going to sit up all night, he ought to go on with the story. What was it that Henry had said, years ago. . . . "A professional is a writer who can tell a story when he doesn't feel

like telling a story." That was true, but even for an old pro, there were times. . . .

At some time during the dark hours Burnett fell asleep on the couch and dreamed that he was standing outside the closed hatch of the capsule, pounding on it and calling Dan's name. He couldn't get it open, and he walked angrily around until he could look in through the port and see Dan lying there in the recoil chair, a suited dummy with a glittering plastic head, his gloved hands flicking at rows of toggles and colored levers with a cool unhurried efficiency that was unpleasantly robot-like. "Dan," he shouted. "Dan, let me in, you can't go off without me." Inside the plastic helmet he saw Dan's head turn briefly, though his hands never stopped from arranging the toggles and levers. He saw Dan's face smiling at him, a fond but somehow detached smile, and he saw the head shake just a shade impatiently. And he heard Dan answer, "I'm sorry, Dad, I can't stop now, I've got a deadline." A shield or curtain, or perhaps a cloud of vapor from the liquid hydrogen moved across the port and he couldn't see Dan any more, and when he hammered on the hatch again he was unable to strike it hard enough to make the slightest sound.

Without warning, then, he was a long distance away and the

rocket was going up, and he was still shouting, "Dan, Dan, let me in!" His voice was swallowed up in thunder. He began to cry with rage and frustration and the sound of his tears was like rain falling.

He woke to find that it was morning and a small thunderstorm was moving through, one of those little indecisive ones that change nothing. He got up rustily, wondering what the hell that dream was all about, and then looked at his watch. A little less than two hours to launch.

He had one quick one to untie the knots in his stomach and then put the bottle away. Whatever happened, he would watch it sober.

Damned queer dream, though. He hadn't been worried at all, only angry.

Sally was already up and had the coffee on. There were dark smudges under her eyes and the age-lines seemed to stand out clearer this morning than they usually did, not that Sally was old but she wasn't twenty any more either, and this morning it showed.

"Cheer up," he said, kissing her. "They've done this before, you know. Like eight times, and they haven't lost anybody yet." Immediately, superstitiously, he was sorry he had said it. He began to laugh rather too loudly. "If I know Dan," he said, "if I know that kid, he's sitting in that capsule cooler than a polar bear's nose in January, the

only man in the country that isn't

He shut up too abruptly, and the phone rang. *The phone.* They had long ago shut off the regular one, silencing the impossible number of relatives and friends and wellwishers and reporters and plain pests, and this one that rang was a private thing between them and the Cape. He picked it up and listened, watching Sally standing frozen in mid-floor with a cup in her hands, and then he said, Thank you, and put it down.

"That was Major Quidley. Everything's Go except the weather. But they think the cloud-cover will pass. Dan's fine. He sends his love."

Sally nodded.

"We'll know right away if they call off the shot."

"I hope they don't," Sally said flatly. "I don't think I could start this all over again."

They took their coffee and went into the living room and turned on the television and there it was, alone and splendid in the midst of the deserted field, the white flanks gleaming softly, touched around with little nervous spurts of vapor, and high above, so high, so small atop that looming shaft, the capsule thrust impatiently toward the clouds.

And Dan was in there, suited, helmeted, locked away now from man and parent earth, waiting, watching the sky and listening for the word that would send him rid-

ing the thunder, bridling the lightning with sure hands, out into the still black immensity where the stars. . . .

Oh, Christ. Word stuff, paper stuff, and that's neither words nor paper in that goddam little coffin, that's my son, my kid, my little dirty gap-toothed boy with the torn britches and the scabs on his knees, and he wasn't ever intended to ride thunder and bridle lightning, no man is. Pulp heroes were all made of wood and they could do it, but Dan's human and soft and easily broken. He hasn't any business there, no man has.

And yet in that fool dream I was mad because I couldn't go too.

T-minus forty and holding. Perhaps they'll call it off. . . .

Announcers' faces, saying this and that, stalling, filling up time, making ponderous statements. Personages making ponderous statements. Faces of people, mobs of people with kids and lunches and bottles of pop and deck chairs and field glasses and tight capri pants and crazy hats that wanted to blow off in the wind, all watching.

"They make me sick at my stomach," he snarled. "What the hell do they think this is, a picnic?"

"They're all with us, Jim. They're pulling for him. And for Shontz."

Burnett subsided, ashamed. "Okay," he grumbled, "but do they have to drink orange soda?"

The announcer pushed his

headphone closer to his ear and listened. "The count is on again, ladies and gentlemen, T-minus thirty-nine now and counting. All systems are Go, the cloud-cover is beginning to break up, and there comes the sun . . ."

The announcer vanished and the rocket was there again. The sun struck hard on the white flanks, the sharp uplifted nose.

Dan would feel that striking of the sun.

T-minus thirty and counting.

I wish I could write this instead of watching it, Burnett thought. I've written it a hundred, two hundred, times. The ship rising up on the hammering flames, rising steady, rising strong, a white arrow shafting on a tail of fire, and you know when you write it that it's going to do just that because you say so, and plunge on into the free wide darkness of space and go where you damned well tell her to without any trouble.

T-minus twenty and counting.

I wish, thought Burnett, I wish.

He did not know what he wished. He sat and stared at the screen, and was only dimly aware when Sally got up from beside him and left the room.

Ten. Nine. And that's science fiction too, that countdown going backwards, somebody did it in a movie or a story decades ago because he thought it would be a nice touch. And here they are doing it.

With my kid.

Three, two, one, ignition, the white smoke bursting in mushrooming clouds from beneath the rocket, but nothing happening, nothing at all happening. But it is, the whole thing's starting to rise, only why does it seem so much slower than the others I watched, what's wrong, what the hell is wrong . . .

Nothing. Nothing's wrong, yet. It's still going up, and maybe it only seems slower than the other times. But where are all the emotions I was sure I was going to feel, after writing it so many times? Why do I just sit here with my eyes bugging and the palms of my hands sweating, shaking a little, not very much but a little . . .

Through the static roar and the chatter, Dan's voice cutting in, calm and quick. All systems Go, it looks good, how does it look down there? Good, that's good . . .

Burnett felt an unreasonable flash of pure resentment. How can he be so calm about it when we're sweating our hearts out down here? Doesn't he give a damn?

"Separation okay . . . second-stage ignition okay . . . all okay . . ." the level voice went on.

And Burnett suddenly knew the answer to his resentful wonder. He's calm because he's doing the job he's trained for. Dan's the pro, not me. All we writers who daydreamed and babbled and wrote about space, we were just

amateurs, but now the real pros have come, the tanned, placid young men who don't babble about space but who go up and take hold of it . . .

And the white arrow went on upward, and the voices talked about it, and it was out of sight.

Sally came back into the room.

"It was a perfect shot," he said. And added, for no reason he could think of, "He's gone."

Sally sat down in a chair, not saying anything, and Burnett thought, What kind of dialogue is that for a man who's just seen his son shot into space?

The voices went on, but the tension was going out of them now, it looks good, it looks very good, it's good, they're on their way . . .

Burnett reached out and snapped off the television. As though it had been waiting for the silence, the phone rang again.

"You take it, honey," he said, getting up. "Everything's okay for now, at least. . . . I might as well get back to work."

Sally gave him a smile, the kind of a smile a wife gives her husband when she sees all through his pretenses but wants to tell him, It's all right, go on pretending, it's all right with me.

Burnett went into his workroom and closed the door. He took up

the bottle in his hands and sat down in his padded chair in front of the typewriter with the empty roller and the neat stack of clean yellow sheets on one side and the thin pile of manuscript on the other. He looked at it, and he turned and looked at the shelves where thirty years of magazines and books and dreams and love and sweat and black disappointment were lined up stiff and still like paper corpses.

"Your stories surely had some influence on Dan in making the choice of his career?"

"No," said Burnett loudly, and drank.

"Wouldn't all that sort of urge him into it . . . your son . . . going to the Moon . . ."

He put the cork in the bottle and set it aside. He stood up and walked to the shelves and stood by them, looking, picking out one thing and then another, the bright covers with the spaceships and the men and girls in their suits and helmets, and the painted stars and planets.

He put them back neatly into their places. His shoulders sagged a little, and then he beat his fist softly against the shelves of silent paper.

"Damn you," he whispered. "Damn you, damn you . . ."

STOMATA

by Theodore L. Thomas

STOMATA ARE TINY PORES THAT exist in plant tissue. They occur mostly in the leaves, but they also occur in the epidermis of young stems, flowers, and fruit. Each stoma may range in size from 8 to 40 microns depending on the plant species. Since a micron is a thousandth of a millimeter, a square centimeter of leaf surface will contain from a few thousand to a hundred thousand stomata.

Each stoma lies between two cells known as guard cells. The double cell walls of guard cells vary in thickness and elasticity from one part of the cell to another. When the guard cell walls swell, they move away from each other and thus open the stoma. When the guard cell walls are limp, the stoma is closed. Such factors as light, temperature, and internal water supply of the leaf cause the guard cells to swell or relax. Daylight normally opens the stomata unless low temperatures or low internal water supply overrides the effects of light and keeps them closed. In some of the cactuses the stomata open only at night to conserve water.

Carbon dioxide is taken up by the plant through the open stomata, and through them oxygen is discharged. In the mechanism called transpiration, water taken up by the roots is discharged to the air through stomata. Scientists have recently discovered that the open stomata also serve to cool the leaf during transpiration.

It is clear that the stomata are something like the pores in a human skin, but no one has taken the one for a model of the other. A tinkering with the chromosomes in human skin cells might produce some wonderful results. We could all breathe through the skin. We have a fine, large surface exposed to the good air, and transpiration would keep us cool the way perspiration does now. With a bit of additional chromosomal tinkering, we might be able to extract oxygen from water by means of our pores. Back to the oceans we would go, each man to his own temperature choice and his own surroundings. And if some nourishment could also be absorbed through the skin, why, none of us would have to work for a living.

From masterly Master Damon Knight, now flourishing on what Henry Clay called "the generous soil" of Kentucky, comes this small triangularly-shaped bijou of a tale about fickle Robert, charming Giselle, and Yana . . . whose talents were perhaps more revealing than revealed.

MAID TO MEASURE

by Damon Knight

COTE D'AZUR SUNLIGHT, FILTERED by the jalousies, made a golden dimness in the room. On the green brocade chaise lay a slender blonde in tennis costume, swinging a racquet in her hand. Each time she swung it, it went *thump* on the floor.

"I wish you wouldn't do that," said the bearded young man irritably. "I've spoiled this damn postcard twice." He threw a colorful bit of cardboard at the wastebasket, and drew another toward him across the writing desk.

"I wish you wouldn't make cow's eyes at aging brunettes in bars," said the girl. There was a gleam of spite in her big blue eyes.

"Aging!" said the young man automatically, pausing in his work.

"She must have been thirty if she was a day," said the girl. *Thump* went the tennis racquet.

"Umm," said the young man, looking up.

"Umm, hell!" said the girl. Her expression had grown definitely unpleasant. "I've got half a mind—"

"What?" asked the young man apprehensively.

"Oh, nothing." After a pause, she said, "Mother would have known what to do with you. She was a witch."

The young man clucked his tongue disapprovingly, without looking up. "Shouldn't talk about your old mother that way," he said.

"She was a *witch*," the girl said. "She could turn herself into a wolf, a tiger, a ton of bricks, or anything she liked."

"Sure, she could," said the young man, signing his postcard. "There we are." He put the card aside, lit a cigarette, and glanced rather nervously at his watch. "All kidding aside, Yana—we've had a pretty good time—"

"But all things come to an end?" the girl asked in a dangerous voice.

"We're both grownups? We ought to be realistic? Is that it?" She stood up and went to the closet.

"Well—" said the young man uncomfortably. His expression brightened. "What are you doing?"

The girl pulled out a pigskin suitcase and opened it with unnecessary vehemence. She rummaged in one of the pockets, drew out a worn chamois bag. "Looking for something," she said.

"Oh," said the young man, disappointed. He watched while the girl opened the drawstrings, took out a small object wrapped in a dirty red cloth and tied with string. He glanced at his watch again; when he looked up, the girl had a small, oddly shaped bottle in her hand.

"What's that?"

"Something my mother left me," the girl said. Her fingernails gritted unpleasantly on the glass as she scraped the wax off and removed the stopper. She gave him a narrow look. "So you won't change your mind?"

"Now, Yana—"

"Then here's luck." She put the bottle to her lips, tilted her head back and swallowed.

"Now then," she said, lowering the empty bottle, "let's see . . ." She flexed one hand experimentally, looking at her long nails.

The young man was inspecting his watch. "Almost three o'clock," he muttered. "Yana, didn't you say you were going to the hairdresser's this afternoon?"

"I changed my mind." She looked at him thoughtfully. "Why—are you expecting anyone?"

"Oh, no," the young man said hastily. He stood up energetically. "Tell you what, Yana—no hard feelings—let's go for a swim."

"I see," said the girl. "Tell me, what about tonight—no plans? No one coming over?"

"No, not a thing."

"So, we'll be all alone—just the two of us." She smiled, showing her pointed eyeteeth. "That will give me plenty of time to decide. What

IT'S CORRECT TO CLIP!

Filling in the coupon on the next page offers the following advantages:

1. **Guaranteed monthly delivery to your door of the best in science fiction and fantasy reading.**
2. **Reduced rate—it's cheaper to subscribe than to buy your copies at the newsstand.**
3. **An essentially unmarred copy of this issue—the coupon is backed up with this box, and its removal does not affect the text of the surrounding material.**

shall I be, darling—your great big stripy pussycat . . . your dinner jacket . . . or your faithful, hungry dog?"

The young man, who was peeling his shirt off over his head, did not hear. His voice came indistinctly. "Well, if we're going for that swim, let's get moving."

"All right," the girl said. "Wait a minute, and I'll change into a bikini."

Emerging from the shirt, the young man said, "Glad you decided not to be—" He looked around, but the girl was not in the room. "Yana, Yana? That's funny." He crossed the room, glanced into the bedroom, then the bath. They were empty.

A light tapping came at the French doors as the young man turned. They opened, and a pretty dark-haired young woman put her head in. "Robert? I am not intruding?"

"Giselle!" cried the young man,

smiling with pleasure. "No, come on in—you're right on time. I was just about to go for a swim."

The young woman advanced with a charming smile; her figure, in a low-cut blue sun dress, also was charming.

"Oh, it's too bad," she said; "I have no suit."

"Here's one," said the young man cheerfully, picking up two candy-striped bits of material from the chaise. "Try that one for size."

"But doesn't it belong to your—little friend? Won't she mind?"

"No, no—don't give her another thought."

As they were leaving, the young man glanced with an odd expression at the striped bikini, which fitted the dark girl admirably.

"What is it, anything wrong?"

"Just thought of something Yana said before she left. . . . No, it couldn't be. Well, come on!"

Arm in arm, laughing, they went out into the sunlight.

Mercury Press, Inc., 347 East 53 Street, New York, N. Y. 10022

F-10

Send me The Magazine of FANTASY AND SCIENCE FICTION.

I enclose \$4.50 for one year

\$11.00 for three years.

Name

Please print

Address

City State Zip #

BOOKS



THE ANCIENT ENGINEERS, L. Sprague de Camp, Doubleday, \$4.95

The cover squib describes this as "a fascinating account of the advance of technology from the earliest times to the Renaissance"—and for once I am in full agreement. L. Sprague de Camp, that man of many marvels—traveler, historian, linguist, novelist, scientist—is also a founder of the American Society for the History of Technology (I hope I've got that right). He gives us here 408 fascinating pages of quick and lively prose (with many fascinating illustrations) on a subject of infinite importance. If you are one of the many who think, though not deeply, that invention came in only with the industrial revolution, and that the ancients devised nothing but wheels, walls, catapults, chariots, and maybe here and there a galley, go thou to this book and learn better. You'll enjoy it, too.

ORPHANS OF THE SKY, Robert A. Heinlein, Putnam, \$3.50

Herewith another We-don't-usu-

ally. We don't usually review reprints of twenty-three-year-old magazine serials which also appeared thirteen years ago in paperback. However, we do when the item in question is a modern classic. I well recall this one's appearance in *Astounding* (now *Analog*, children), with the famous cover of the two-headed mutant, Joe-Jim. The story then bore the titles **UNIVERSE** and **COMMON SENSE**, and a closer look at the credits informs me that only **UNIVERSE** was reprinted in paperback.

I knew a man who confessed to me ruefully, that he was unable to read Aristotle because the thought kept occurring to him, "But the medieval philosophers said the same things!" Of course they did; they had read them in Aristotle. And unless one is lucky enough to come on **ORPHANS OF THE SKY** as a newcomer to SF, the impression is going to occur and re-occur, "But X and Y and Z said the same things!" Of course they did; they read them in Heinlein. Such is likely to be the fate of any pioneer whose ideas are so new that he inspires a host of others—others, who

in turn, inspire others yet. Is a reading of ORPHANS, then, likely to prove no more than either a venture into nostalgia or a scholastic exercise of the Ph.D.-ing sort? Answer: No. It's still a good story. And how many of those whom Heinlein influenced have equalled him? Not many.

In brief, this is the story of Hugh Hoyland, born on and born to the Ship. The Ship is who knows how old and who knows how big. Big enough to *be* a universe, old enough for its origins to have been forgotten. Not quite forgotten, but as good as. The old books are interpreted as allegories by the faithful and derided as myths by the rationalists. The possibility that anything exists outside the Ship (or that the Ship has an outside) is not merely denied, it is unheard of. Meanwhile, beyond the "civilized" areas of the Ship live the hated and hunted Muties—who hate and hunt right back—a scroungy, dopey lot, mostly. Except for Joe-Jim, SF's best proof of the adage that two heads are better than one. Joe-Jim *knows* that the Ship is a Ship, only, but can't do anything with his knowledge. And Hugh is the (at first, unwitting) catalyst which brings about the prophesied reaction.

There are at least four Basic Traditional SF Elements in this last paragraph alone, and so far as I know, Heinlein originated them all right in this book (He may also

here have originated the dreary practice of telling money in "credits"—though I hate to think it of him.) He goes right on doing this sort of thing, drat the man, too. It is fascinating to compare his writing of what I shall term his Late Early Period with his current work. In terms, not of his work as a whole, but of individual books, I'm afraid that we cannot always say of him as of Job, that the Lord has blessed his latter end more than his beginning. Considering the magnitude and magnificence of ORPHANS' concept, I am a little disappointed in the limitations of its conclusion. Even Aristotle nods.

A STAR CALLED THE SUN, George Gamow, Viking, \$5.75

This book is not for those who complain that Dr. Asimov's articles have too many numbers in them, hi, Ike. It is also full of stuff about parallaxes and carbon cycles, variability curves, and hierarchies of eddies. Unlike the works of Professor Willy Ley, it is unrefreshed with anecdotes. But even though it lacks the human touch it contains a lot of good, solid information. Author is professor of physics at the University of Colorado.

COME BACK, DR. CALIGARI, Donald Barthelme; Little, Brown, \$4.95

This volume leaves me at my usual loss for words. It belongs to

the New Wave, or maybe New Ripple, or perhaps New Drip, school of short story writing. Never mind looking for a plot. You'll be lucky if you find a beginning or a middle or an end. There are elements reminiscent of the old Dos Passos, Joyce, Da-Da-ism, collages, marijuana, Dali, and, well, an Interior Monologue going on in some neither safe nor sanitary snake-pit. I have often quoted from the caption of the famous *Punch* cartoon about the Curate's Egg. May I now tell it in full? Victorian curate was breakfasting with the bishop. Says the Bishop, "I'm afraid that's a bad egg you have there, Mr. Jones." Says the Curate, "Oh, no, my lord, I assure you, parts of it are very nice." Well, parts of this semi-indescribable book are very nice. Parts of them are *damned* nice. In fact, we may just reprint either **THE PIANO PLAYER** or **THE JOKER'S GREATEST TRIUMPH** (indignant letter from East Weewaw, Wisconsin, *I buy your magazine to be entertained not bewildered*). Although there are some great lines in some of the other stories, too. Milton Glaser's jacket design is very appropriate.

ROCKETS AND SPACECRAFT OF THE WORLD, Michael Chester, Norton, \$3.95

principally at "young readers", but it contains much which is informative for readers of any age who are neither scientists nor technicians. The fact that I found it so myself, whom our Science Editor cheerfully terms a "scientific illiterate", ought not to condemn the volume out of hand. There are many of us who cannot meet Dr. Asimov's exacting standards. The book's eleven chapters include those on Satellites, Men in Orbit, Moon and Planet Probes, Solid [fuel] Rockets, Liquid [fuel] Rockets, and Guidance Systems; as well as many beautifully clear illustrations and charts. "As a result [of the TIROS weather satellites alone]," the author says, already "we can predict the movements of dangerous storms, the drift of ice floes, and the effects of weather on our farm crops . . . our exploration of the solar system will provide information of tremendous importance to the growth of industry, medical science, and agriculture."

MAROONED, Martin Caidin, E. P. Dutton, \$4.95

After spending about one month in trying to read this volume I must now confess that I have been unable to complete it. Possibly this is because it is a novel of the sort in which the protagonist is not a human being but a salmon, an otter, a fire, a storm, or other *reræ natura*. The protagonist here is not astro-

This book is evidently aimed

naut Pruett at all, really, but our entire national space program; Pruett is not really a human being but the personification of the events in which the author has him participate. There is a certain moving picture quality about it, but no moving picture would ever be as grimly thorough as this one seems to be. "Now get in there, boy, and fight!" "We'll show them!" "But don't those fools in Congress realize—?" "Meanwhile, back in the rocket ship . . ." —These subtitles rise before my eyes. If you want to follow this program inch by liquid oxygen fueled inch from past through present into what I am sure must be an impeccably logically extrapolated future, to find out why Pruett's retro-jets won't fire, and if he is rescued before all his air gets used up, why, then, godspeed to you, and let me know how it comes out, some of yez. The curious thing is that, while I cannot read the blasted book, I nevertheless retreat from it with respect. Can it be that Mr. Caidin has almost succeeded in telling me more about space travel than I care to know?

TALISTES TROPIQUES, Claude Lévi-Strauss, Atheneum, \$2.45, illus.

"People generally think of travel in terms of displacement in space, but a long journey exists simultaneously in space, in time, and in the social hierarchy," writes this distinguished French savant, the sub-

title of whose book, *an anthropological study of primitive societies in Brazil*, merely states the subject in minimal terms. I address myself to it in maximal ones. Lévi-Strauss traces the science of anthropology to what he considers its origins in the confrontation of post-Columbian European philosophers with the coastal Indians of Brazil; I am a very long way from being the first to point out the importance which that science must have in the confrontation of intelligent life elsewhere in the universe—some first-rate SF has been written by anthropologists such as Chad Oliver. (In fact, there is even a sfnal note in this line about the Bororo Indians: *The aije is a mythical monster of the aquatic deep, repellent, evil-smelling, and affectionate: it appears before the budding [medicine-man] and forces him to endure its caresses . . .* ! Do you suppose any Bororo found their way to legend-haunted Innsmouth? Or, for that matter, any *aije*?) Even the old shibboleth of black and white may not hold fast, for what shall we expect of extra-terrestrials when some Indians consider red and yellow as more-or-less the same color, and blue as sometimes a shade of black and sometimes of green?

There is a fascinating and provocative glimpse of "the paleo-Eskimos whose culture is evocative of archaic China and the Scythians"—and an absolutely startling paragraph: *We now know that com-*

munications between . . . Alaska and Siberia . . . went on without interruption. Towards the beginning of the Christian era, iron tools were in use in Alaska, though the natives there knew nothing of metallurgy; similar types of pottery may be found from the region of the Great Lakes . . . to Central Siberia, as can also the same legends, the same rites, the same myths. At a time when the West lived shut in upon itself, it would appear that all the northern peoples, from Scandinavia right across to Labrador, by way of Siberia and Canada, were in close and constant contact with one another [!] *If the Celts took certain of their legends from that sub-Arctic civilization, of which we know almost nothing, we can understand why it is that the Grail cycle is closer to the Indian myths which flourished in the forests of North America than to any other mythological system. Nor is it, in all probability, by chance that the Lapps are still building conical tents identical with those of the North American Indians.*

And, later, "Probably, therefore,

these three regions—Indonesia, the American north-east, and Scandinavia—formed the trigonometrical points of the pre-Columbian history of the New World." And, "Everything points . . . to the hypothesis that, while the Atlantic remained in total silence, a humming as of innumerable bees could be heard all around the periphery of the Pacific."

There are other startling notions of M. Lévi-Strauss—for example, that "the primary function of writing . . . has been the enslavement of other human beings." I should like Mr. John Campbell's opinion on this subject. One or two other sparks—"Rousseau, of all the philosophes, came nearest to being an anthropologist; "and that all man has done since the neolithic age (during which he "put himself beyond the reach of cold and hunger [and] he acquired leisure to think") is to transfer to famine and war the equilibrium previously maintained by plague.

Sloppy but intriguing cover design by Joseph Low; translation by John Russell.

—AVRAM DAVIDSON



It is always too long between R. Bretnor stories, and the lapses between R. Bretnor stories about Papa Schimmelhorn can be described only as inordinate. It was in the Winter-Spring 1950 issue of F & SF that "that lusty, and, we fear, somewhat bawdy octogenarian" (as Anthony Boucher called him) caused the gnurrs to come from the voodvork out by playing on his doodle-pipe. What the Swiss genius is up to right now, we dare hardly guess. However, by great good fortune we are able to bring to our readers a past chapter in the rich and fascinating life of Papa Schimmelhorn which might otherwise have escaped their attention. Mr. Bretnor's merry and ingenious prose herewith introduces us to the Fledermaus family, a cuckoo and collateral branch of the Schimmelhorns, and to its most outstanding member. . .

LITTLE ANTON

by R. Bretnor

THE DAY BEFORE LITTLE ANTON was due to arrive at Ellis Island the Board of Directors of the Luedesing Time and Instrument Corporation of New Haven met in special session to determine the fate of his great-uncle, Papa Schimmelhorn.

Through gold-rimmed spectacles, old Heinrich Luedesing glared at his son Woodrow, at the Board, and at Captain Perseus Otter, U.S.N. "I haff said vun thousand times," he puffed, "und now I say again—*nefer vill I*

fire Papa Schimmelhorn. He iss a chenius!"

"Now now, Dad," soothed Woodrow Luedesing, forcing his features into their second-best Dale Carnegie smile, "it's just that things have changed. Remember, we aren't simply the old Luedesing cuckoo clock factory any more. We've converted. We've retooled. New capital has come into the firm. We have a contract—the contract—to make those super-secret Wilen scanners for the Navy. It's stuff that takes

© 1951, by Henry Holt & Company, Inc.

high-powered scientific know-how. It can't be handled by a cuckoo clock technology."

Obstinately, old Heinrich shook his head.

"Well, Dad." The smile, slipping out of gear, was instantly replaced by proper filial sympathy and sorrow. ". . . We didn't want to have to force the issue. But . . ." Woodrow shrugged, ". . . you leave us no alternative. After the Captain gives us the Navy point of view, we'll have to call a vote."

Captain Perseus Otter rose, jutting sharply forward as he did so. This accentuated his amazing likeness to Lord Nelson—or rather to a figurehead of Nelson carved by some sculptor of strongly anti-British tendencies. It was an unfortunate singularity, cruelly noticed by a long succession of superior officers and by all the ladies who might have married him. It had turned him into a bitter man.

Captain Otter fixed old Heinrich with the sort of gaze usually reserved for derelicts which refuse to sink. "Mr. Luedesing," he snapped, "eight weeks ago, I approved your promotion of this man Schimmelhorn from foreman to superintendent of production. In my opinion, he was not qualified for the position. He is eighty years of age. He left school at eleven. His IQ is that of a high-grade moron. His moral character

is reprehensible. However, I deferred to your judgment. Here, sir, are the results."

He removed two gadgets from his brief case. "As you are aware, the critical element in the Wilen scanner—the part which enables us to detect every ship and aircraft, friend or foe, within a thousand miles—is Assembly M. It is so secret that none of us knows what it contains, so secret that it must be manufactured entirely by sealed automatic mechanisms. These machines were installed by Schimmelhorn. He alone has been told how they function. All we know," the Captain's voice quivered with righteous wrath, "is that Assembly M is supposed to come out in *one* piece instead of two—and that *there should be no clockwork in it!*"

The table buzzed. The gadgets passed from hand to hand—a seamless silver ovoid with six slender porcelain legs, and a toadstool-shaped vacuum tube full of odd bric-a-brac, in the center of which several brass gears were clearly visible.

"I shall summarize," declared Captain Otter. "*One*, the gears do not belong within the tube. *Two*, the tube belongs *inside* the unit, where it is now impossible to put it. *Three*, we shall have to bring Wilen himself down from M.I.T. to remedy the situation. And *four*—" As though an unattired mer-

maid had cut across his bows, he blushed. "—since Thursday, Mr. Luedesing, there have been twenty-eight complaints from female employees. Schimmelhorn is continually molesting them."

"Papa Schimmelhorn does not molest women," fumed old Heinrich. "He chust makes passes."

Captain Otter folded his arms. "I shall state the Navy's attitude simply and directly. Mr. Luedesing, *Schimmelhorn must go!*"

Immediately afterward, by a vote of eight to one, the members of the Board decided to retire Papa Schimmelhorn, complete with gold watch, pension, and signed testimonial. Then, at Woodrow Luedesing's suggestion, they sent for him to tell him the good news.

Papa Schimmelhorn was twice as big as Heinrich Luedesing. He was attired gloriously in hound's-tooth-check trousers, green plaid sports coat, and devastating orange shirt—and on his ruddy cheek, midway between his left eyebrow and his huge white beard, there was a smear of lipstick.

He seated himself casually on a corner of the table, and put an arm around old Heinrich's shoulders. "Alvays, Heinrich, vith such nincompoops you shpend your time. Iss bedter you come vith Papa Schimmelhorn, to see dot new blonde in der shipping office. I tell you—" he pointed at

the Captain and favored the Directors with an enormous wink, "—she would make efen dot sailor come to life!"

Captain Perseus Otter fizzed slightly, like something starting to go off. And Woodrow Luedesing, trying to assume a friendly but executive expression, stepped into the breach.

"We've been discussing you, Mr. Schimmelhorn," he purred. "We have been concerned about you—your advanced age, the strain of adjusting yourself to the swift pace of modern industry, the impact of new problems too complex for your simple skills. It is sad but true that sooner or later the torch of progress must be passed on by the failing hands of those who have so bravely carried it. The Luedesing Time and Instrument Corporation, Mr. Schimmelhorn, wants your few remaining years to be *happy* ones. As General Manager, I—"

There was a cheerful bellow from Papa Schimmelhorn. "Heinrich, such nonsense Voodrow talks! I tell you vot he needs," he raised a ham-like, and by no means failing, hand, "vun goot lesson on der backside. Dot iss enough!"

Woodrow Luedesing, paling slightly, scurried to shelter in Captain Otter's lee. Several directors quickly pushed chairs between themselves and Papa Schimmelhorn.

"*Nein, Papa, nein.*" A tear splashed on old Heinrich's thick mustache. "It iss now too late. You do nodt vork here any more! You haff been retired, vith a pension, und a gold vatch, und maybe a diploma."

"At my recommendation," put in Captain Perseus Otter loftily.

"*Ach, zo?*" Papa Schimmelhorn didn't seem the least bit stricken. "Heinrich, now ve undershtand. It iss because of Voodrow, who iss ashamed of cuckoo clocks. It iss alzo—" he looked the Captain up and down, "—because of *him*. He iss chealous because he cannot get a girl like oder sailors!"

Two of the directors snickered, and Captain Otter began to fizz again. But old Heinrich was not comforted.

"I haff told them, Papa, that vithoudt you der vorks break down. I haff told them how you haff been a chanitor at der Geneva Institute of der Higher Physics, where you listen to der Herr Professors and become a chenius. But der Captain says der dingus iss all wrong . . ."

Chuckling, Papa Schimmelhorn turned his back on the directors. "You listen, Heinrich. I haff vun improfement made. From these dunderheads I keep it zecret. But, at der Institute, three veeks I miss because I meet a vidow vith red hair, zo," he tapped his skull. "Something iss nodt in here, und der inzide of der dingus iss shtill

oudt. Don'dt vorry, Heinrich, I vill fix. I vill see my friend Albert, in New Chersey. He vas a shmart boy in Schvitzerland—almost, like me, a chenius. Right after I bring Liddle Anton I vill see him."

From his pocket he took a tinted photograph, showing a plump, slightly cross-eyed infant peering knowingly at a buxom nurse. "Here iss Liddle Anton," he exclaimed proudly. "Eighteen pounds when he vas born! Und now they are exborting him from Schvitzerland to me und Mama, so he grows up to be a fine man, und nodt like Voodrow."

He rose, bright blue eyes twinkling at the Board. "Don'dt you be angry vith them, Heinrich. Soon they make a big mess—and then they beg me to come back, und everything iss fixed. Und then," he slapped his mighty chest, "oh, ho-ho-ho! Maybe, if he is goot, I show dot sailor how to catch a girl!"

When Papa Schimmelhorn appeared at Ellis Island and asked for little Anton Fledermaus, the authorities concerned immediately abandoned a boatload of assorted immigrants to expedite his mission personally.

He noticed nothing unusual about this. Waiting, he flirted with a dark girl from Marrakech and congratulated himself on escaping beyond the reach of Mama Schimmelhorn's steely eye and stiff black umbrella.

Largely on the strength of Little Anton's photograph, he had equipped himself with a mechanical turtle, a gaudy lollipop, and a work involving a character named *Willie Wabbit*. Therefore he paid no heed when he saw two uniformed attendants gingerly urging forward an overgrown cherub who had suddenly erupted into the most revolting stage of adolescence. This youth wore knickers and a jacket three sizes too tight for him, and carried no luggage except a toothbrush in his breast pocket. The attendants led him up to Papa Schimmelhorn, blurted, "He's all yours," and hastily withdrew.

Taking off his cap respectfully, the youth addressed Papa Schimmelhorn as "dear great-uncle." Then, in a voice alternating between a tortured treble and a bullfrog bass, he made a little speech in German, conveying the best wishes of numerous relatives and promising that he would be a good boy and do what he was told.

"LITTLE ANTON!" Papa Schimmelhorn released the girl from Marrakech. He embraced the youth exuberantly. He held him at arm's length for a pleased inspection. "Little Anton, *how you grow!*"

Little Anton retreated out of reach. "Boy-oh-boy!" he said. "Am I glad *that's* over."

"But—but you shpeak *Eng-lish?*"

"Natch," growled Little Anton. "I see the gangster pitchers. That Dutch stuff I gave you was for effect."

"Oh, ho-ho-ho! To think I bring a lollipop and a toy turtle!" Papa Schimmelhorn was convulsed. "Der goot choke iss on me!"

Little Anton peered at the girl. For a moment, his eyes crossed. "Pop," he snickered, "it sure woulda been if I hadn't come along. Well, my stuff's due later—so kiss her good-by and let's take in a burleycue."

These evidences of precocity delighted Papa Schimmelhorn. He pinched Miss Marrakech, who simpered prettily in Arabic. He took Little Anton fondly by the arm.

"Und now," he said, as they took leave of Ellis Island, "ve go to see my goot friend Albert in New Chersey. Dot must come first, before der burleycue. Und on der vay I tell you all aboutt America—"

At once, he told the story of Cheorge Washington und der cherry tree—and this led him, naturally, into the subject of his own career. By the time they reached Penn Station—where they paused to reclaim a worn carpetbag and a large shoe box from the checkroom—Little Anton had been made acquainted with the private lives of several festive ladies of Berne, New Ha-

ven, and points in between. By the time they reached Jersey, he had been briefed on the necessity for a united male front against Mama Schimmelhorn's domestic tyranny. And, before their train had been ten minutes under way, he had received technical information on the Wilen scanner, the bare, uncensored thought of which would have given Captain Perseus Otter a conniption fit.

He heard all this with half an ear. Occasionally, he rumbled an "uh-huh" or squeaked out a "no kiddin'?" Once, looking at his great-uncle in open admiration, he exclaimed, "Yuk-yuk! When I get to your age, Pop, I wanna be an old goat just like you." But he spent most of his time staring at fellow passengers, usually feminine ones, letting his eyes cross, and making such pithy comments as "woo-woo!" or "phooey."

Finally, though, Papa Schimmelhorn tapped the shoe box resting on his knees, and said, "Zo, Little Anton, dot iss why I bring vun dingus only—because it iss zo zecret. It vill do eferything dot I haff told aboutt, alzo anoder trick vvhich iss a big surprize."

Little Anton's eyes widened. Focusing on the shoe box, they crossed slightly. "Yipe!" he remarked. "You got it right here with you, huh?" Then, with evident pleasure, he jerked his thumb over his left shoulder. "Hey, I betcha that's why that little bas-

tard in the corner's been tailing us!" he cried. "I betcha he's a spy."

Papa Schimmelhorn was not just a genius. He was a genius with *savoir faire*. Turning calmly, he squinted at the undersized, sallow individual three seats behind them. Instantly he was amused. "Dumkopf!" he guffawed. "Chust because he follows, it does nott mean der liddle bastard iss a shpy. Haff you nott heard about der FBI? Dot's vot he iss. It iss security."

"Nuts to you, Pop," retorted Little Anton loudly. "I seen G-men in pitchers. They don't look like what you catch in rat traps."

"Ho-ho!" Papa Schimmelhorn slapped his thigh; his merriment resounded through the car. "Der FBI iss clefer, Liddle Anton. Dot iss a disguise!"

By now, all eyes were on them, and comments were being freely made on every hand. This seemed to embarrass the little man. For a few seconds he wiggled in his seat. Then, pulling his pork-pie hat down over his ears, he scuttled out and vanished.

After that, the tumult gradually subsided, and the other passengers, losing interest, went back to their newspapers and naps.

Papa Schimmelhorn patted Little Anton on the head. "You are a foolish boy," he told him. "Vhen you are older iss time maybe to vorry aboutt shpies. Iss bedter now you leaf it all to me."

"Foey," muttered Little Anton. "I guess you think you're the only genius in the family. Well, Pop, don't say I didn't tell you." And he withdrew into himself, to stare at his feet and pick moodily at an occasional pimple.

Papa Schimmelhorn did not chide him for his rudeness. Leaning his elbows on the seat ahead, he started to read the copy of *Newsweek* which its stout, spectacled occupant was holding. For several minutes, lips moving slowly, he scanned the pages while the magazine's owner frowned and fidgeted.

Suddenly, just as the man was about to turn a page, Papa Schimmelhorn reached out and clutched his arm. "Vait! Donnerwetter, dot iss Albert!" His free hand pointed at a picture of a kindly old soul badly in need of a haircut. "Hold shtill, I vant to read . . ."

The man squirmed and made futile angry noises—and Papa Schimmelhorn plowed through a paragraph which stated that Professor Albert Einstein had gone to Harvard to deliver a series of lectures on his new gravitational theory.

"Always I know dot he iss shmart!" Letting go, Papa Schimmelhorn shook his head wonderingly. "Now they haff made him a professor—imachine it!"

As his erstwhile victim, spluttering, removed across the aisle, he sat back sharply. "Ach, Lidtle

Anton, it iss a choke on us. For two veeks, Albert iss away! Ve must get off at der next station, und take der train inztread to Massachuzetts. At vunce I shpeak to der conductor."

He expressed this resolve firmly, and he would certainly have put it into execution—if the brunette had not come in.

She was a very well-turned brunette, a bit like those who used to undulate through the earlier efforts of Cecil B. DeMille, but with modern upholstery. She wore something spectacularly black, dangled long scarlet earrings, and carried a neat overnight bag. As she came slithering up to them, her slanting eyes seemed to search each face longingly. Then they found Papa Schimmelhorn's and rested there. Passing by, she gave him a lingering, torrid smile.

Papa Schimmelhorn took a deep breath and looked at Little Anton. Little Anton uncrossed his eyes, drooled, and said, "Yummy." Momentarily, at least, *rapport* was re-established.

The brunette took the seat once occupied by the small, sallow man. Her perfume drifted forward to them powerfully.

It made the hairs in Papa Schimmelhorn's big ears quiver. "Lidtle Anton," he said decisively. "I haff ideas . . ."

"Me too!" croaked Little Anton. ". . . und vun idea iss dot she

iss going to Atlantic City, for der beautdy condests. Und anoder iss dot Albert iss very busy vith his grafity. Maybe ve should nodt bother him in Massachuzetts. It would be rude. In two weeks he comes back. Iss plenty time. Ve, you und I, take maybe a vacation by der sea. Maybe ve go to this Atlantic City, where are such inderesting people. You can learn all aboutt America . . ."

The Lorelei Hotel was neither the finest nor the most fashionable in Atlantic City. Its days of glory had departed with the bloomer bathing suit, and now it catered to retired clergymen, lieutenant colonels' widows, and people in modest circumstances with four or more children.

Papa Schimmelhorn and Little Anton, falling into none of these categories, were welcomed coldly by the management. A grim Nantucket clerk inspected them, demanded payment in advance, and had them whisked so quickly through the lobby's purple plush and potted palms that they failed to see the brunette and the small man in the pork-pie hat registering in their wake.

Papa Schimmelhorn surveyed their room with satisfaction. Appropriating the bed nearest the window, he unpacked his carpet-bag, taking from it a gay aloha shirt, a pair of sandals, a suit of flowered puce pajamas which he

suspended from the gilded gas-and-electric chandelier, and a cuckoo clock. This last, with the aid of a large nail and a shoe heel, he hung upon the wall.

"Chust like at home," he sighed—and waited for Little Anton to say something complimentary.

But there was no reply. Instead, behind him, he heard a sharp, metallic click. He turned—and gasped.

Kneeling on the floor, Little Anton was unlocking the first of three enormous suitcases.

"Where—?" exclaimed Papa Schimmelhorn. "Where did you get *those*?"

"Switzerland," said Little Anton placidly.

"But—*Gott im Himmel*—How?"

"I wanna be a smuggler. I'm practicing. When I'm real good, I'll sneak Chinks in over the border. But this'll do for now. You're a genius, Pop, you can figger the technique out in no time."

He opened the first suitcase. "Watches," he stated smugly. "Two hunerd of 'em, duty free." He opened up the second. "French post cards," he announced. "They oughta go like hot cakes."

Papa Schimmelhorn took one quick look. "No vunder they ex-borted you from Schwitzerland," he muttered, turning crimson.

"My clothes and stuff," finished Little Anton, indicating the third suitcase. "They'll keep till later."

But Papa Schimmelhorn said nothing more. He sat down on his bed, and, while Little Anton busily took inventory, he ransacked his mind for scraps of information about his grand-nephew. Once in a while, he recalled, Mitzi Fledermaus had mentioned her small son in letters to Mama. Little Anton had been an imaginative child, dreaming funny dreams, claiming to have playmates whom he alone could see, disappearing for hours on end mysteriously. And hadn't there been some odd business about shoplifting, which nobody could prove?

Papa Schimmelhorn's brain whirred and clicked, considering all these matters together with such other data as the lad's uncanny mastery of colloquial English. He came to a conclusion.

"*Mein* Little Anton," he began sweetly. "I haff been thinking. Where iss vun chenius in der family iss maybe more . . ."

Little Anton was stuffing packages of post cards in his pockets. "Now you're catching on," he granted without pausing.

". . . und right away, when you arrife, I say, 'Our Little Anton iss zo smart, a child protigy. Someday he iss a chenius chust like me.'"

"Pop," said Little Anton, "you don't know the half of it."

Papa Schimmelhorn's voice became deeply serious. "Ve chenius-

es must shtick together, Little Anton. I vill teach you eferytthing I know, und you—" he rubbed his hands, "—vill show me how iss vorked der little suidcase trick."

"Yuy-yuk!" crowed Little Anton. "You sure got a corny line, Pop." He moved toward the door.

"Vait, Little Anton!" cried Papa Schimmelhorn. "Where are you going? Iss nine o'clock."

"I'm gonna peddle feelthy peectures," replied Little Anton, patting his bulging pockets. "This looks like just the place, and I need lettuce. And don't you worry none about the cops. They can't touch us wholesalers." He turned the knob. For a fraction of a second he crossed his eyes. "Wanna know something about that mouse aboard the train, Pop?" he asked. "*She's got a cuckoo tattoed on her tummy!*"

Abruptly the door closed behind him, and he was gone—leaving his great-uncle with an imagination nicely titillated, and an even tougher problem on his mind.

"Would you belief it?" marveled Papa Schimmelhorn. "A cuckoo on der tummy. How beaudtiful!"

Like a caged tom-tiger, he started pacing up and down. *How* did the boy know? And how could that know-how be pried out of him? There—there had been something—something in one of Mitzi Fledermaus' letters, about how little Anton, then aged four, had

been reprov'd for prattling of a corner around which no one else could see. Perhaps—

Papa Schimmelhorn stopped pacing. Changing to sandals and aloha shirt, he stretched his huge frame on the bed in order to attack the problem comfortably. Presently, the cuckoo on the wall popped in and out and sang ten times, marking the hour . . .

And, almost at once, there came a tiny knocking on the door.

"Ho-ho?" boomed Papa Schimmelhorn. "Little Anton, you are back zo soon?"

The door opened. But Little Anton did not enter. Instead, there stood the brunette. She was clad in cocktail pajamas of black and red, vaguely Chinese in motif, fitting her like a snake's new skin.

Her eyes went wide as she saw Papa Schimmelhorn. Her hand flew to her lips. "Oh!" she cried out. "I—I must have the wrong room!"

Papa Schimmelhorn bounded to his feet. His beard almost swept the floor as he bowed. He assured her gallantly that, from his point of view, quite the reverse was true.

Suddenly she smiled. "Why, I know *you*. The conductor told me you were going to Princeton. You're the professor who was on the train."

Papa Schimmelhorn hung his head modestly: "I am nodd a pro-

fessor. I am chust a chenius. I haff nodd gone to Princeton because mein friend Albert Einstein iss avay."

"A—a genius! Oooh!" Somehow the door seemed to close itself behind her. "Then you know all about *science*, don't you? I mean about geometry and physics and—well, *everything*?" She clasped her hands together. "Please, may I come and talk to you sometime, when—when you aren't busy inventing your new theories?"

Her voice was deep, disturbing—rather like Edith Piaf with whipped cream. It set the follicles of Papa Schimmelhorn's beard to tingling. "I haff chust finished der quota for this veek!" he roared gleefully. "Ve can talk now—"

He came toward her, eyes focused on her midriff. He took her gently but very firmly by the elbow.

"Oh, Professor," she breathed, "I'm just so *lucky*."

Deciding to be subtle, he led her to a chair. "Der name iss Schimmelhorn," he cooed, "but you can call me Papa."

"My name is Sonya—er, that is, Sonya Lou."

"I call you Lulu. Dot iss easier. Don't vorry, I show you a goot time. I call der bellboy right avay for popcorn."

"I just *adore* popcorn," said Sonya Lou.

He rang for room service. He sat down on the chair's arm beside

her. He let his right hand wander to her waist.

She looked up at him. "Now you shall tell me about *science*," she whispered fervently.

Papa Schimmelhorn's left hand moved to join his right. Its index finger hovered over her bright pajama jacket's second button. "Ve shtart," he told her, "by talking aboutt birds. I luff der liddle birds—zo cute! Shparrows and pipshqveaks und robin-red-chests. But ezpecially—" he gave the button an experimental tweak, "—dear liddle cuckoos."

Ferdinand Wilen's arrival in New Haven coincided closely with Papa Schimmelhorn's departure—and, at first, these two events seemed to do wonders for Captain Perseus Otter. He now jutted forward jauntily, as though, after a perilous and weary voyage, he had been dry-docked and given a fresh coat of paint. His likeness to the Hero of Trafalgar became even more striking than before. He even made an effort to resume his fruitless courtship of a lush divorcée named Mrs. Bucklebank.

But two days passed—and three—and four. And on the fifth day Captain Otter found himself once more in the presence of old Heinrich Luedesing and of the Board. Only now they were reinforced. Wilen sat there, with a nervous tic and bags under his

eyes. So did a vice admiral, bluff-bowed and broad in the beam. And two rear admirals. And a big, ruddy officer whose fourth row of gold braid was topped off with a loop.

The three admirals, obviously, were giving Captain Otter the deep freeze. The other officer, just as obviously, was trying to conceal what amounted to an utter fascination.

"Dr. Wilen," rapped the vice admiral, "please make your report."

Wilen's thin hands wrestled with each other on the table. "I've checked everything," he said hysterically. "I've gone over it four times—every servo-mechanism, every relay, each power supply and part and process—*everything*. And all I've found is a little waste space, and four terminals that don't lead anywhere." He gnawed his nails. "It ought to work, really it ought to! And—and it still turns out my tubes with *c-c-clockwork* in them, no matter what I do! And they're still outside when they should be *in*. Oh, ha-ha-ha-ha-ha!"

He collapsed sobbing; and the vice admiral turned to Otter.

"Well?" he said.

Captain Otter shivered and said nothing.

"Speak up, Otter. Did you or did you not recommend the retirement of this—er, this Papa Schimmelhorn?"

"Yes, sir. But . . ."

"Do you realize, Otter, that the Wilen scanner is a project on which we are engaged jointly with the British? As you have perhaps heard, they are our allies. They have gone to the trouble, Otter, to send their largest carrier over here—H.M.S. *Impressive*, commanded by this gentleman." He inclined his head toward the gold braid with the loops. "Captain Sir Sebastian Cobble, C.B. She's in New York harbor, equipped with everything except Assembly M. Assembly M must be installed aboard her in two days. Forty-eight hours, Otter. See to it. I'm holding you responsible."

There was a sigh, possibly of relief, from Woodrow Luedesing.

"I was given to understand, Admiral—" Captain Perseus Otter was very pale,—"that my duties here were advisory. I have done what I could. I have even sent a man to search for Schimmelhorn. Beyond that . . ."

"Come, come, Otter! It's scarcely our tradition to push off our responsibilities, especially on civilians. Do you mean to tell me that since you came here you have been nothing but a figurehead?"

There was a sharp crack as Captain Sir Sebastian Cobble, C.B. bit his pipestem through.

"Certainly *not*, sir," sputtered Captain Otter.

"Well, then, you should have no trouble. Find this Schimmelhorn,

have him fix this Assembly M or whatever it is, and get it aboard *Impressive* right away."

While the vice admiral was saying this, a secretary had entered and whispered something in old Heinrich's ear. Now, I am zorry," he announced unhappily. "Papa Schimmelhorn ve haff nodt found, but Mama Schimmelhorn iss here. If you vant, I bring her in."

"By all means," nodded the vice admiral. "She may have information."

Old Heinrich left the room and returned immediately escorting a very straight old lady in stiff black taffeta. She was armed with an umbrella, and there was fire in her eye.

"Chentlemen," said Heinrich Luedesing, "I like you to meet Mama Schimmelhorn."

The admirals rose.

Mama Schimmelhorn surveyed them. "*Gobs*," she remarked disapprovingly. "Drinking und chazing girls und making noise at night."

There was a display of self-restraint. "Ma-am—" the vice admiral bowed. "I am delighted. I am sure that you can be of help to us. We must find your husband . . ."

"Ha!" The sharp ferrule of Mama Schimmelhorn's umbrella tapped the floor. "Dot no-goot! Fife days he iss away—und here iss vot I get!" Opening a black, beaded reticule, she fished out a post card, and passed it to him.

It was not one of Little Anton's. It was a picture of the Taj Mahal. On one of the windows, a big X had been scrawled. And, on the reverse, there was a message which, roughly translated, read: *Haffing shvell time. Vish you vas here. X iss our room. Luff und kisses, your goot husband, Papa. (Alzo Lidtle Anton.)*

"But he forgets der postmark!" cried Mama Schimmelhorn. "Atlantic City! Chust vait!"

The vice admiral thanked her. He promised to deliver Papa Schimmelhorn into her fond custody. Then he turned again to Captain Perseus Otter.

"Well, we know where he is," he declared. "Take my advice, Otter. If it's agreeable to Sir Sebastian here, he can take you aboard *Impressive*, and put to sea. Contact the shore patrol at Atlantic City. They'll help you pick up Schimmelhorn. I hear he has one of the assemblies with him, so that's all settled. Now do you see how simple it all is?"

"Dot's vot I told you." Old Heinrich smiled and nodded. "Don't worry. Papa Schimmelhorn will fix."

"I shall sail at four, sir," said Captain Sir Sebastian Cobble, eyeing Captain Otter dubiously.

But Dr. Ferdinand Wilen said never a word. Staring intently at a point in space, he was busily vibrating his lower lip with a forefinger.

While the inventor of Assembly M was puzzling himself into this tizzy at New Haven, Papa Schimmelhorn and Little Anton were by no means idle in Atlantic City.

Day by day, Little Anton's smuggled stock of watches and French post cards dwindled, while his newly acquired roll of bills fattened correspondingly.

Day after day, too, Papa Schimmelhorn pursued Sonya Lou, or Lulu. He tempted her, successively, with feats of strength, accounts of his past conquests, light refreshments, and burning words of love. He even, on two occasions, gave her flowers.

And nothing worked, not even the desolate (and absolutely false) complaint that Mama Schimmelhorn did not understand him. So far as he was concerned, the cuckoo tattooed on her tummy remained a mystery.

He took it in his stride, confiding cheerfully in Little Anton late at night.

"You listen, Little Anton," he would say. "Vith dot girl Lulu iss something wrong upshtairs. Ima-chine! Always she talks of scienze, scienze, scienze."

"Eight hunerd and sixty, and eighty, and a hunerd—makes nine hunerd," Little Anton would reply, counting his ill-gotten gains. "Not bad for three days' work, huh, Pop?"

"Maybe I pinch a lidtle—she says, 'No, no. Tell me aboutt der

relativity.' Maybe I bite her ear—she says, 'Don't think of me. I chust adore der dingus in der box—vot iss der princible?' Ach, Little Anton, such a voman! It iss nodt natural."

Then, "Ya know what?" Little Anton would remark. "I betcha she's a spy."

And so it went until the afternoon before Captain Otter's painful experience with the admirals. Little Anton had sold out all his post cards except an assorted package of three dozen, and he was taking a well-earned rest in the lobby of the Lorelei. Deep in a chair behind a potted palm, eyes crossed luxuriously, he was examining the more interesting features of three plump young matrons gossiping some yards away.

Suddenly, almost in his ear, he heard a voice. It was low and vibrant, and he recognized it instantly as Sonya Lou's.

"But, Boguslav," she was protesting, "I *have* been using Technique Forty-four, just as the *Handbook* says. Can I help it if the old fool won't respond? All he wants to do is pinch and feel and take my clothes off. My God, I'm black and blue all over!"

A man's voice answered her. "Then you have blundered, Sonya. In the *Handbook*, his classification is *Beast, Bourgeois, Individualistic, Subtype Seven-C*. Therefore it is the correct technique."

Very quietly, Little Anton swiv-

eled round. Forgetting the young matrons, he peeked through palm leaves—and saw a pork-pie hat.

The man's voice hardened. "The *Handbook* is based on Marxist ideology. It is never wrong. You know the penalty for failure, do you not?"

"Of course I do." She laughed nervously. "I'm not giving up—I have another date with him tonight. But—oh, why couldn't it be that stupid boy of his instead? I could use Technique One—you know, in bed with nothing on—the shoe box in advance—and you could come and rescue me in time." She groaned. "At least I wouldn't have to wrestle for a week."

For a few moments Little Anton's face assumed the pale cast of thought. Then, silently, he took the post cards in his hand and pushed them through the leaves and dropped them in Boguslav's coat pocket.

Presently, when the little man left the hotel alone, he followed him.

That night Sonya Lou did not keep her date with Papa Schimmelhorn. He waited twenty minutes, thirty, thirty-five. He paced the floor. Finally, calling her room and finding she was out, he shrugged his shoulders philosophically. "Iss plenty fishes in der sea," he told himself. "Der cuckoo iss tattooed, zo it vill wait."

With that, he thought of a manicurist whom he had carefully cultivated as a spare, poured out half the bag of hard rock candy which he had purchased that afternoon as bait, and, humming cheerily, went off to her apartment.

Her almost certain lack of avian adornment did not spoil his evening in the least—and he was in a mellow mood when he came back to the hotel at four A.M. He smiled tolerantly at Little Anton's untouched bed, tumbled into his own, and slept the sleep of conscious virtue until noon.

On awakening, his first thought was of Sonya Lou. Picking up the phone, he shouted. "Goot morning!" to the clerk. "Iss Papa Schimmelhorn. I want to shpeak to Lulu!"

"Miss Mikvik checked out two hours ago," said the flat Nantucket voice clammily. "The management would like to know when you intend to follow her example."

"Vot?" The cuckoo on the abdomen—so beautiful!—took wing and disappeared, perhaps forever. "Where did she go?"

"No forwarding address," snapped the receiver. It clicked offensively, and all was still.

Papa Schimmelhorn replaced it on the hook. He understood immediately that his magnetic personality had been too much for Lulu. It had aroused hidden passions of which she was afraid, and she had run away. Pityingly, he hoped the

poor girl would never realize what she had missed.

He sat up and stretched, intending to give Little Anton a useful pointer about Life and women—and found that Little Anton was still among the missing. "Ach, vell," he thought, "boys vill be boys. He iss vith some high zchool girl—necking und pedting like der liddle dofes—zo cutel!"

Full of sentiment, he dressed, brushed out his beard, and went to lunch. *En route*, a headline caught his eye:

**RED DIPLOMAT ARRESTED
HERE! Obscene Pictures 'Dirty
Wall Street Plot' Declares Iron
Curtain Attaché!**

He looked more closely:

July 12: [he read] Boguslav V. Popopoff, Rungarian consular commercial attaché, is currently in Atlantic City's jail charged with possession of three dozen pornographic post cards described by arresting officers as "the hottest we've seen yet."

Picked up late yesterday on a tip furnished by an unidentified teen-ager whom he allegedly approached as a potential customer, Popopoff was . . .

"Tsk-tsk, how inderesting," said Papa Schimmelhorn, as he continued on his way, to spend the balance of the afternoon along the

boardwalk and the beach, surrounded by a giggling coterie in negligible bathing suits, each one of whom he graciously permitted to pull his whiskers, feel his gigantic biceps, and steal a kiss.

It was not until after supper, when he was returning dreamily to the hotel, that other matters forced themselves upon his mind. A gray jeep whipped around a corner, slammed on its brakes, and skidded alongside. Its pair of shore patrolmen regarded him with some astonishment.

"I reckon you're Pappy Schimmelhorn?" one of them said.

"Der vun und only, Chunior—dot's me!"

"Hop aboard, Pappy. You're comin' for a ride. The Navy wants you bad."

"Go away!" laughed Papa Schimmelhorn, stepping back a pace. "Der funny pants I do notd like. Alzo I am too old."

"Look, Pappy." The jeep began to snort impatiently. "We ain't *recruitin'* you. Ther's big brass in a hurry back at your hotel. Now tuck the spinach in and come along."

"Ach, dot iss different." At once, Papa Schimmelhorn guessed that Captain Otter was in need of help. "He wants to ask me how to catch his girl. Of course I come!"

He vaulted in. The jeep took off. Beard streaming in the wind, he was whisked back to the Lorelei, where the shore patrolmen accompanied him directly to his door.

He entered with a flourish. "Vell, sailor boy," he roared, spying Captain Perseus Otter, "now you haff goot senze! Soon, when I teach you, der women vill run after you like flies." His gaze moved to the right. "Und you bring a friend!" he cried delightedly. "A cholly Chack Tar! Goot, ve get him a date too." He looked between them. "Oh, ho-ho-ho! Und here iss Lidtle Anton, der naughdy boy, who iss oudt all night."

Captain Otter rose. A mild case of seasickness had made him rather green around the gills. He looked as though he had spent some years under a moldering bowsprit in the Sargasso Sea.

"Mr. Schimmelhorn." He tried heroically to smile. "This is Captain Sir Sebastian Cobble, commanding His Majesty's Ship *Impressive*, now lying-to offshore."

Papa Schimmelhorn and Captain Cobble shook hands, expressing mutual pleasure.

"Clever lad you have here," said Sir Sebastian, gesturing at Little Anton with his pipe. "Frightfully well informed. We've been discussing smuggling—fascinating—interested in it since I was a boy."

"He iss pregocious," bragged Schimmelhorn. "It iss in der family. Myzelf—"

Hastily, Capatin Perseus Otter intervened. "I fear that I have failed to make our purpose clear. It is not—er, recreation. Certain

—um—*difficulties* have come up in the plant, and —well, the long and short of it, ha-ha, is that we now want you to fix the assembly you have with you as soon as possible, and install it aboard *Impressive* right away.”

“Ha, zo der vorks iss fouled?” laughed Papa Schimmelhorn. “I told you zo. Vell, don’t you vorry, sailor boy, when Albert back to Princeton comes, ve fix. Iss chust ten days, und ve can make some vhoopee vwhile ve wait.”

“*Ten days?*” Captain Otter thought dismally of his number on the promotion list. “It’s an emergency. You’ll have to do it by tomorrow noon. *Please, Mr. Schimmelhorn.*”

“Dot iss impossible. Der inzide iss shtill oudt. I get der dingus, und I show you vhy—”

Little Anton shifted uncomfortably. “Hey, Pop . . .”

“Shh, Lidle Anton. When I am busy, do not inderrupt.” Papa Schimmelhorn was on his knees, searching beneath his bed. “How stranche! I hide der shoe box here before I go, because it iss a zecret. Now where iss?”

“Pop.”

“Shudt up! Maybe iss on der oder side . . .”

“Pop.” Little Anton said, “you might as well get up. Your shoe box isn’t there.”

There was a dreadful hush.

“Where d’ya think I been all night? That Sonya Lou of yours

was after it—she was a spy. I peddled it to her . . .” Little Anton smirked and licked his chops. “But not for money, Pop. Uh-uh.”

“Vot?” bellowed Papa Schimmelhorn. “Vot haff you done?”

“Incredible!” Captain Cobble cried, ruining another pipestem permanently.

“*Treason!* Cold-blooded treason!” gasped Captain Perseus Otter, turning an even more livid color than before.

“Aw, keep yer britches on.” Little Anton remained unperturbed. “I sealed that shoe box good. I betcha she’s halfway to Europe with it now. But they won’t find no dingus in it. What kinda sucker do you think I am?” He pointed at the bare nail protruding from the wall. “Anyvthing secret about a cuckoo clock?” he said.

Captain Otter wiped the cold sweat from his brow. His momentary vision of Boards of Inquiry and of Naval Courts started to dissolve. “You—you mean?” he stutered. “*It’s still here?*”

“Right in Pop’s carpetbag.” Little Anton swelled his chest. “I guess I’m pretty sharp, huh, Cap?”

Papa Schimmelhorn reached in the carpetbag. He found the silver ovoid instantly. He reached in again, and felt around—and brought his hand out empty. “But here iss only half.” He frowned. “Where iss der rest of it?”

“Oh, *that.*” Little Anton smiled superciliously. “I fixed it, genius.

I put it back inside where it belongs."

"Nonsense!" exclaimed Papa Schimmelhorn.

"Okay, you don't believe me." Sneering, Little Anton held out a hand. "Gimme."

He took Assembly M. His eyes crossed quite appallingly. His fingers made one quick and curious movement . . .

And there was the tube, complete with clockwork, out again.

"Betcha you don't know how it's done!" he challenged them.

But Captain Perseus Otter was not interested. "My boy," he said, not unemotionally, "these little technical details can wait. You have done splendidly. I personally will mention you in my report. But now we have important work to do." He tapped his watch. "We'd best be under way."

And, as they headed for the sea and *H.M.S. Impressive*, he told himself that now, at least, their troubles were all over.

He had forgotten the brass gears in the tube.

Thirty-six hours after Papa Schimmelhorn and Little Anton put to sea, the Chief of Naval Operations flew in from Washington. Accompanied by two harried persons from the State Department, he stormed into the office of that vice admiral who had made life so difficult for Captain Otter, and, in the most unfriendly tone imaginable, said, "Well?"

The vice admiral shuddered and said nothing.

"Speak up, Marlinson. You are aware that the British are our allies, are you not? You understand that, like most seafaring people, they much prefer to keep their naval craft afloat? And you admit, I trust, that it is to our interest to help them do so?"

"Y-yes, sir—but . . ."

"May I remind you, Marlinson, that we've had Otters in the Navy since the Revolution? Surely you have heard of Commodore Columbus Otter, who sailed his squadron into the Susquehannah River and disappeared, a feat no other officer has duplicated? And of Commander Leviathan Otter, who went down with the monitor *Mugwump* in Charleston harbor in 1863, quite certain that he was putting in to Portland, Maine? And of Lieutenant Ahab Otter, who so clearly demonstrated the impracticability of diving submarines with their hatches open?" He raised his voice. "And knowing all this, Marlinson," he roared, "you ordered Captain Perseus Otter
ABOARD A SHIP!"

Shamefacedly, the vice admiral hung his head.

"And not just *any* ship. Fully aware of his remarkable appearance, you ordered him aboard a *British* ship . . ."

The Chief of Naval Operations continued for several minutes more, deploring the effete age

which prohibited such picturesque and useful customs as keel-hauling and flogging through the fleet. Then—

"Marlinson," he said, "H.M.S. *Impressive* picked up your people on Wednesday, at 22:04. At 23:18, we received a strange radiogram. It read, SCANNER WORKS STOP PUTTING TO SEA FOR MORE EXTENSIVE TESTS STOP ARRIVE NEW YORK NOON FRIDAY STOP PAPA SENDS LOVE TO MAMA STOP (SIGNED) COBBLE. There has been nothing since. Every available air and surface craft has searched without success. We can only conclude that H.M.S. *Impressive* has gone down with all hands. There will be grave international repercussions, Marlinson."

"I can just hear Mr. Churchill now," groaned the first State Department man, "in Parliament."

"And *Pravda*," said the second, somberly. "And Senator McCarthy. And—and Mr. Bevan."

"Don't even *think* of it . . ."

The Chief of Naval Operations rose to go. "We've kept this secret, Admiral Marlinson, so far. But after noon today it must come out. It's your responsibility. Therefore you will accompany the British naval attaché when he goes out to meet their ship. When she does not show up, you will explain why she isn't there. After that, you can report to me in person."

They left; and, half an hour

later, the vice admiral dismally stepped aboard the burnished barge which, he was sure, fate had chosen to witness one of the closing scenes of his career. The British naval attaché was there, attended by two aides, sundry officers of his own staff, and a pert ensign in the Waves. So were Heinrich Luedesing and Woodrow Luedesing and Ferdinand Wilen, somewhat calmer now.

Disciplining his voice, he greeted them. The barge cast off; and, all the way down the bay, he prayed devoutly for a miracle. But, when minutes ahead of time the point of rendezvous was reached, the sea was bare.

The naval attaché searched the horizon with binoculars. "Strange," he said, "very strange. She really ought to be in sight by now."

Everyone else made similar remarks.

Only Vice Admiral Marlinson was silent. The seconds passed. High noon came nearer quite remorselessly. Anxiety appeared on every face but Heinrich Luedesing's.

Finally, when only fifteen seconds still remained, the Admiral braced himself. He drew the naval attaché aside. "It is my painful duty . . ." he began. He stopped to wipe his brow. "It is my duty—"

He had no chance to finish. There was a shrill squeal from the little Wave, a general cry—

"By God, *there she is!*" exclaimed the attaché, pointing excitedly to port.

And there, scarcely a cable-length away, long and gray and grim, lay *H.M.S. Impressive*. Her crew was mustered on the flight deck for review. Her band was striking up *God Save the King*. And, over all, a foghorn voice was shouting, "ACH, HEINRICH! HERE I AM! YOO-HOO! BLOW DER MAN DOWN! SHIP AHOY!"

Within two minutes, the dazed vice admiral was being piped aboard. In less than three, he had met Papa Schimmelhorn and Little Anton, both wearing jaunty sailor hats with *H.M.S. Impressive* on their ribbons. In five, he had recovered to the point where, drawing Captain Perseus Otter slightly to one side, he could demand, "Where in the name of all that's holy HAVE YOU BEEN?"

Captain Otter was unshaven. He wore his cap at an angle which, on any junior officer, he would strongly have disapproved. But there was a new light in his eye.

"At sea, sir!" said he.

"Indeed?" barked the vice admiral, warming up. "Are you aware, sir, that every blessed plane and ship and State Department clerk has been searching for you from hell to breakfast since you disappeared?"

Captain Otter smiled. He began to laugh. He held his sides, threw back his head, and whooped.

The admiral's emotional barometer swung sharply over toward apoplexy. "And would you mind informing me just *what* is so amusing?" he asked dangerously.

But it was Papa Schimmelhorn who answered him. In the most friendly fashion, he slapped him on the back. "*Ho-ho-ho-ho!*" he boomed, "Of course you could not find us, sailor boy. It iss der Schimmelhorn Effect! Der little wheels inzide der tube go round. Und right away ve are *invisible!*"

"In—*invisible?*"

"Precisely, sir," said Captain Perseus Otter, making his comeback with surprising speed. "And completely so—to the human eye, to cameras, even to radar. However, it is my duty to request that you, sir, ask for no further information." He smiled serenely. "The Schimmelhorn Effect is highly secret."

"But—" The admiral started to protest. He got no further.

"*Eeeek!*" cried the little Wave, behind him.

He whirled. The Wave was blushing furiously. She was pointing an outraged finger at Captain Cobble. "Make—make him stop *doing* that!" she squealed.

Captain Cobble chuckled. His eyes uncrossed themselves.

"Here, here! What's going on?" snapped the vice admiral.

For just an instant Captain Sir Sebastian Cobble looked round self-consciously. Then:

"Going on, sir?" He winked at Little Anton. "Ah—just a bit more of this scientific know-how. The—the Fledermaus Effect."

It would be profitless to elaborate at too great a length on subsequent events aboard H.M.S. *Impressive*. The vice admiral delivered a short and stirring address, touching on such subjects as "tradition" and "hands across the sea." Captain Sir Sebastian Cobble bid a warm farewell to Captain Perseus Otter, assuring him—perhaps with his own vessel's unadorned prow in mind—that the Royal Navy could always find a place for him if he retired. Finally Papa Schimmelhorn was borne down the gangplank on the shoulders of four stalwart seamen, while the entire ship's complement sang *For He's a Jolly Good Fellow* at the top of their voices.

Immediately afterward, Captain Otter, Papa Schimmelhorn, and Little Anton were flown to Washington, where they were questioned in great secrecy by naval experts, by technical experts, and by envious representatives of the Air Forces and the Army—all of whom, finding themselves beyond their depth, concurred in recommending that the whole business be left in Captain Otter's obviously able hands.

It was not until four days later that the Board of Directors of the Luedesing Time and Instrument

Corporation of New Haven met for the express purpose of establishing a new order.

At the head of the table, old Heinrich Luedesing glared at his son Woodrow and at the Board. "I haff talked to Papa Schimmelhorn," he said. "Because ve are old friends, he says he vill come back—but only if ve make him Cheneral Manager, und Voodrow works for him . . ."

"This is ridiculous!" Woodrow Luedesing's indignation was loud and shrill. "The man is utterly unqualified! Why, I'll resign! I'll . . ."

"Bah!" Old Heinrich cut him short. "You vatch oudt, Voodrow, more nonzense und you haff a chob working inztead for Little Anton!"

Woodrow Luedesing looked around at the Board members for support—and found them unresponsive. Pouting, he lapsed into a sullen silence.

"Vell, dot iss zettled," his father said decisively. "Now, Herr Doktor Wilcn makes his report, und Captain Otter maybe giffs a speech. Then ve haff a vote."

Ferdinand Wilcn stood up, his expression a curious mixture of relaxation and bewilderment. "Gentlemen," he said, "I know you realize how vital the Schimmelhorn Effect is to our strength and our security. I'm sure you'd like to understand just how it works. Well, so would I. At present the important thing is that it *does* work."

Several of the directors nodded emphatically.

"Your Papa Schimmelhorn—" Wilen grinned, "—did his best to explain the principle. He said that it was all because of Maxie's Constance, with whom he first became acquainted as a janitor at the Geneva Institute of Higher Physics. It took me quite a while to see what he was getting at. His genius functions at a subconscious level. It absorbs theoretical information which is quite meaningless to him, extrapolates from it, and integrates it with his own primitive technology. Presto, out comes a—dingus! In this instance, by Maxie I think he means Max Planck. The little wheels go round—something happens which may involve the value of Planck's Constant, and—we have invisibility!"

"Remarkable!" said one or two of the directors. "Astounding!" murmured several others.

"To say the least! And he used the same principle to conceal his extra manufacturing parts. Invisible, they occupied the 'waste space' in the unit, and were powered by leads which seemed to go nowhere. That was why it drove me to distraction when I tried to fix it."

"But why didn't the—the dingus come out in one piece instead of two?" someone asked.

"Because he missed three weeks of lectures in Geneva. Something just wasn't in the recipe. And

that—" he shuddered slightly, "—brings us to Little Anton Fledermaus, who has turned out to be a perfect substitute for that something that isn't there. In childhood, rare individuals display supernatural powers—the psychokinetic poltergeist phenomenon, for instance. According to the parapsychologists who have examined him, our Little Anton has retained contact with an area of existence which he describes as 'just around the corner.' It seems to have no ordinary spatiotemporal coordinates, but to exist purely *in relation to him*. Light contact with it—when his eyes cross—enables him to see through such otherwise frustrating substances as silk, wool, and nylon. A closer contact—well, you've seen the demonstration. He holds the shell of Assembly M 'around the corner.' Half of it seems to disappear. He pops the tube in. And there we are!"

A portly director wrinkled his brow unhappily. "This science stuff's too deep for me," he grumbled. "What do we do now? That's what I want to know."

Wilen resumed his seat, and Captain Otter rose to address the Board. He was still unshaven. In fact, it was now apparent that he was letting his beard grow.

"I feel that this is not the time," he stated, "to quibble over theories and petty technicalities. Papa Schimmelhorn has shown his

practical ability to my complete satisfaction. Furthermore, he and young Fledermaus disposed adroitly of two extremely dangerous foreign agents. It is the opinion of the Department of the Navy—"he frowned severely at Woodrow Luedesing, "—that Papa Schimmelhorn should be reinstated on his own terms."

He sat down again. Old Heinrich called the Board to order. And without delay, by a vote of eight to one, Papa Schimmelhorn was promoted to the post of General Manager.

A burst of cheering followed the announcement, and a secretary was instantly sent off to carry the good news. Some minutes passed before the Board became aware that Dr. Wilen had something more to say.

"Though I am not associated with this firm," he began apologetically, "I should like to make one suggestion . . ."

Old Heinrich urged him to proceed.

"A suggestion which I trust will be taken in good part by all concerned. Papa Schimmelhorn is undoubtedly a genius. So, in his way, is Little Anton. Besides, both of them have a certain excess of exuberance, of *jote de vivre*. Perhaps it would be well—tactfully, of course—to take a few precautions in order, to—er, protect them from themselves?"

Old Heinrich nodded soberly.

Captain Perseus Otter reluctantly agreed that Dr. Wilen might have a point. But Woodrow Luedesing reacted much more sharply.

His pout vanished. Abruptly his face regained its rosy hue. He smiled beatifically.

"Gentlemen," he said, "leave that to me."

At three the following afternoon, Woodrow Luedesing found Papa Schimmelhorn and Little Anton in the office which he himself had formerly occupied. They were entertaining the shipping-office blonde. Papa Schimmelhorn, his arm around her slender waist, was telling her all about Sonya Lou. ". . . und Lidtle Anton says dot it vas nodt a cuckoo after all! It vas a bullvinch! *Ho-ho-ho!*"

"Am I intruding?" Woodrow asked diffidently.

Papa Schimmelhorn assured him that he was not. "*Ach*, now you vork for me, you come right in! I vas chust telling Mimi here aboutd der lady shpy. Imachine it! To Europe she has gone with der old shoe box, und opened it, und . . . Here in der paper, look. Oh, *ho-ho-ho!*"

Woodrow Luedesing accepted the newspaper, and, while Papa Schimmelhorn almost split his sides, he read a dispatch from *Tass* which claimed peevishly that the first cuckoo clock had really been invented by an intelligent

young peasant from Kiev centuries before the Western world had even heard of such a thing.

"How fascinating," Woodrow remarked politely. "But what I really came to see you about, sir, was a small business matter . . ."

"Don't worry about business, Woodrow!" cried Papa Schimmelhorn. "I teach you now how nodd to be a stuffed shirt. I teach you to haff fun!"

"That's very good of you," replied Woodrow, "but, as you are General Manager, I felt that you should be the first to meet our new Director of Security. She's quite remarkable."

"She?" Papa Schimmelhorn flexed his biceps automatically. "Woodrow, iss she beaudtiful?"

"I would say statuesque, sir.

But come see for yourself. She's waiting for you in her office right now."

Papa Schimmelhorn gave the shipping-room blonde a hasty peck. Taking Little Anton and Woodrow each by an arm, he led the way.

Thus they marched down the hall—but, when they came to the door marked *Security*, Woodrow stepped aside. "I'll see you later, sir," he said, with a broad wink.

"You are a goot boy, after all," asserted Papa Schimmelhorn, returning it.

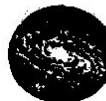
Then Papa Schimmelhorn and Little Anton opened the door and went in eagerly. They stopped dead still. They stared—

"Ha—!" said Mama Schimmelhorn.

CHANGING YOUR ADDRESS?

The Magazine of FANTASY and SCIENCE FICTION will follow you anywhere providing you let us know six weeks in advance. Please be sure to give us your old address as well as the new one, and add the ZIP number. (If convenient, send the address label from the wrapper of the next copy of F&SF you receive.)

Subscription Service
MERCURY PUBLICATIONS
 347 East 53 Street
 New York, N. Y. 10022



FIRST AND REARMOST

by Isaac Asimov

WHEN I WAS IN JUNIOR HIGH-SCHOOL, I used to amuse myself by swinging on the rings in gym. (I was lighter then, and more foolhardy.) On one occasion, I grew weary of the exercise, so at the end of one swing, I let go.

It was my feeling at the time, as I distinctly remember, that I would continue my semi-circular path and go swooping upward until gravity took hold; and that I would then come down light as a gossamer, landing on my toes after a perfect entrechat.

That is not the way it happened. My path followed nearly a straight line, tangent to the semi-circle of swing at the point at which I let go. I landed good and hard on one side.

After my head cleared, I stood up* and to this day that is the hardest fall I have ever taken.

I might have drawn a great deal of intellectual good out of this incident. I might have pondered on the effects of inertia; puzzled out methods of summing vectors; or deduced some facts about differential calculus.

However, I will be frank with you. What really impressed itself upon me was the fact that the force of gravity was both mighty and dangerous and that if you weren't watching every minute, it would clobber you.

Presumably, I had learned that, somewhat less drastically, early in life; and presumably, every human being who ever got onto his hind legs at the age of a year or less and promptly toppled, learned the same fact.

* People react oddly. After I stood up, I completely ignored my badly sprained (and possibly broken, though it later turned out not to be) right wrist and lifted my untouched left wrist to my ear. What worried me was whether my wrist-watch was still running.

In fact, I have been told that infants have an instinctive fear of falling, and that this arose out of the survival value of having such an instinctive fear during the tree-living eons of our simian ancestry.

We can say, then, that gravitational force is the first force with which each individual human being comes in contact. Nor can we ever manage to forget its existence, since it must be battled at every step, breath and heartbeat.

It is also comforting that this mighty and overwhelming force protects us at all times. It holds us to our planet and doesn't allow us to spin into space. It holds our air and water to the planet too, for our perpetual use. And it holds the earth itself firmly in its orbit about the sun, so that we always get the light and warmth we need.

What with all this, it generally comes as a rather surprising shock to many people to learn that gravitation is *not* the strongest force in the universe. Suppose, for instance, we compare it with the electromagnetic force that allows a magnet to attract iron or a proton to attract an electron. (The electromagnetic force also exhibits repulsion, which gravitational force does not, but that is a detail that need not distress us at this moment.)

How can we go about comparing the relative strengths of the electromagnetic force and the gravitational force?

Let's begin by considering two objects alone in the universe. The gravitational force between them, as was discovered by Newton (see **CATCHING UP WITH NEWTON**, F & SF, December 1958) can be expressed by the following equation:

$$F_g = \frac{Gmm'}{d^2} \quad (\text{Equation 1})$$

where F_g is the gravitational force between the objects; m is the mass of one object; m' the mass of the other; d the distance between them; and G a universal "gravitational constant."

We must be careful about our units of measurement. If we measure mass in grams, distance in centimeters, and G in somewhat more complicated units, we will end up by determining the gravitational force in something called "dynes." (Before I'm through, the dynes will cancel out, so we need not, for present purposes, consider the dyne anything more than a one-syllable noise.)

Now let's get to work. The value of G is fixed (as far as we know) everywhere in the universe. Its value in the units I am using is 6.67×10^{-8} . If you prefer long zero-riddled decimals to exponential figures, you can express G as 0.0000000667.

Let's suppose, next, that we are considering two objects of identical mass. This means that $m = m'$ so that mm' becomes mm , or m^2 . Furthermore, let's suppose the particles to be exactly 1 centimeter apart, center to center. In that case $d = 1$, and $d^2 = 1$ also. Therefore, Equation 1 simplifies to the following:

$$F_g = 0.0000000667 m^2 \quad (\text{Equation 2})$$

We can now proceed to the electromagnetic force, which we can symbolize as F_e .

Exactly one hundred years after Newton worked out the equation for gravitational forces, the French physicist, Charles Augustin de Coulomb (1736-1806) was able to show that a very similar equation could be used to determine the electromagnetic force between two electrically charged objects.

Let us suppose, then, that the two objects for which we have been trying to calculate gravitational forces, also carry electric charges, so that they also experience an electromagnetic force. In order to make sure that the electromagnetic force is an attracting one and is therefore directly comparable to the gravitational force, let us suppose that one object carries a positive electric charge and the other a negative electric charge. (The principle would remain even if we used like electric charges and measured the force of electromagnetic repulsion, but why introduce distractions?)

According to Coulomb, the electromagnetic force between the two objects would be expressed by the following equation:

$$F_e = \frac{qq'}{d^2} \quad (\text{Equation 3})$$

where q is the charge on one object, q' on the other and d is the distance between them.

If we let distance be measured in centimeters and electric charge in units called "electrostatic units" (usually abbreviated "esu"), it is not necessary to insert a term analogous to the gravitational constant, provided the objects are separated by a vacuum. And, of course, since I started by assuming the objects were alone in the universe, there is necessarily a vacuum between them.

Furthermore, if we use the units just mentioned, the value of the electromagnetic force will come out in dynes.

But let's simplify matters by supposing that the positive electric charge on one object is exactly equal to the negative electric charge on the

other object so that $q = q'^*$, which means that $qq' = qq = q^2$. Again, we can allow the objects to be separated by just one centimeter, center to center, so that $d^2 = 1$. Consequently, Equation 3 becomes:

$$F_e = q^2 \quad (\text{Equation 4})$$

Let's summarize. We have two objects, separated by one centimeter, center to center, each object possessing identical charge (positive, in one case, and negative in the other) and identical mass (no qualifications). There is both a gravitational and an electromagnetic attraction between them.

The next problem is to determine how much stronger the electromagnetic force is than the gravitational force (or how much weaker, if that is how it turns out). To do this, we must determine the ratio of the forces, by dividing (let us say) Equation 4 by Equation 2. The result is:

$$\frac{F_e}{F_g} = \frac{q^2}{0.0000000667 \text{ m}^2} \quad (\text{Equation 5})$$

A decimal is an inconvenient thing to have in a denominator, but we can move it up into the numerator by taking its reciprocal (that is, by dividing it into 1). Since 1 divided by 0.0000000667 is equal to 1.5×10^7 , or 15,000,000, we can rewrite Equation 5 as:

$$\frac{F_e}{F_g} = \frac{15,000,000 q^2}{\text{m}^2} \quad (\text{Equation 6})$$

or, still more simply, as:

$$\frac{F_e}{F_g} = 15,000,000 (q/\text{m})^2 \quad (\text{Equation 7})$$

Since both F_e and F_g are measured in dynes, then in taking the ratio, we find we are dividing dynes by dynes. The units, therefore, cancel out, and we are left with a "pure number." We are going to find, in other words, that one force is stronger than the other by a fixed amount; an amount that will be the same whatever units we use or whatever units an intelligent entity on the fifth planet of the star Fomalhaut wants to use. We will have, therefore, a universal constant.

* We could make one of them negative to allow for the fact that one object carries a negative electric charge. Then we could say that a negative value for the electromagnetic force implies an attraction and a positive value a repulsion. However, for our purposes, none of this folderol is needed. Since electromagnetic attraction and repulsion are but opposite manifestations of the same phenomenon, we shall ignore signs.

In order to determine the ratio of the two forces, we see from Equation 7 that we must first determine the value of q/m ; that is, the charge of an object divided by its mass. Let's consider charge first.

All objects are made up of subatomic particles of a number of varieties. These particles fall into exactly three classes, however, with respect to electric charge:

1) Class A are those particles which, like the neutron and the neutrino, have no charge at all. Their charge is 0.

2) Class B are those particles which, like the proton and the positron carry a positive electric charge. But all particles which carry a positive electric charge invariably carry the same quantity of positive electric charge whatever their differences in other respects (at least as far as we know). Their charge can therefore be specified as +1.

3) Class C are those particles which, like the electron and the anti-proton, carry a negative electric charge. Again, this charge is always the same in quantity. Their charge is -1.

You see, then, that an object of any size can have a net electric charge of zero, provided it happens to be made up of neutral particles and/or equal numbers of positive and negative particles.

For such an object $q = 0$, and no matter how large its mass, the value of q/m is also zero. For such bodies, Equation 7 tells us, F_e/F_g is zero. The gravitational force is never zero (as long as the objects have any mass at all) and it is, under these conditions, infinitely stronger than the electromagnetic force and need be the only one considered.

This is just about the case for actual bodies. The overall net charge of the earth and the sun is virtually zero and in plotting the earth's orbit, it is only necessary to consider the gravitational attraction between the two bodies.

Still, the case where $F_e = 0$ and, therefore, $F_e/F_g = 0$ is clearly only one extreme of the situation and not a particularly interesting one. What about the other extreme? Instead of an object with no charge, what about an object with maximum charge.

If we are going to make charge maximum, let's first eliminate neutral particles, which add mass without charge. Let's suppose, instead, that we have a piece of matter composed exclusively of charged particles. Naturally, it is of no use to include charged particles of both varieties, since then one type of charge would cancel the other and total charge would be less than maximum.

We will want one object then, composed exclusively of positively-charged particles and the other exclusively of negatively-charged particles. We can't possibly do better than that as a general thing.

And yet while all the charged particles have identical charges of either $+1$ or -1 , as the case may be, they possess different masses. What we want are charged particles of the smallest possible mass. In that case, the largest possible individual charge is hung upon the smallest possible mass and the ratio q/m is at a maximum.

It so happens that the negatively charged particle of smallest mass is the electron and the positively charged particle of smallest mass is the positron. For those bodies, the ratio q/m is greater than for any other known object. (Nor have we any reason, as yet, for suspecting that any object of higher q/m remains to be discovered.)

Suppose, then, we start with two bodies, one of which contains a certain number of electrons and the other the same number of positrons. There will be a certain electromagnetic force between them and also a certain gravitational force.

If you triple the number of electrons in the first body and triple the number of positrons in the other, the total charge triples for each body and the total electromagnetic force, therefore, becomes 3 times 3, or 9 times greater. However, the total mass also triples for each body and the total gravitational force also becomes 3 times 3, or 9 times greater. While each force increases, they do so to an equal extent, and the ratio of the two remains the same.

In fact the ratio of the two forces remains the same, even if the charge and/or mass on one body is not equal to the charge and/or mass on the other; or if the charge and/or mass of one body is changed by an amount different from the change in the other.

Since we are concerned only with the ratio of the two forces, the electromagnetic and the gravitational, and since this remains the same, however much the number of electrons in one body and the number of positrons in the other are changed, why bother with any but the simplest possible number—one?

In other words, let's consider a single electron and a single positron separated by exactly 1 centimeter. This system will give us the maximum value for the ratio of electromagnetic force to gravitational force.

It so happens that the electron and the positron have equal masses. That mass, in grams (which are the mass-units we are using in this calculation) is 9.1×10^{-28} or, if you prefer, 0.000000000000000000000000091.

The electric charge of the electron is equal to that of the positron (though different in sign). In electrostatic units (the charge-units being used in this calculation), the value is 4.8×10^{-10} , or, 0.00000000048.

What's more, the most conspicuous bodies in the universe happen to be conglomerations of vast mass, and we live on the surface of one of these conglomerations.

Even so, there are hints that give away the real weakness of gravitational force. Your weak muscle can lift a fifty-pound weight with the whole mass of the earth pulling, gravitationally, in the other direction. A toy magnet will lift a pin against the entire counter-pull of the earth.

Oh, gravity is weak all right. We can dramatize that weakness further.

Suppose that the earth were an assemblage of nothing but its mass in positrons, while the sun were an assemblage of nothing but its mass in electrons. The force of attraction between them would be vastly greater than the feeble gravitational force that holds them together now. In fact, in order to reduce the electromagnetic attraction to no more than the present gravitational one, the earth and sun would have to be separated by some 33,000,000,000,000,000 light years or about five million times the diameter of the known universe.

Or suppose you imagined in the place of the sun half a billionth of a gram of electrons (0.0000000005 grams). This makes up a mass too small to see and is, indeed, only about a quarter the mass of an average liver cell.* And in the place of the earth, imagine one and a half quintillionths of a gram of positrons (0.0000000000000015 grams). It would take an electron microscope to see such a mass, but it would still contain 1,600,000,000,000 positrons.

The electromagnetic attraction between these two insignificant masses, separated by the distance from the earth to the sun, would be equal to the gravitational attraction between the colossal masses of those two bodies right now.

In fact, if one could scatter half a billionth of a gram of electrons on the sun, and one and a half quintillionths of a gram of positrons on the earth, you would double the sun's attraction for the earth and alter the nature of its orbit considerably. And if you made it electrons, both on sun and earth, so as to introduce a repulsion, you would cancel the gravitational attraction altogether and send old earth on its way out of the Solar system.

Of course, all this is just paper calculation. The mere fact that electromagnetic forces are as strong as they are means that you cannot collect a significant number of like-charged particles in one place. They would repel each other too strongly.

* Nevertheless, it must not be despised entirely, for such a mass contains 55,000,000,000,000,000 electrons.

Suppose you divided the sun into marble-sized fragments and strewed them through the Solar system at mutual rest. Could you, by some man-made device keep those fragments from falling together under the pull of gravity? Well, this is not a greater task than that of getting hold of half a billionth of a gram of electrons and squeezing them together into a ball.

The same would hold true if you tried to separate a sizable quantity of positive charge from a sizable quantity of negative charge—and by sizable quantity, I mean a quantity large enough to be visible under an electron microscope.

If the universe were composed of electrons and positrons as the chief charged particles, the electromagnetic force would make it necessary for them to come together. Since they are anti-particles, one being the precise reverse of each other, they would melt together, cancel each other, and go up in one cosmic flare of gamma rays.

Fortunately, the universe is composed of electrons and protons as the chief charged particles. Though their charges are exact opposites (-1 for the former and $+1$ for the latter) this is not so of other properties; such as mass, for instance. Electrons and protons are not anti-particles, in other words, and cannot cancel each other.

Their opposite charges, however, set up a strong mutual attraction that cannot, within limits, be gainsaid. An electron and a proton therefore approach closely and then maintain themselves at a wary distance, forming the hydrogen atom.

Individual protons can cling together despite electromagnetic repulsion because of the existence of the nuclear strong interaction force that sets up an attraction between protons that are very close together that far overbalances the electromagnetic repulsion. This makes atoms other than hydrogen possible.

In short: nuclear forces dominate the atomic nucleus; electromagnetic forces dominate the atom itself; and gravitational forces dominate the large astronomic bodies.

The weakness of the gravitational force is a source of frustration to physicists.

The different forces, you see, make themselves felt by transfers of particles. The nuclear strong interaction force, the strongest of all, makes itself evident by transfers of pions, while the electromagnetic force (next strongest) does it by the transfer of photons. An analogous particle involved in weak interactions (third strongest) has just been reported a few months ago. It is called the "w particle" and as yet the report is a tentative one.

So far, so good. It seems, then, that if gravitation is a force in the same sense that the others are, it should make itself evident by transfers of particles.

Physicists have given this particle a name, the "graviton." They have even decided on its properties, or lack of properties. It is electrically neutral and without mass. (Because it is without mass, it must travel at an unvarying velocity, that of light.) It is stable, too; that is, left to itself, it will not break down to form other particles.

So far, it is rather like the neutrino, which is also stable, electrically neutral and massless (hence travelling at the velocity of light).

The graviton and the neutrino differ in some respects, however. The neutrino comes in two varieties, an electron neutrino and a muon neutrino, each with its anti-particle; so there are, all-told, four distinct kinds of neutrinos. The graviton comes in but one variety and is its own anti-particle. There is but one kind of graviton.

Then, too, the graviton has a spin of a type that is assigned the number 2, while the neutrino along with most other subatomic particles have spins of $\frac{1}{2}$. (There are also some mesons with a spin of 0 and the photon with a spin of 1.)

The graviton has not yet been detected. It is even more elusive than the neutrino. The neutrino, while massless and chargeless, nevertheless has a measurable energy content. Its existence was first suspected, indeed, because it carried off enough energy to make a sizable gap in the bookkeeping.

But gravitons?

Well, remember that factor of 10^{42} .

An individual graviton must be trillions of trillions of trillions of times less energetic than a neutrino. Considering how difficult it was to detect the neutrino, the detection of the graviton is a problem that will really test the nuclear physicist.

However, all hope is not necessarily gone. After centuries of intensive studies of the sky, astronomers—within the past year—have discovered not one, but two, kinds of wholly novel and unexpected cosmic bodies; bodies in which gravity plays an unexpectedly huge role. Study of these bodies may tell us a lot more about gravity than we could have hoped for as little as a year or two ago.

But I can't discuss that now, not in this article at least. Instead, I will leave you with the two most fashionable words in this year's astronomy, "quasars" and "x-ray stars."

In the complete tradition of the cliff-hanger, I will only say that in some future column, I will explain—

It was held, once upon a time, that slaves became free men the moment they set foot on free soil: "They touch our shores and their shackles fall . . ." the poet wrote. That some transformation, not utterly dissimilar, can occur in the Age of Space, is the burden of this brief story here . . . concerning its author, we can at this moment tell you only that he lives in San Diego, California, and that we hope to have him with us again.

THE YEAR OF THE EARTHMAN

by Hogan Smith

HE LAY STILL IN THE DARKNESS, waiting. The room had been prepared as a place for him to die. He was grateful to his friends for the privacy.

There wasn't much time left, so he remembered the day again. He couldn't start in the morning and remember the entire day, step by step. He had planned to do it that way and he had tried to remember it the way it had happened, but he could remember it only in pieces, like sections of time cut off and floated past his mind.

He remembered being on the beach and smelling an autumn breeze that carried the sharp moist smell of the sea. He could remember that. Then he fell asleep with the gentle sun warm on his skin.

There was a part of him that never slept. After a while that part of him heard a sound and it awakened the rest of him so he could sit up and listen and know what the sound was.

When he heard the sound again he relaxed. It was no more than the slip-slap of a boy's bare feet against a wet sandy path. He had heard the sound many times before.

"Earthman," the boy said. He stopped in front of the spacer.

The spacer looked and the boy was hazy and he had to move his head and refocus his eyes in order to see the boy. The reason was simple enough. Heavy primaries had blasted through his retinas, forming scars where there was no sight.

He found a place in his eyes where he could see and he looked at the boy.

"Jed, son of Jed who lives by the sea," the spacer said. In doing so he acknowledged the boy and gave him permission to speak.

"Earthman, my father speaks you well and says that I speak to you saying it is mealtime and you are bid to share our food and our shelter." He was a sturdy boy, handsome and well put together. His skin was brown. His hair was pure white. His eyes were typical of his people, swirling slits of iridescent purple.

"I am proud," the spacer said. "Speak to your father and say he honors me, even as his son honors him." The ritual was a daily one, lending an air of social grace to an otherwise unsophisticated culture.

The boy nodded gravely, well pleased at the spacer's words. "I will speak to my father."

The man stood and brushed the sand from his clothes, then the two of them started the mile walk to the house on the hill.

After the proper interval of silence the boy said, "What is it like on your world?"

"It is much as it is here. Your planet is larger than mine, yet it is much the same."

"Pik, son of Pik who makes shoes, says your world is so crowded the people must live together in tall thick buildings."

"It is true. Still not all of us live

in such buildings. Some live in private homes, as you do."

"Pik, who makes shoes, said to his son you have been in the service of your people for a long time."

"Yes," the spacer said simply. "A long time." He turned inside himself, ignoring the boy.

How long was long? How long had he rammed through deep space doing the business of earth? How long had he waited in the wards while they mended the broken part of him? And how long had he ridden alone and sometimes afraid, leaving specks and flecks of himself behind while heavy primaries slammed through his body day after day after day. How long was long? He couldn't remember.

Long was long enough to get from here to there, he supposed, and not much difference between the beginning and the end.

"I have been told not to speak of this," the boy said. "Yes, there is much I would like to know."

The spacer looked down at the boy and smiled.

"Speak and none will know but us."

"Jed, who is my father, says you have served your people well, even fought in their wars."

"It is true."

The boy paused, collecting around him the words he wanted. "By your time, today is the end of the third cycle since you have come to our world."

"Yes."

"When this day is ended you have said you will die."

"Yes."

"Why is that so?"

"It is the way of my people," the spacer said quietly.

"They will come here and kill you?"

"There is a device inside me that cannot be removed. When the time comes, it will destroy me."

"You have never misplaced the trust of your people?"

"No. Not until I came here to remain and marry she who is your sister."

"Pik, son of Pik who makes shoes, says you have much wealth."

"Star pilots are well paid." The spacer shifted and refocused his eyes so he could see the path.

"Why is it so that you must die?"

The man hesitated so long the boy was afraid he was offended and would not answer.

"When spacers first went out from the world they sometimes left the business of the earth and went about their own business. Some of them caused much harm to earth doing this and many harsh restrictions were placed on spacers. When these rules grew too burdensome, men became unwilling to spend their lives in space.

"There came a time of no space travel from my world. Those times were before I was. I cannot say when space travel began again. I was a baby when it changed. I grew up knowing I would be a star

pilot. There were many of us. We went to special schools from the first. We are paid much money to be star pilots, but it is of no use to us in space so it is put in a bank for us on earth. When we retire it is ours. When I am dead the money will belong to she who is my wife."

"But why must you die?"

"It is a means of control. Space pilots must report to certain places every three cycles so the earth leaders can be sure we are doing what we should be doing. If we do not report at the proper place at the proper time the device inside us will destroy us."

"I do not think it just," the boy said soberly.

"When I was young and wanted wealth and wanted to be a star pilot I thought it was just."

"But you do not think so now?"

"I do not think it is the only way."

"Did you decide to become a space pilot when you were a boy like me?"

"I do not remember when I decided. I always knew I would be a space pilot."

"Are you afraid?" The boy was artless.

"Yes," the spacer said. "I am afraid."

"Is there an again-of-you on another world?"

"No."

"Do you desire an again-of-you very much?"

The spacer stopped walking and looked out over the sea, smelled the wet salt air and watched the sun start its drop to the other side of the planet.

"Yes," the spacer said. "More than all of the other things there are for a man to want."

The boy bowed to the sun and drew a certain design in the sand with his toe.

"Let this, then, be the year of the earthman," the boy said to the sea.

The spacer put his hand on the boy's shoulder. "Come, we will be late for mealtime."

They walked on toward the house. It was built of stone and it looked much like earth's ancient castles. A man, marked and colored like the boy, stood in the main doorway. He was strong looking, a man out of the soil that fed him.

The spacer stopped at the door. It was the last time he would pass through the door as a living being.

"Earthman," the man in the doorway said. Somehow he turned the simple word into a ceremony.

"Jed, who lives by the sea, you honor me with your hospitality."

"My home is proud that you are pleased," Jed said.

The spacer couldn't remember the next few hours. He must have greeted Jed's wife. She was the mother of the girl he married and the prescribed greeting was rigid. He could not remember doing it. Neither could he remember his

final meal, though he could remember he had planned it many days before.

The next section of time he could remember was when he was with his wife, alone in her room. It was the late part of the evening.

Pam was a beautiful woman and he was proud of her, glad of the months he had fed data into his ship's computers so he could find people enough like humans that interbreeding was possible. Most of all he was proud that she accepted him for a husband.

They were sitting by the fire in their room when she told him. He hadn't much time left by then, but she had waited until they were alone.

"Earthman," she said tenderly and she moved her head from his shoulder so she could look into his eyes. "Earthman, be proud."

He could not speak. He nodded and waited.

"Your child is in my belly, Earthman, alive and well."

"You are sure?" Harsh words. Urgent intense words. "You are sure?"

"I saw Lor, who keeps health. I am sure. The now-of-me holds the again-of-us."

"Sweet God, Pam. There is no way to thank you." It was a prayer, the way his words unfurled from his throat.

"What need to thank me for what our love has created?"

He moved closer to the fire.

"I have a son," he said, staring into the fire.

"Pooh. How do you know it is not a daughter I hold?"

"Whichever, it is of my blood," the spacer said. "It is of me."

"And me," the woman said.

He grinned at her. "I did not mean to act as though I were the only one needed to make a baby. But I was in space for a long time. I feared my seed was dead. Before we left earth they told us we had everything we needed to make babies except the seed. Such was the only difference between star pilots and other men."

The woman returned her head to his shoulder. "Your seed is good," she said simply.

"It is good," he said. "It is good." He caressed her shoulder and that section of time closed for him and it was all of the day he could remember.

Time was such a small quick thing. His last day looked so ordinary when it came he almost didn't recognize it. He couldn't catch the minutes and use them, the way he meant to.

He had told the boy he was afraid. He thought he was. Now he was not sure. There had been times in space when he balanced his life on the edge of space and he had been more afraid then.

In a moment or two he would be dead. He knew that beyond any doubt. Yet he had often been more afraid in space.

A feeling came to him from out of the darkness and he knew the waiting was over. There was a click inside, strange and deep down, and the force of him was turned off. One by one the vital parts of him stopped doing their mysterious work of life.

"It is not so much to die," he thought, and with that thought clarity came, roaring and twisting into his mind so rudely he winced. He could not stop it. Course vulgar clarity thrust directly into the warm quiet place where he was hiding.

He learned what the earth had meant he should never learn—what he couldn't have learned, had radiation not altered and diminished the block they had built into his mind.

He was not a man. He could remember that now. They had taken tissue from a man and grown it and nourished and clothed his bones with it, but he was not a man.

Then what was he, if he wasn't a man? There was a word for everything, so what was the word for him?

Programmed. That was it. He was a programmed. No . . . not . . . that. Programmed was something man did to him when he was first made.

Father! That was it. That was the word for him. Father. Because he had made a baby in his wife's belly. No. Only man could father

a baby. They told him that. They said: "You are exactly like man except you carry no seed."

Well, he carried seed now. He made certain of that before he married his wife. Hard, deep space radiation had given him sperm, the same way it had altered the mental block man had put into his brain.

He felt the edges of himself turn cold and he grinned at the darkness. It didn't matter what his name was. When his son was born they would have to find a new

name . . . they would have to find a new name . . . find a new name . . .

There was one final click.

On earth a man at the Inter-Stellar Freight and Mineral Company noted that Charlie Abel, Model 1500, Combination Explorer and Fighter, had ceased to exist. The man did not regard that fact as particularly important. After all, the Company often lost expensive equipment in space.

ABOUT THE COVER

Three space ships are passing the moon on their way to Mars. Between the crescent of reflected sunlight on the moon and the dark crescent of that side of the moon we on earth never see, the moon is illuminated by earth light.

The ships are using the ion drive engine, which gives off a characteristic blue glow. The engine has low thrust and acceleration with a very high exhaust velocity, so that the ship reaches a high velocity over a long period of time and is easier to control directionally than a chemically fueled rocket.

The power plant vaporizes and ionizes cesium on numerous incandescent platinum surfaces and provides high voltage to accelerate the particles in a given direction to produce thrust. Since the ships are travelling in a vacuum, the excess heat must be disposed of by large radiation panels, which are heated to cherry red.

The ion drive engine generates its power from nuclear energy. Shielding the crew from nuclear energy is necessary, and in these ships the radiation shields are inside the ships, between the plant and the crew quarters.

The painting is from *BEYOND THE SOLAR SYSTEM*, paintings by Chesley Bonestell, text by Willy Ley, Viking Press, 1964.

It is our custom, when wishing to introduce a story with some few details about an author, his works and views, to hand our Mr. Pettifogle a subway token and send him in quest of what we call "bio data"—wherefrom we winnow a few facts and fancies, salient or otherwise. Mr. Robert F. Young, author of this story of land and sea, and love transmuted by a terrible yet glorious change, provided us with information of such unexpected largesse that we decided to throw precedent to the unnumber'd winds and print it in toto. Anyone concerned with either reading or writing should find interest in what he has to say—and a fig for nay-sayers.

Looking back, I realize that Tarzan of the Apes had quite a bit to do with my becoming a science-fiction writer. Through Tarzan, I met John Carter, and through John, I met Julians V, IX, and XX, Jason Gridley, Waldo Emerson Smith-Jones, Bowen J. Tyler, Jr., and a host of other luminaries in the Burroughs realm. This was a long time ago, but the fictitious friends we make in our youth, however absurd they may sometimes turn out to be when we revisit them, cast a spell over us that lingers down through the years, and it distresses me no end, when I watch an old Tarzan movie, to see Johany Weismuller try to climb a tree or to hear him speak without benefit of the first person singular. Tarzan was nothing if he was not agile, and less than nothing if he was not intelligent, and for him to be demeaned in so flagrant a fashion is a crime against Burroughsiana. A more recent—and even more flagrant—crime was committed in the name of E.R.B. on the Jack Benny program last week. In a spoof about Tarzan and Jane, Jane was given parents who spoke with an English accent. Shades of Professor Archimedes Q. Porter! Everybody knows that, for all her jungle lord's renowned English ancestry, Jane Porter was an American girl. Sometimes I wonder what the world is coming to.

Rummaging through the shelves of the local library long, long ago (probably in search of an as yet undiscovered Mars or Tarzan book), I came upon a volume entitled *Men like Gods*. A new door was forthwith opened, and the light streaming through from the room beyond made the light in the room in which I stood seem lusterless indeed. From that moment on I began reading

Wells, and even today I go back and read him occasionally. He does not dim with time, and—as a certain editor so ably put it in a recent book review—he “towers and sparkles, like a giant dressed in jewels, high over all who came after him.”

The third spark that ignited my ambition was a story that I read at the age of nine or ten either in *Boy's Life* or *The American Boy*. I recall little about it, save that it was a fourth-dimension story, but it harked the first true awakening of my sense of wonder. I am still afflicted with that sense of wonder, though to a lesser degree; I hope I am always afflicted with it. I should very much hate to become one of those many people who go through life moved by nothing except new cars, new hi-fi sets, new boats, and new electric can openers—the kind of people, in short, who throw a dithyrambic fit when they win something on “The Price is Right.”

After I graduated from high school (I never went to college), I had an ideal opportunity to write. The latter years of the depression were in progress at the time, and you couldn't buy or steal a steady job, so what more logical thing could I have done, in view of the fact that the plant where I began working operated at most but six months out of the year and in view of the fact that I was single, than to have put my pen to paper? But did I? Not me. Save for a few half-hearted attempts in this vein and that, I spent most of my spare time reading. I had the notion, probably, that the more I read, the better I would be qualified to write—once I finally got around to doing so. I did not know then that a person can live in a thousand houses and still not have the faintest idea of how to build one. In order to be able to build a house, you have to be a carpenter, and in order to get to be a carpenter, you have to serve an apprenticeship. Well anyway, at least I got to live in a lot of houses. I lived in the house of John Galsworthy, the house of Warwick Deeping, the house of Sinclair Lewis, the house of Somerset Maugham, the house of Dorothy Canfield Fisher, the house of O. Henry, the house of Jack London, the house of Joseph Hergesheimer—I lived, in short, in the house of just about anyone I came to, and in addition I made occasional stopovers in a rather large and imposing structure entitled “Dr. Eliot's Five Foot Shelf of Books.” Since those years I have of course lived in many

other houses, and some of them have been resplendent indeed; but after I began writing I lost my ability to live in a house for the sake of living in it alone, and now, whenever I walk down some literary corridor—lofty or not quite so lofty, as the case may be—I keep an eye peeled for this example of workmanship and that.

With the passing of the depression years, I found myself with a 1-A classification, and not long thereafter I found myself in the Army. Meanwhile, I had gotten married. Three and a half years later, finding myself a civilian once again, I went to work in a local factory spraying castings, moved on to another local factory where I worked as a machinist, moved on to a nearby steel mill where I worked as a third helper, a stopper-maker, a slagger, a clerk, and a mud-man, moved on to a non-ferrous foundry where I worked as a metal pourer. I was pouring metal when I sold my first story. After that, I got a job in another machine shop and became what is known as a "setup man." When the machine shop transferred to another town, I became an assembler, and then a shipping clerk, but long before this I had become a writer, which was the only thing I had really wanted to become in the first place.

I am 47, 5' 9", and wear glasses. I was brought up a Republican, but I seldom vote the same ticket two times running. My wife and I have one daughter, who is now married, and we are grandparents of some eight months standing. We own our own house, and the house is located some several hundred feet from the waters of Lake Erie. On clear days I can look through the windows of the enclosed front porch where I do my writing and see Canada. Or rather, I would be able to were it not for the fact that I usually keep the drapes drawn. Looking at Canada is fine, but you can't look at Canada and write too. I have no hobbies, unless you can call reading a hobby. Or feeding the birds (this morning I saw a white-breasted nuthatch). I belong to no organizations. I don't believe in organizations. I like: opera, cold weather, "The Defenders", trees, roast beef on kummelweck, and the works of Virginia Woolf. I dislike: rock 'n roll, hot weather, "The Danny Thomas Show", superhighways, pizza, and housewife-writers who extol their own literary achievements on the pages of writers' magazines. I dread: having people come up to me and say, "I have an

Idea that will make a real Jim-Dandy of a story," or, even worse, having people come up to me and say, "You should write my Life Story—wow!"—and then proceed to tell it to me.—R.F.Y.

IN WHAT CAVERN OF THE DEEP

by Robert F. Young

SNOW LAY ALONG THE CLIFF top and more snow was slanting in over the Atlantic, pitting the leaden waves that one by one were assailing the narrow strip of beach at the cliff's base. The trees along the cliff top were black, their leaves long torn away by November storms. The cottage sat some distance back from the trees, bluish smoke rising from the chimney and fleeing with the wind. In front of the cottage and on the edge of the cliff was a small gun-emplacement, and beside the emplacement, mackinaw collar raised against the slanting snow, David Stuart stood.

And he took his staff in his hand, and chose him five smooth stones out of the brook and put them in a shepherd's bag . . . and his sling was in his hand . . .

Many summers had fled the cliff and the cottage, many springs and falls. Winter loved to lash the gentle grass that grew before the door, to whip the trees that stood

along the cliff top, to belabor the little beach that lay below . . . In the cottage, storm-bound they had lain, flesh against flesh and breath to breath, warding off the bitter cold. Winter had tried with all its might to destroy the fortress that their love had built around them, and they had laughed in darkness, laughed in warmth, knowing that the fortress would not fall.

But now the fortress was gone.

Snow stinging his face, David looked out to sea. He looked for gold—the gold of a woman's hair. For golden tresses kelp-bed vast, for shoal-shoulders surging with the sweep of cyclopean arms; for the tempest-thrust of mast-long legs. There would be gulls and dolphins, too, if the reports were correct—the gulls circling high above her spume-crowned head, the dolphins romping all around her. Out of the deep she would rise, as golden as the sun—*comely as Jerusalem, terrible as an army*

with banners—and then his huge horrendous sling would speak, and she would be no more. . . . How lovely was thy gentle forehead—*how beautiful were thy feet with shoes!*

The wind took on an added sharpness, and David turned his head to shield his numbing cheeks. The cottage came into his line of vision, and as he stood there gazing at the memoried winter-bower a girl came out and started walking toward him through the day-before-Christmas snow. A heavy coat muffled the tall figure he knew so well; a woolen kerchief restrained the dark-brown hair that sometimes fell about him in the night. The clear grayness of her eyes was forever taking him unawares, and it did so now as she came up to him and said, "I made some coffee, David. It's on the stove. Drink some, and then lie down."

He shook his head. "I'll have a cup, and come right back."

"No. You've been up all night. If she comes, I'll call you the minute I see her. You'll have plenty of time to align the gun."

Awakened by the thought of sleep, his tiredness rose up and tried to overcome him. He fought it back. "The wind is raw," he said. "You should have brought a blanket to wrap around you."

"I'll be all right."

He said, "I wonder if she's cold."

She said, "You know she can't be. That she's not human any more. Go inside and sleep."

"All right—I'll try."

He hesitated, wanting to kiss her. Somehow, he could not. "Call me if she comes then. Call me anyway in three hours."

"I put some blankets on the sofa. It's warmer there. Now don't worry—everything will be all right."

He left her side and walked across the snow-covered lawn. Victorious, his tiredness climbed upon his shoulders. They sagged beneath the crushing weight. He felt like an old man. Old before I am forty, he thought. Old before I am even thirty-five. *This day will the Lord deliver thee into mine hand; and I will smite thee . . .*

It was warm in the cottage. Wood that he had split the day before burned brightly in the fireplace, the reds and yellows of the flames playing over the blanket-covered sofa. David removed his mackinaw and hung it on the rack beside the door. He hung his hat beside it and kicked out of his galoshes. The warmth laid soothing fingers upon his brow. But he knew that he could not sleep.

The aroma of fresh-brewed coffee came from the kitchen, and he went out into the little room and poured a steaming cupful. All around him, memories hovered: in plate and bowl and saucer, in pot and pan and stove; in the color of

the curtains, in the panels of the walls. Honeymoon mornings she had made coffee, fried bacon; broken eggs into a crackling pan. The table where they had breakfasted stood like a shrine in the middle of the floor. Abruptly, he turned and walked away, leaving his coffee forgotten on the stove.

In the living room again, he sat down on the sofa and took off his shoes. The heat of the fire reached out and touched his face. His woolen shirt began to prickle, and he removed it and sat there in his T-shirt and his trousers, staring at the flames. He could hear the wind, and her name was on its breath. *Helen*, it whispered again and again. *Helen!* . . . Far out to sea, the sunny tresses he had once caressed spread out like golden kelp-beds; far out to sea, the lovely head he had once cradled on his shoulder plied cold and dismal waves; far out to sea, the supple body he had once adored rolled to and fro in leviathan undulations. . . . In the gray morning light he saw that the backs of his hands were glistening with tiny drops of moisture. He stared at the drops uncomprehendingly, and as he stared another one appeared. He knew then that they were fallen tears.

I

Oddly enough, he had received an impression of tallness the very

first time he saw her. The impression was a false one, arising from their different positions—she had just stood up on the raft and he was climbing onto it—but in the years that followed he never forgot how goddess-like she seemed when he emerged from the blue water at her very feet and gazed up at her. It was the first faint sounding of a leitmotiv that was destined to grow in sound and grandeur until it dominated his life.

The fullness of her pectorals and the deepness of her chest led him to suspect that she was an excellent swimmer. Her long legs, smoothly yet powerfully muscled, strengthened the suspicion, and the golden cast of her skin did nothing to disaffirm it. But she was not a particularly tall girl, he saw when he stood up beside her; tall, yes—but no taller than the five feet, four necessary to put the top of her golden head on a level with his chin. The brown-haired girl who had also been sun bathing on the raft and who had also stood up was unmistakably the taller of the two. She gave David a penetrating glance out of cool gray eyes, then donned a yellow bathing cap. "Come on, Helen, we've got to dress for dinner," she said to her companion, and dived into the water and struck out in an easy crawl for the white strip of beach with its decor of piers and cottages.

The golden girl donned a white

bathing cap and was about to follow when David said, "Don't go yet—please."

She regarded him curiously, and he saw that the September sky had copied its color from the blueness of her eyes. "Please? Why please?"

"Because I'll probably never swim out here again and find someone like you standing in the sun," David said. "Because I'm a miser as regard to moments, and when I find a golden one like this I'm compelled to do everything I can to keep it from slipping through my fingers before I get a chance to hoard it."

"You're strange. Do you joust with windmills, too?"

He smiled. "Sometimes." And then, "I already know your name," he went on. "Or at least the first part of it. For the record, mine's David—David Stuart."

She removed her bathing cap, and her golden hair came tumbling softly down around her cheeks and neck. Her face somehow managed to be both oval and heart-shaped, and the line of her eyebrows was a logical and natural extension of the delicate line of her nose. "For the record," she said, "the last part of mine is Austen." She seemed to make up her mind. "Very well, I can spare a minute—three, if I skip my shower. But no more than that."

She sat down in the sun, and he sat down beside her. White-

caps danced around them on the blueness of the lake and above their heads a lofty family of cirrus clouds hovered sedately in the sky. "I thought I knew everyone at the resort by this time," she said. "My sister Barbara and I have been here for almost a month. You must be cryptozoic."

"No," he said, "I just arrived this morning. Not long ago, I found myself the inheritor of quite a number of things, among them a beach house. I wanted to get some benefit out of it before the season died."

"You won't get very much. Tomorrow's burial day, you know."

"Not for my season. I've struck Labor Day from my calendar. I've always had a penchant for September beaches, but this is the first time I've ever had a chance to indulge it. I'll probably hang around here till October, keeping company with the herring gulls and old memories."

She looked out over the dancing water. "I'll think of you when I'm back in the salt mines laboring over dictation pad and typewriter."

The line of her neck and chin was faintly childlike. Somehow, she made him think of a little girl. "You're hardly more than nineteen, are you?" he asked wonderingly.

"I'm twenty-one, and secretarial school is far behind me. I wanted to go into training and swim the

English Channel, but my sister Barbara, who is wise in all things, convinced me that I should settle for a more staid career."

"You don't look like your sister," he said. And then, "Tell me about your swimming."

"I took the women's long-distance A.A.U. championship in 1966. Does that contribute anything to your golden moment?"

"It enhances it no end. But it also gives me a feeling of inferiority. I can't even swim a mile."

"You could if you went about it right. Swimming is a more natural form of locomotion than walking is." She donned her bathing cap again—this time for keeps—and stood up. "I'm afraid your three minutes expired some time ago, and now I really must go."

He stood up beside her. "I'll swim in with you," he said.

They dived together, emerged glistening in the sun, and struck out for shore, she with a lazy play of arms and legs, he with a laborious side stroke. On the beach, water dancing down her smooth tanned skin, she said, "I hope the moment makes a distinguished addition to your collection. And now, I must run."

"Wait," he said. "I wouldn't be a true miser if one golden moment didn't make me greedy for another."

"But one more will only make you greedy for still another— isn't that so?"

"It is a sort of vicious circle, at that," he admitted. "But I can't help myself, and time is running short, and—"

"I'll be at the pavilion with Barbara tonight," Helen said. "You may buy me one glass of beer, if you like—but only one." She turned and ran toward the flight of stairs that climbed the low bank along whose crest the summer cottage stood. "Good by now," she called over her shoulder.

"Good by," David said, the late-afternoon sunlight warm upon his back, the song of her sounding deep within him. Yes, she was the one; he was sure of it now. The song said so over and over. His footsteps were airy as he made his way toward the beach house. There was none like her—none, the song sang. None like her—none. Arrayed beside her, the windfall of his inheritance was a scattering of withered apples. She was the single golden apple that had not yet fallen, and he would climb high into the branches of the tree and taste the golden sweetness of her and put to rout the hunger of his lonely years.

His uncle's beach house—he hadn't yet grown accustomed enough to his new way of life to think of the various items of his inheritance as his own—was one of the three residences among which the old man had rationed the last years of his long life. The

other two were a cottage on an isolated section of the Connecticut coast and a bungalow on *Bijou-demer*, a small island in the Coral Sea. In addition to owning the bungalow, the old man had also owned the island, and on it in his younger days he had pursued two of the very few hobbies he had ever permitted himself—the cultivation of rice and the production of copra.

The beach house was more than a mere summer home—it was a young mansion. Compared to it, the ordinary resort cottages brought to mind a collection of caretakers' dwellings. On the beach side, a green lawn patterned with elms and weeping willows spread lazily down to a low breakwall. The motif of trees and grass was repeated on the east and on the west sides, and was varied slightly in the rear by a black-top driveway that wound in from the resort road to a three-car garage.

American Colonial design, the house stood three stories high. A high-ceilinged living room ran the entire width of the first story, and from the living room two archways led respectively to an elaborate dining room and a king-sized kitchen. The second story was given over to a spacious den, a period-piece bar, a large library, a three-tabled billiard room, a big bathroom, and a huge master bedroom. The third floor was devoted

entirely to guest rooms, each of which had its own bathroom. The servant quarters were just off the kitchen and could be reached by a separate outside doorway. This was the doorway David used. He hadn't as yet shed the awe of the rich that his middle-class parents had instilled in him before they broke up, and he felt more like a trespasser than he did an owner. Moreover, the mere thought of getting sand on the thousand-dollar living-room rug appalled him.

The servants had been discharged after his uncle's death, and, other than making arrangements with someone in the nearby village of Bayville to come around twice a week and do what needed to be done to keep up the grounds, he had hired no one to replace them. Even if he had known exactly how to go about getting a butler and a cook and a maid he would have balked at the idea, not because he considered it wrong for one human being to wait on another but because having always done for himself he instinctively shied away from the idea of having someone else do for him. Besides, all his life he had yearned for the privacy that only wealth can bring, and now that he had it he had no intention of sharing it with strangers.

After undressing in the modest guest room that he had chosen for his own, he shaved and showered in the adjoining bathroom. For the

evening he donned a slacks and shirt ensemble that had cost him more than he used to pay for his suits. "For casual wear," the clerk had said, but David felt anything but casual as he stood before the mirror and surveyed himself. He felt stiff and awkward and out of place, and he looked exactly the way he felt.

He drove into Bayville for dinner. Shadows were long upon the lawn when he returned, and he sat on the colonnaded porch till they grew longer, till they fled before the soundless footsteps of evening; then he set off down the beach toward the pavilion. He had never visited the place, but he recognized it the minute he saw it sprawling on the shore, its lights leaking through its poplar-guarded windows and spilling onto the sand. The second he stepped inside, he felt lost. Young people lined the bar and crowded around the tables. All of them, it seemed, were talking at once, and their voices blending with the juke-box blare created a background roar that was downright nerve-racking. This was a place for children, not adults. David, who was only twenty-nine, felt forty.

He edged into a narrow space at the bar and ordered a beer that he didn't want. He was beginning to wish that he hadn't come; then he saw Helen and Barbara come in and take a table by one of the wide windows that looked out over the

lake. He ordered two more beers, and, carrying them along with his own, made his way across the crowded room. Helen's eyes were on him all the way, and when he set the three glasses down on the table at the end of his precarious journey,, she rewarded him with a warm "Hello". "This is David Stuart, Barbara," she said to her companion. Turning back to David, she said, "This is my sister Barbara. She writes love stories for the magazines."

Barbara gave him a long cool glance. She was wearing a white dress that brought to mind a Grecian tunic. Helen's dress was pastel pink and clung like morning mist to her golden skin. *Thy two breasts are like two young roes that are twins, which feed among the lilies . . .*

"You are the David Stuart I read about some time ago, aren't you?" Barbara asked him after he sat down. "The one who harvested the golden grain?"

David nodded. "My uncle's golden grain."

"Helen wouldn't believe me when I told her you were filthy rich."

"You talk as though being rich were a crime."

"It's only my envy showing. I have no uncles, but if I did have you could depend on everyone of them being as dirt poor as I am."

"Well I have no uncles either," Helen said, "and I don't feel a bit

bitter. Do you like being rich, David?"

"I don't know. I haven't got used to it yet."

"You should read Fitzgerald," Barbara said. "He had a complex about rich people. Perhaps you have read him."

David nodded. "Poor Julian."

"Poor David," Helen said. "Get off his back, will you, Babs?" Then, to David, "I've been thinking about what you said about gulls and old memories. It *will* be nice after all the people have gone."

"But not after you've gone. I wish you could stay."

"I wish I could too. But come tomorrow night, it's back to Buffalo."

"And back to Steve," Barbara said. "Don't forget Steve."

"Steve?" David asked.

"Steve is her true love. Didn't you tell him about Steve, Helen?"

"Don't be such a shrew, Barbara. You know perfectly well I haven't had time to tell him about anything."

David looked into his beer glass. He should have known there would be a Steve. How could there help but be?

Barbara was speaking again: "What will you do with all your delightful dough, Mr. Stuart? Buy a yacht?"

He forced himself to smile. She was beginning to bug him a little, but he wasn't going to give her the satisfaction of knowing it. "I al-

ready have a yacht. What I'd like to do is buy a typewriter and write the Great American Novel."

Barbara shook her head. "You won't, though, because you won't be pressed. Great books are written by men who need the money they bring in. Take Balzac. Take Dostoevski. Take—"

"Why not take Flaubert?" David interrupted. "He wasn't pressed."

"Not financially—no. But you may rest assured that he was pressed in other ways." She looked at him keenly. "I don't think you are, Mr. Stuart. I'll bet you've never written anything in your whole life."

David grinned. "Oh well, it was only a passing thought. Probably what I'll really do is buy a castle with a moat filled with Cutty Sark and drink myself to death. Does that fit your preconception of a parvenu any better, Miss Austen?"

"Much better." She raised her glass, took a single sip out of it, and set it back down on the table. She stood up. "I'm going to turn in early for a change, so I'll be on my way."

"Wait, Babs," Helen said.

"I can't. Don't forget to tell him about Steve now."

Barbara walked away. Helen stared after her angrily. "I can't understand it—she's never acted like that before."

David said, "I have a hunch she doesn't like me." He touched glasses. "I know you said only one, but

please drink up and have one more."

"No—one's my limit. Anyway, I think I'd better be getting back to the cottage too." His disappointment must have shown on his face, for she added, "But you can walk me home if you like, and we can sit on the beach stairs and talk for a while."

"Fine. I don't like it here anyway."

Outside, she removed her shoes. "I like to walk barefoot on the sand."

He took them from her. "Here, let me carry them."

The stars were out, but there was no moon, and the shoreline lay in pale and dreamlike darkness. The lake sighed at their feet, and a warm breeze breathed against their faces. They passed dark blurs of blankets and heard lovers whispering in the night. When they came to the stairs, Helen said, "This is where I meant. I've sat here lots of time, looking at the stars."

"All alone?"

"Yes, all alone. You're the only boy I've met this summer."

David laughed. "I haven't been a 'boy' for quite some time."

"To me, you seem like one. Shall we sit down?"

The stairs were narrow, and they had to squeeze to make it. They sat there side by side, shoulders touching. "You were supposed to tell me about Steve," David said.

"Remember?"

"There isn't much to tell. I've known him for about a year. He's asked me to marry him several times, but somehow I couldn't say 'yes'. I guess it was because I didn't know for sure whether I loved him or not."

"Didn't?"

"Did I use the past tense? Yes, I guess I must have. Because I do know for sure now."

"That you do love him?"

"That I don't."

David realized that he had been holding his breath. He expelled it softly. "I think I'd better tell you a little bit about myself," he said. "I'm frightened of my wealth, because in my heart I'm still poor. You get so used to being poor that you accept it as the normal order of things, and if you become rich overnight you try to reassure yourself by continuing to associate with the people you associated with when you were poor. And then you find out what kind of people they really are. They drive you from their doors with their envy and they hound you in public places, and there you are, stranded between two worlds—the old one that no longer wants any part of you and the new one that you're too timid to enter. I'm at sea in another respect, too. Somehow, I've always had the notion that books are as important to a man as his daily bread, and I've spent half my life reading them. Good books,

bad books, mediocre books—all kinds of books. When my mother and father got divorced—that's why my uncle disinherited them, incidentally—I was old enough to take care of myself, and I quit school and went to work. Since then, I've worked at all sorts of jobs in all sorts of different places. I drove truck, I delivered mail, I pumped gas. I did this and I did that, and all the while, I read, read, read. For about six months I worked on a Great Lakes ore boat and studied navigation in my spare time, but that didn't suit me either, and I finally ended up in Lackawanna working at Bethlehem Steel. When my uncle died, I was working the swing shift, and reading *The Forsyte Saga* in my spare time in a cheap rooming-house. You can't imagine anything more incongruous than that—or anything more pathetic. Beware of the man of many books who can't put what he's read to practical use. Beware of the dreamer. There, you can't say you haven't been forewarned."

"Weren't there any girls?"

"A few. But the only ones that meant anything to me were the ones I met in books."

"It's a shame your parents couldn't get along. Did they try to contest the will?"

"My father did—my uncle was his brother. But it was no dice. As soon as I get straightened around I'm going to set up an annuity for

him, and one for my mother too. They're both remarried and they're well off, and both of them have children and neither one of them likes to be reminded that I'm still around; but it wouldn't be right if I didn't do something for them."

"It's good to be kind to your parents. I never knew mine."

"You're an orphan then?" David asked.

"A foundling. Sort of a freakish one. Barbara's father—afterwards he became my father, too—found me one winter when he was vacationing in Florida. I was lying on a public beach, and I was naked and all tangled up with seaweed and I looked as though I was half dead. I wasn't half dead, though—I was very much alive. But I couldn't walk and I couldn't talk and I had no memory of what had happened to me. I still haven't. When dad adopted me and brought me home he estimated my age to be ten years and figured out the day and the year of my birth accordingly. He was a widower and had no other children except Barbara. She and I grew up together in his house in Buffalo. My first memory goes no further back than my eleventh "birthday." I could walk and talk by then, though not very well. After that, I recovered fast, but what I recovered from I've no idea, and I don't think any of the doctors dad took me to have either. Anyway, I wasn't mentally retarded, and with

dad's and Barbara's help I easily made up for all the school I'd missed, and managed to graduate from high school before I was eighteen. Dad gave me his wife's name, and when he died three years ago he left the house to both Barbara and me. It's a fine house, and we've lived there ever since. She does all the managing, of course—she's three years older than I am. Three years is quite a lot when you're young."

"Eight must seem an eternity," David said. Suddenly he snapped his fingers. "I'll bet that's why your sister doesn't like me—she thinks I'm too old for you."

Helen shook her head. "No, that's not why. Barbara's very broad-minded about such things. Besides, I think she does like you. Sometimes she's hard to understand." She stood up. "I must go in now, I'm afraid. May I have my shoes, please?"

"I'll put them on for you."

When she did not demur, he knelt before her in the sand. Her feet were pale blurs in the starlight. His fingers trembled at the touch of her smooth cool skin. He slipped each shoe on gently. The starlight seemed to intensify, to become rain, and the rain fell soundlessly all around him in the soft summer night. For a moment he could not breathe, and when he could he said, still kneeling in the sand, "*How beautiful are thy feet with shoes!*" He felt her hand

touch his hair, rest lightly there for a moment, then fly away. When he stood up, she stood up too, and standing as she was on the first step she was slightly taller than he was. Her starlit face was very close. The leitmotiv sounded again when he kissed her, stronger this time, then faded away as they drew apart. Yes, it was true, his heart sang. She was the one, and there could never be another like her. "Good night," he whispered gently into her hair. "Good night," she whispered gently back, and he stood there in the starlight listening to the sound of her retreating footsteps, and long after he went to bed he heard them in the deep dark recesses of the night, and in his dreams he saw her starlit gentle face again and rejoiced in her starlit gentle kiss. There was none like her, none. None like her. None.

II

The wedding had been a modest one. It took place on the twenty-fourth of December of that same year in a little church not far from where Helen and Barbara lived. Barbara was bridesmaid, and for the best man David chose the only friend he had thus far acquired in the new world in which he had recently taken up residence—Gordon Rawley, the youngest member of the law firm that had handled David's uncle's affairs and that now handled David's. That same day, David chartered a plane and

he and Helen flew to Connecticut, and night found them in the little cottage on the cliff. They could just as easily have flown to Florida, but both of them liked white Christmases too well to sacrifice this one—the loveliest, probably, either of them would ever know—on the altar of the tropics.

They remained in the cottage two weeks, hiking along the snow-crowned cliffs by day and drinking German beer in the warmth of pine-knot flames by night. Mornings, they slept late, and afterward they lingered over second coffees at the little table in the kitchen. It was here that the Great Inspiration was born. They would go for a long cruise in David's yacht, the *Nereid*, and visit his island in the Coral sea!

The *Nereid* was in Boston Harbor. After hiring a navigator and a crew, they set out on the 29th of January and braved their way down the wintry coast. When the Panama Canal was behind them, David took advantage of the serene Pacific days and nights and, with the navigator's help, supplemented his knowledge of navigation to a point where he could have plotted the course himself. Time passed swiftly. March found the *Nereid* passing between the Solomons and the New Hebrides, and not long afterward, *Bijou-de-mer* was raised.

David's uncle had loved *Bijou-de-mer* the way Stendhal had loved

Milan, but to David it was a big disappointment. He had expected to find the sort of colorful tropical paradise that travel brochures depict; instead, he found an overgrown coconut plantation and an expanse of neglected rice fields. Backgrounding the coconut groves and the rice paddies was a series of jungle-clad hills. There was a good-sized harbor, however, whose waters were deep enough for a small ship to anchor and whose beach was pure coral. An aged pier jutted from the shore, and beyond the pier a trail led from the beach to a low embankment that ran between two acreages of rice paddies to the hill on which the bungalow stood.

In back of the bungalow there was a shed containing a generator, but the generator had seen its better days, and David couldn't get it to work. The bungalow, however, was in halfway decent condition, and there were plenty of candles available. He and Helen made the necessary repairs and cleaned the place up; then they settled down to a halcyon life of swimming and fishing and general all-around loafing. She loved the sea, and awakening mornings and finding an empty pillow beside his own, he would look through the bedroom window and see her romping in the distant surf and sometimes swimming out into the blue waters beyond the place where the *Nereid* lay at anchor. Upon her return, he

would bawl her out for her recklessness, but she would only laugh, and say, "Don't be an old woman, David. The sea will never harm me."

They remained on the island for a week. Probably they would have remained longer if the rainy season hadn't set in. David had heard about the rainy season, but it was necessary to experience it in order to believe it. The rain fell in blankets, and water rushed down from the hills, turning once-gentle brooks into raging torrents. The rice paddies didn't just fill—they overflowed—and sometimes moisture hung so heavily in the air that it seemed to be raining inside as well as outside the bungalow. Everything was damp—the clothes they wore, the books they read, the towels they tried to dry themselves with, the sheets they slept on, and the food they ate. David endured it for three days, said, "I've had it, Helen—let's go home."

He decided not to go by way of the Panama Canal this time, but to proceed to Tacoma, Washington, and leave the *Nereid* with Reese and Harrison, Inc.—a ship-building concern in which he owned stock. The yacht needed innumerable repairs, and even though he knew that in the end the money he would save would be negligible, it pleased him to do business with a company that in part belonged to him. Rather than keep the navigator and the crew

on his payroll any longer, he let them go at the end of the voyage and paid their plane fare back to Boston. Then, after turning the *Nereid* over to the ship-building concern and leasing space for it at their private dock, he bought plane tickets and he and Helen returned to Buffalo. They spent the summer at the beach house, and in the fall they rented a duplex on Delaware Avenue and moved into the city.

David had yet to decide what he wanted to do with his life, and now he began trying this thing and that. But without the immediacy of having to make living to goad him on, his pursuits invariably fell into the hobby category. He bought the most expensive electric organ he could find, and he and Helen began to take lessons. It required less than a month for them to realize that at best their playing would never be anything more than wooden, and at Helen's suggestion they abandoned music and took up painting. David fared no better in this second field of endeavor than he had in the first, but Helen proved to have a latent talent of sorts, and in a matter of weeks she was turning out canvases that were remarkable for their subject matter alone. David found some of them upsetting, and one of them he found downright frightening. It depicted the interior of a huge cavern. Dominating it was an eerie castle built of crude stone blocks. Its towers were disproportionately

tall and were covered with a slimy green growth that faintly resembled ivy. In places, the "ivy" had torn loose, and was trailing outward from the towers like ragged pennants streaming in a wind. The windows were high and narrow, and the darkness behind them was unrelieved by so much as a single light. The atmosphere was unearthly. It had a cobalt-blue cast, and it was shot with strange rays and filmy phosphorescences. As though to intensify the unpleasantness of the over-all effect, Helen had painted in a scattering of weird, piscine birds.

He thought, for some reason, of Shelley's *The World Wanderers*, and the lines

*Tell me, thou Star, whose wings
of light*

Speed thee in thy fiery flight,

In what cavern of the night

Will thy pinions close now?

When he asked her what the painting was supposed to signify, she seemed confused. "Should it signify something?" she asked.

"Well I should hope so! How else can you justify it?"

She looked at the bizarre scene for some time. At length, she shook her head. "I just painted it—that's all. Maybe it's surreal, or something. But if it has an underlying meaning, I don't know what it is."

He let the matter drop. However, he disliked the canvas intensely, and never went near it again.

At this time, the leitmotiv, which had lain dormant in the orchestral background all these months, sounded once again—this time loudly enough for him to hear it.

For some weeks he had been aware of a change in Helen's habits, but he had been unable to discover its cause. Formerly, she had gone to visit Barbara once or twice a week, and often the two of them had attended Saturday matinees together and dined out afterward. Now, Helen stayed at home virtually all of the time, and once, when he asked her to go to a concert at Kleinhan's Music Hall with him, she declined with a vehemence that startled him. It was shortly after this incident that he noticed that she had taken to wearing low-heeled shoes. When he asked her why, she said that her back had been bothering her lately and that she had hoped that low heels might help it.

He thought no more about the matter. Then, not long afterward when he was going through his mail one afternoon, he came across a statement that floored him. It was from a dress shop that Helen had never patronized before, and the amount ran way into four figures. Nevertheless, it was not the amount that astonished him—it was the list of items she had bought. For it added up to something more than a mere total—it

added up to the fact that she had bought a new wardrobe.

Thanks to his insistence that she deny herself nothing, she already had more clothes than she knew what to do with. Why, then, should she suddenly have taken it into her head that she needed new coats, new dresses, new shoes, new negligees, and new underthings? And why had she kept their purchase a secret?

Maybe she hadn't meant to keep it a secret. Maybe it just seemed that way to him because he hadn't been home the day the clothes had been delivered. Still, it was odd that she hadn't made any mention of the matter—unless she wanted to surprise him. But if she wanted to surprise him she had waited a little too long.

Leaving the statement on his desk, he left his den, crossed the living room, and ascended the stairs to the second level. Helen had converted one of the three bedrooms into a studio, and she was there now, hard at work on a new canvas. He paused in the doorway, drawing a long draught of her loveliness and drinking it down to the last drop. It was one of those phenomenally warm days that sometimes occur during Indian Summer, and she had removed her shoes and stripped down to her slip. Her legs seemed longer and more graceful than ever, her arms and breasts and neck more goddess-like. A playful

October wind was wafting through the open window and ruffling a series of impromptu bangs that had fallen over her forehead.

She was so absorbed in her work that she didn't notice him till he went over and stood beside her. Even then, she didn't look up, but went on painting. The scene taking shape on the canvas was a disquieting one. There was a chasm-like valley filled with strange green plants, the tenuous filaments of which were growing straight upward in defiance of the law of gravity. Scattered over the valley floor were hundreds of tiny green disks, and farther up the valley, so deep in the background as to be barely discernible, was a series of upright rib-like timbers. In the foreground stood a copper-banded chest of the kind associated with seventeenth-century buccaneers, and on top of it lay a human skull.

Finally she laid her palette and brush aside and faced him. "Something on your mind, darling?"

He forced his eyes away from the canvas. "Yes. I thought we might go out to dinner tonight. Don our glad togs and do the town."

Her blue eyes absconded. "No. I don't think I'd care to tonight, David."

"But why not? It's been ages since we've gone anywhere . . . I should think you'd want to show off some of the new things you bought."

Her eyes came back, rested briefly on his face, then ran away again. "You got the statement then. I was going to tell you, but somehow I—" Abruptly she turned away and walked over to the window and looked down into the street. "Somehow I just couldn't," she finished.

He went over and took her shoulders and turned her around. "Don't be upset—I'm glad you bought new clothes."

"I wouldn't have bought them, only—" Suddenly she raised her eyes. "Look at me," she said. "Can't you see what's happening?"

"I am looking at you. What is it I'm supposed to see?"

"Look harder." She moved closer to him. "The top of my head used to be level with your chin—remember? Now look where it comes to!"

His first impulse was to laugh; then he realized that his lips were brushing her forehead and that her hair was level with his eyes. Instinctively, he stepped back to see if she was standing on tiptoe. She was not. For a moment, he could not speak.

"Now you know why I don't go anywhere any more," she said. "Now you know why I avoid Barbara. Seeing me every day, you haven't noticed; but other people would. Barbara would. When you don't see someone every day you can spot a change in them the minute you lay eyes on them."

"And this—this is why you bought a new wardrobe?"

"I had to—don't you see? Oh, I let the hems down on my dresses—that was no problem. But finally it reached a point where the dresses had to be let out, and I didn't know how to do it and I was afraid to hire someone to do it for me for fear they'd guess the truth. You see, I'm not just growing taller—I'm growing bigger too. My feet are growing bigger, my hands are growing bigger. I can't even wear my wedding ring any more. I—"

He took her in his arms before the tears had a chance to begin. "But don't you see," he said, "that what's happening to you is perfectly normal? You're supposed to grow until you're twenty-five!"

"I'm supposed to fill out, yes—but I'm not supposed to grow taller." She rested her head on his shoulder. "Let's not pretend, David. I've known for a long time that I was growing taller—that I'd never even *stopped* growing taller. But my growth-rate was so gradual that I didn't think anything about it. Now, it's begun to accelerate. I've grown two inches in the last two months! I'm three inches taller now than I was when you married me! I'm ten pounds heavier!"

"All of which makes you the exception that proves the rule but which certainly doesn't mean you're going to go on growing taller."

She didn't seem to hear him. "With high heels on I'd be as tall as you are!" A shudder shot through her. "Oh, David, it's not fair!"

"I'll tell you what," he said. "Tomorrow, we'll pay your family doctor a visit and let him put your fears to rest. But tonight, we'll get dressed and go out to dinner, and afterwards we'll take in a show. You've been cooped up here for so long that you've imagined yourself to be taller than you really are. Why, I'll bet if you measured you'd find that at the most you've only grown half an inch!"

"Don't you think I *have* measured? Don't you think—"

"All right then—you have. But it's nothing to worry about. Come on, get ready and we'll go. If there's any worrying that needs to be done, I'll do it."

All the while he was getting dressed he tried to convince himself that there was none, but he didn't quite succeed. He didn't know very much about gigantism, but he knew enough about it to ruin his dinner and to spoil the movie that they went to afterward. If Helen really was suffering from the condition, her continued growth wasn't necessarily going to stop at three extra inches and ten extra pounds. It could go on and on till she turned into the freak she already imagined she had become.

But Doctor Bonner, Helen's fam-

ily physician, didn't share David's premonitions. After giving her a complete physical, he said that he had never seen a healthier woman. There was no indication that normal ossification hadn't occurred, and she showed no signs of the physical weakness that usually accompanies gigantism. Like David, he didn't believe that she had grown nearly as much as she thought she had, and he told her that she had gotten herself upset over nothing. "I hereby pronounce you physically sound," he said. "If you suffer from any more growing pains," he added with a grin, "be sure to let me know."

"I don't think he believed a word of what I told him," Helen said on the way home. "Why, he treated me like a little child!"

"But don't you think," David suggested, "that part of it might be your imagination? Maybe you grew an inch, or maybe even an inch and a half, but three seems a little far-fetched."

"But I tell you that I *did* grow three inches! Three and a quarter inches, in fact!"

David laughed. "All right—I won't argue with you. But apparently they're perfectly normal inches, so I don't see what harm they can do. It's stylish for girls to be tall these days."

Suddenly, she smiled. "Well if you don't mind, I certainly shouldn't. Do you know what?—I think I'll go see Barbara this afternoon."

She did, too. She returned, radiant. "Barbara didn't even notice till she saw that I was wearing low heels. It's funny, isn't it, how everybody thinks they're the center of the universe and that if they even so much as comb their hair different, the whole wide world will sit up and take notice right away? I feel like celebrating. Do you think you could stand a date with the same girl two nights running, Mr. Stuart?"

"Only if she happens to be a lovely number I happen to know. Let's go as we are—I know a small cafe where it won't matter what we wear."

"I'll redo my face and be with you in a minute."

The evening that followed, he reflected afterward, constituted the last carefree hours they ever spent together. During the next week Helen grew another inch, and by the end of the month she was as tall as he was.

III

The second time they had visited him, Doctor Bonner's professional joviality had failed to manifest itself. Doctor Lindeman, the specialist to whom he promptly referred them, gave Helen another complete physical, but he couldn't find anything wrong with her either. He asked her to tell him the history of her life, and after she complied he questioned her about the years preceding her eleventh

"birthday." But she could tell him nothing. Finally, he made arrangements for her to spend a week under observation at the hospital to which he was attached. At the end of the week he didn't have any more idea of what was wrong with her than he had had at the beginning of it.

They tried other specialists, both in Buffalo and in other cities. None of them could throw the slightest light on the cause of Helen's gigantism. Meanwhile, she continued to grow, and as her size increased, so, too, did her sensitivity. To ease her embarrassment, David began wearing shoes with Cuban heels. For a while, he was able to maintain the illusion that she was no taller than he was, and when she continued to grow he managed to maintain the illusion for a while longer by having a shoemaker increase the thickness of the heels. But it was a makeshift subterfuge at best, and at length he abandoned it. By this time, Helen was two inches taller than he was, and almost equalled him in weight.

The only aspect of her affection that enabled her to endure it was the fact that she grew proportionately. For all her budding giant-hood, she still possessed the same symmetry and grace she had known before, and whenever he saw her at a distance with no familiar objects to compare her to she looked exactly as she had looked

a few short months ago. But this perspective was soon denied him, for the time came, as he had known it would, when she refused to leave the apartment.

Keeping her supplied with food posed no problem as yet, but keeping her supplied with clothes did. Her shoes, her dresses, her coats—everything had to be made to order. In view of the fact that she no longer went out, the coats could have been dispensed with, and she even said as much; but David wouldn't hear of such a thing. He was determined that she should have clothes for all occasions, whether she wore them or not.

When their first anniversary came around, she was six feet, six inches tall. The only visitor she allowed in the apartment was Barbara, and it was Barbara, dropping in every other evening, who was making it possible for Helen to go on. David did all he could to keep up her morale, insisting over and over that he loved her more than he had before; yet even though she knew he was telling the truth, the knowledge wouldn't have been enough to sustain her. She needed additional assurance that she was still wanted, and Barbara supplied it.

If anything, David's wife was even lovelier on this, their first anniversary, than she had been the day he married her. Her complexion should have been sallow from lack of sunlight. Instead, it was

radiant. Moreover, her skin had a golden cast, and seemed to glow as though strange fires burned within her. For weeks, he had hoped that in honor of the occasion she would consent to go out to dinner with him. But when the occasion actually arrived even he was dubious about subjecting her to such an ordeal, and he was more relieved than disappointed when she insisted on staying home.

He had a magnum of champagne sent up, and engaged a catering service to prepare and deliver a special wedding dinner. With Helen's help, he set up the Christmas tree he had brought home that afternoon, and afterward they trimmed it together. Then they exchanged presents. For David, Helen had bought—via Barbara—a calendar wrist-watch. For Helen, David had bought a new easel—taller, but not obtrusively so, than the one she had—and a dozen canvases. They toasted each other in champagne, and sat down to dinner. The evening didn't begin to compare with their first evening together in the Connecticut cottage, but the hours were precious for all that, and David knew that he would never forget them.

Christmas went its way. The New Year honked its tinsel horns, and then was heard no more. Helen continued to grow. Her growth-rate involved a form of arithmetical progression now, and it seemed to David that every day

she became perceptibly taller. And as her height increased, so, too, did his desperation. There was utterly nothing he could do. She was so sensitive about her condition by this time that she wouldn't have consulted a specialist even if he or Barbara could have found one capable of helping her. What bothered him almost as much as her ineluctable increase in size was the effect that severing herself from society would eventually have upon her. And there was yet another source of worry. He loved her more than he ever had, and she returned both his affection and his passion; but there was a ludicrous quality about their relationship now—a ludicrous quality that had imposed a psychological handicap upon a race that was already half lost. The knowledge that eventually the race would be lost altogether preyed upon his mind with greater and greater frequency as winter gradually gave way to spring and the young giantess in his house attained ever more terrifying proportions. He began awakening just before dawn and lying sleepless between cool sheets, staring at the outsize bed next to his own and listening to her breathing, and sometimes his thoughts would match the gray cast of the early-morning sky and the grayness would linger with him all through the day.

No, it could not go on like this. There was nothing he could do

about her gianthood, but there was something he could do about her environment. The beach house, with its high ceilings and its commodious rooms, would do for now. Later on, more permanent arrangements could be made. But he needed help; he could no longer hoe his row alone. On a rainy evening late in April, he went to see Barbara.

The rain was coming down in sheets when he parked his car in her driveway and ran across the lawn to the verandah. As he climbed the steps, *deja vu* transiently tinged his thoughts, bringing a frown to his forehead. Was Barbara somehow associated in his mind with rain? *Would she be someday?* . . .

From beyond the door came the clatter of typewriter keys. He rang the bell, and the sound ceased. Presently he saw her coming down the hall. She was wearing slacks and an old sweater. Her dark-brown hair, always recalcitrant, had an almost savage mien about it as it tumbled halfway to her shoulders. Her cool, gray eyes seemed to see him standing on the verandah even before she switched on the outside light. They registered surprise for a fleeting second, then returned to their cool gray selves. "Come in, David," she said, opening the door. "It's not a fit night for either man or dog to be abroad."

He almost abandoned his plan

then and there. He had never been able to cope with her cynicism because he had never been able to determine how much of it was directed toward him in particular and how much of it was directed toward the world in general. Only his desperation saw him through.

Barbara helped him off with his trenchcoat, hung it on a rack in the hall, and showed him into the living room. "How's Helen?"

He shook his head. "The same."

She sat down on a low-backed sofa and he sat down facing her in a low-backed chair. Through a doorway on his right he could see the den in which she had been working. A rebuilt standard stood on a desk cluttered with papers. There were reference books piled everywhere. At the rear of the living room, another doorway gave into an unlighted dining room. On the wall above the sofa hung a framed collotype of Sargent's "Daughters of Edward D. Boit". David remembered the picture well from the days when he was courting Helen.

He leaned forward, rested his elbows on his knees, and looked down at his hands. "Barbara, I want you to come to work for me. I want you to help me take care of Helen."

There was a silence. Presently a lighter clicked on, and a moment later a bluish veil of cigarette smoke came between them. Finally, he heard her voice: "You're

like everybody else in this tinker-toy utopia, aren't you? You think that the whole thing was set up for you and you alone, and that when crevices appear in your walls everybody should drop whatever he or she is doing and come to help you shore them up."

He lifted his gaze to her face. Her gray eyes were even cooler than they had been before. "You can go on writing," he said. "There shouldn't be too many demands on your time—and I'll pay you whatever you say the job is worth."

"Money heals all wounds, doesn't it, O noble physician? Well, I can assure you that it won't heal mine. But that's beside the point." She got up and walked over to the mantel and leaned against it, staring at the wall. Abruptly, she turned and faced him. "Yes, I'll come to work for you, noble David. But not because you've offered me a sinecure that won't interfere with what, presumably, I really want to do. I'll come to work for you because you've provided me with an escape route from futility. Because you've freed me from the necessity of writing simpering boy-meets-girl fairy tales to earn my daily bread. I'll wash and I'll iron and I'll cook and I'll sew, but I'll never again demean my intelligence by using it to turn out fairy tales about silly paper dolls who meet each other on planes and trains and rafts and fall two-

dimensionally in love between Lucky Strike and Betty Crocker ads. Yes, I'll come to work for you, noble David. Indeed, I will!"

Dismayed, he said, "But I don't want you to give up writing, Barbara. That's the last thing in the world that I want."

"But don't you see?—it's what I want. A person can go on doing something in good conscience only so long as she believes in what she's doing. But when she stops believing, it's time for her to stop. I should have stopped long ago, but somehow I couldn't bring myself to. Now, I've made up my mind . . . How tall is Helen now?"

He shrugged. "An inch or so taller than when you saw her last, I suppose. I guess it's a process that goes on forever."

"Well she can't go on living in that apartment—it must seem like a prison to her. We'll have to take her some place else."

He nodded eagerly, aware that his burden had already grown lighter. "Yes. We can stay at the beach house till the cottagers start coming out. She'll have plenty of freedom there. Meanwhile, I can look around for a better place. If I have to, I can buy a whole farm and fence it in. An isolated one with a big house. There're plenty of them in the hills beyond Bayville." He got to his feet. "I'll go out to the resort tomorrow and get the place ready. You can be packing and making arrangements to

close up the house, and later on in the week I'll buy a van and we'll move."

She faced him across the room. "I make lousy coffee, but you're welcome to a cup before you go."

"I think I'd better take a rain check." (Now why had he used that expression? he wondered.) "Helen expects me back right away."

"You still love her very much, don't you."

"Of course."

"I'll bet you'd still love her if she grew to be a hundred feet tall . . . Would you?"

He felt uncomfortable. "I suppose I would."

The cool gray eyes were full upon him. *"And it came to pass in an evening-tide that David walked upon the roof of the king's house: and from the roof he saw a woman washing herself; and the woman was very beautiful to look upon . . . And thus did David see Bathsheba and fall in love. But unknown to him he was victimized by a state of mind and a set of circumstances, and regardless of what woman he had seen at that particular moment he would have fallen in love."*

"Which means?" David said, frowning.

"That Bathsheba was in exactly the right place at exactly the right time. I'll get your coat."

He followed her into the hall. Outside, the rain drummed on the

verandah roof, made gurgling sounds in the cave troughs. Her hand touched his as she helped him on with his coat. It was the briefest of contacts, but suddenly he knew. Knew the way it was with her and the way it might have been—and still might be—with him. And simultaneously he knew that far from simplifying his problem he had merely complicated it.

She opened the door. "Good night," he said without looking at her, and hurried out into the rain.

IV

The last shoemaker had laughed in his face, and it seemed that he had been walking now for hours. He knew that this could not be so, that the time-lapse had been to a large extent subjective. Hours would have brought on the winter night, and dusk was still on hand. Lights were more in evidence, though—street lights and car lights, and the lights of colored bulbs strung on pine and spruce and ornamental arborvitae. Barabbas would have loved such a gaudy display, and maybe that was where everyone had gone wrong in the first place. Paying lip-service to the one and groveling at the feet of the other. Tinsel twinkles like a two-edged sword, and merchants are highwaymen in houses. Give us this days your daily dollar, for ours is the kingdom of commerce. It was Barabbas—not Christmas—Eve.

David fed the iron kettle of a gaunt, bell-clanging Santa, and turned down a different street. The lights were coming into full bloom now—the reds and greens and yellows of the Druid lights and the bright glares of the automobile lights and the fluorescent fires of the store lights. The garden of the city knew not Gethsemane, but it knew Prosperity. Hordes of last-minute shoppers trooped in and out of doorways. Carolers raised pious voices to stars that neither heard nor cared. The annual emotional binge was at fever pitch. Tomorrow, there would be relatives and turkey, and stodgy afternoons. Dusk, then sleep . . . the rude awakening. Even Barabbas should have known that gold and glitter do not make for better dawns.

Snow began drifting down between the rows of buildings in large and gentle flakes. *The poetry of earth is never dead . . .* but ah for the poetry of a new pair of shoes!

There was a shoe store up ahead, but David's footsteps did not quicken. It was the creators of shoes whom he sought, not the sellers. Today, "shoemaker" was a misleading word. It meant "repairer" not "maker". Today, machines made shoes, and vague people in vague factories helped the machines along; but for one man to take on the job alone, for a shoemaker to *make* a pair of shoes?—"You must be craze, mister. I fix

the shoes—yes. Make the shoes? Make such *big shoes*? You must be crazy!”

When he came abreast of the shoe store he stopped and looked into one of its two windows. It was the woman's side, and all manner of feminine footwear was on display. There were high-heeled shoes and low-heeled shoes and shoes with pointed toes; there were scuffs and step-ins and sandals. A pair of white pumps caught his eyes, and he stood there staring at them, shoulders hunched against the cold and the snow and the passers-by, ears deaf to the Christmas carol oozing ingratiatingly from a loud-speaker above his head. The sighing of the lake along the shore came sweetly back to him; he smelled the sweetness of the summer night. Kneeling before her in the sand, he slipped the white pumps on her feet, his fingers trembling to the touch of her smooth cool skin. The starlight seemed to intensify, to become rain, and the rain fell soundlessly all around him . . . *How beautiful were thy feet with shoes!* . . .

Sitting in the house that afternoon, he hadn't been able to stand it any longer. The small house on the hill that overlooked the adjoining farms he had bought that spring. The small house in the hills beyond Bayville that he and Barbara shared like brother and sister. Through the living-room window he had looked down the

snow-covered hillside to the big house where Helen lived—the big house that he had remodeled himself and to which he and Barbara had brought her in the van when the cottagers had started coming out weekends to cut their little tracts of grass. The big house with the outsize front door and the raised ceilings and the knocked-out partitions; the big house where Helen spent her lonely giant's life. There were woods all around, and enclosing the grounds was an electric fence. There was a small lake where she could swim during the warm months, and there were fields where she could run and play. The people of the nearby hamlet of Timberville were unaware of her existence, and, God willing, would remain so. Barbara made her clothes and cooked her food, and he had made the bed on which she slept and the chairs on which she sat and the table at which she ate. He had made her many special things, but he couldn't make her special shoes. Shoe manufacturers would have laughed at him if he had told them what he wanted, or, even worse, have tried to find out why. Yes, it was Barabbas—not Christmas—Eve.

A package brushed against his shoulder. "Excuse me," someone said. He did not look to see who it was, but continued on down the street. There was only one more name on the list of shoemakers that he had compiled from the Buffalo

directory before climbing into his pickup and setting out. The shop was in the next block.

He would try once more.

It was a narrow shop, sandwiched between a false-fronted haberdashery and a false-fronted variety store. A single light burned in the window—a sad little light that hung from the ceiling and did more to betray the fact that the ceiling needed painting than it did to reveal the concomitant fact that the shop was open. Flaked letters on the window glass said, *Shoes Repaired While U Wait*, and above the narrow doorway other flaked letters proclaimed the establishment's name: FRANCONI'S SHOE SHINE PARLOUR.

A stooped old man was standing behind a small counter, buffing a pair of oxfords on an electric buffer. At David's entry, he laid the oxfords aside, turned off the buffer, and faced the counter. He made an almost imperceptible bow. "Good evening, sir," he said, giving the "evening" three meticulous syllables. "I am Mr. Franconi."

"Good evening," David said. "I wonder if you can help me."

Mr. Franconi stood up a little straighter. This did not make him tall, but it did something for his stooped shoulders that definitely had needed to be done. "It is shoes you want, sir?" he asked, eagerness in his voice.

"Yes."

"New shoes?"

"Hand-made shoes. Women's. But—"

Mr. Franconi stood up straighter yet. Excitement colored his face, lent it an almost youthful cast. "You have come to the right place, sir. It has been many years, but I, Anthony Franconi, was once a first-class maker of shoes, and one does not easily forget an art one loves. How soon do you want them, sir?"

Hope had come alive in David's breast. "Tonight. They're to be a Christmas present."

"Tonight!" Mr. Franconi breathed in, breathed out. "I—I am not sure, sir, that I can—"

David said, "It may be even more difficult than you think. They are not . . . ordinary shoes."

"They are not?"

David swallowed. "I want them to be white. And they're to be quite big."

"How big, sir?"

Again, David swallowed. Then he took a notebook out of his pocket and opened it to the page where he had set down the dimensions he had carefully calculated before leaving for the city. After he read them, a silence settled in the shop.

At length, Mr. Franconi asked, "You said they were to be a Christmas present?"

David nodded. "To show you I'm sincere I'll pay you right now if you'll say you can make them. Can you make them?"

"No," Mr. Franconi said.

A heaviness came over David; a weariness such as he had never known. He said, "Thanks anyway for not laughing," and started to turn away.

"Why did you wait till the last minute?" Mr. Franconi asked. "Given enough time, I could have made such shoes."

"I didn't think. We'd been wrapping her feet in— It seemed impossible that— I didn't think, that's all. Good night, Mr. Franconi."

"Wait," Mr. Franconi said. "I have such a pair of shoes."

Disbelievingly, David faced him. "You *have* such a pair?"

"Yes. They are just about the size you say, and they are white. It is almost like providence, is it not? I make them for an advertisement display five years ago, and the shoe company who give me the order say that after the campaign is over they are going to cut up the leather and use it to make regular shoes. So I tell them I will buy them back. It is a shame for such workmanship to be torn apart—workmanship their factories cannot even dream of. . . . The shoes are stored above the shop. You would like to see them?"

"Yes," David said. "Very much."

He followed Mr. Franconi up a narrow flight of stairs. The old man switched on a ceiling light, revealing a long narrow room cluttered with odds and ends. "Over here, sir."

In a dim and dusty corner, he drew back a length of canvas. "They are beautiful, are they not?"

David gasped. Then he stepped forward and touched the nearer shoe. It was as soft as foam. The line of the heel and the instep was as trim as the line of a clipper ship. The toe was slightly pointed, and, relatively speaking, the heel was of medium height. The material was calfskin, and as white as new-fallen snow. "Burke didn't understand."

"Burke?" Mr. Franconi asked.

David smiled. Where cold had once resided around his heart, warmth reveled. "Burke was an eighteenth-century British statesman who thought he knew a great deal about beauty. . . . I would like to buy the shoes, Mr. Franconi, if you will be so kind as to sell them to me."

The old man was looking at him puzzledly. "You have a friend who is in shoes, perhaps? Who wishes to put on a display?"

"No. But they will be on display in a way. Will you sell them to me, Mr. Franconi?"

"They will not be torn apart?"

"Never. I can promise you that."

"That is what is important. For years, they have lain up here, collecting dust. Fine shoes should be worn. Of course, I know that such shoes as these cannot be worn, but they should serve a useful purpose. You have a car, sir?"

"I have a pickup. It's in a park-

ing lot a dozen blocks from here."

"Come then, we will take the shoes downstairs, and you will go and get your pickup and we will load them on."

Carrying a shoe apiece, they descended single file to the shop. From a nearby phone booth David called a cab, and when it arrived he went for his pickup. The aspect of the world had changed. The sound of carols was haunting now; there was beauty in the multicolored lights. Barabbas had forsaken the streets, and people were going home to firesides and families. David could go home now, too. For now he had the means to fill a Christmas stocking. *How beautiful are thy feet with shoes!*

When he parked the pickup at the rear of the small house, Barbara came out on the back porch. "David, where in the world have you been? It's almost midnight!"

He got out of the cab and walked around to the truck bed. "Barbara, wait'll you see! It was a miracle almost. Come here. Look!"

Hugging herself to thwart the cold, she descended the porch steps. He threw back the tarp with which he had covered his purchase. "Look!" he said again.

It had stopped snowing, and the stars were out, and to him the shoes had something of the aspect of a pair of Cinderella slippers. But not to Barbara. She took one look at them, then swung around and

faced him. "David, you're a fool! After all the trouble we've gone to keep this thing a secret, buying our supplies in different towns and letting on that we're a pair of eccentric writers so that no one will come near us, you go out and pull a trick like this! Why, it's like hanging up a sign with the word 'giant' on it and with an arrow underneath pointing to our door! You know how people are. You know how newspapers are. How could you do such a quixotic thing?"

Hurt, he said, "I bought them in the city. From an obscure shoemaker the world forgot about years ago. No one'll ever know."

"You *think* no one ever will. But you don't *know*. In our position we can't afford to take chances. We just don't have enough privacy to risk arousing curiosity. We—" Suddenly, she paused, looking at him. A moment ago, he had been standing tall and straight. Now, his shoulders had slumped, and he was staring at the ground. "Poor David," she said softly. And then, "They are lovely, aren't they? Come on, we'll take them in and wrap them."

His shoulders straightened, and he looked eagerly into her eyes. "Do we have a big enough box? And enough wrapping paper?"

"I saved the box that the new sewing machine came in. That should do. Come on, we'll manage somehow."

They carried the shoes through

the kitchen and into the living room. The floor was covered with bolts of calico, percale, and jersey. David cleared a space, and they set to work. The sewing-machine box proved to be large enough, but wrapping it took all of the Christmas wrapping paper they had. "Darn!" Barbara exclaimed. "Now I won't be able to wrap *your* present."

"And I won't be able to wrap *yours*."

She smiled at him across the painted patterns of Christmas bells and holly. "We'll have to put them under the tree when the other of us isn't looking. Come on out in the kitchen and have your supper—I kept it warming in the oven."

He ate at the kitchen table, and she sat opposite him, sipping coffee. The meal was delicious. All of Barbara's meals were. There was nothing she couldn't do, and everything she did, she did well. When he finished, he pushed back his chair and stood up. "I'll help you with the dishes, then we'll take the present down to the big house."

She had been looking at him all the while he ate. Now, she looked away. "Never mind the dishes. You take it down now, and I'll join you later."

"All right. I think I'll use the pickup."

After placing the box in the truck bed, he climbed into the cab,

started up the motor, and drove down the winding lane that led to the big house. Once, he had lived in the big house himself—before it had grown too small. The shutters were closed, but some of them didn't fit snugly, and in places crevices of yellow light warmed the darkness. When he came opposite the portico, he turned the pickup around and backed up to the front steps. He braked, turned off the motor, and got out. The tailgate was on a level with the portico floor. Shouldering the box, he walked over to the outsize doorway. He felt proud when she opened the door. Her giant's beauty rained down around him as he stepped across the threshold. He carried the box across the outsize room and set it under the big pine tree that she had trimmed. She was wearing the white dress that Barbara had made for her out of one of the surplus parachutes he had bought. It was caught around her waist in deft plaits and rose up like filmy clouds around her Junoesque breasts and fell like swirling snow around the columns of her lovely legs. The surprise and pleasure on her face was like a sunrise.

"Merry Christmas, darling," he said. "Happy Anniversary."

She knelt beside the box like a little girl. She tore away the wrappings with gigantic girlish fingers. When she saw the shoes she began to cry.

V

That spring, despite David's objections, Helen had begun swimming in the lake as soon as the ice melted. The temperature of the water didn't daunt her in the least, and he began to suspect that changes other than those pertaining directly to her increase in size were taking place in her. But he didn't have a chance to give the matter much thought, for, late in April, an incident occurred that caused him to decide overnight to sell the farm and to depart for the west coast.

Thinking back later on, he realized that he had been a fool to think that the citizens of Timberville would go on respecting his electric fence and his no-trespassing signs forever. No doubt, most of them would have, but it had been inevitable from the beginning that at least one of them would not. The exception to the rule, whom Helen described as "a gray-haired scarecrow of a man" when she told the story afterward, got past the fence somehow (probably by wriggling in under it), walked through the woods, and came out on the shore of the lake just as she emerged from the water. When he saw her, he turned into a real scarecrow, and his face went from dirty white to white. Finally, it turned blue. Apparently, he had planned on doing a little poaching, for there was a .22 rifle in the

crook of his right arm. But he did no poaching that day. The rifle fell to the ground, and a moment later he was off through the woods, moving at a pace that would have done credit to the little animals he had come to kill.

Helen had been more amused than embarrassed, but her unexpectation reaction didn't diminish the seriousness of the situation. It was a foregone conclusion that the man would talk about what he had seen, and, while it was also a foregone conclusion that no one would believe him, curiosity would be sparked and the farm would be the center of it. Sooner or later, others would manage to get past the fence, and it would be only a matter of time before someone spotted Helen's footprints or Helen herself. The ball would start rolling for real then, and before long the newspapers would take up the story.

David had known all along that there was only one place that could provide Helen with the privacy she needed—*Bijou-de-mer*, his island in the Coral Sea. But he had put off taking her there because it represented a place of no return. He knew now that he could put off taking her there no longer.

He knew also that there was only one way the job could be accomplished without betraying her secret.

On the morning after the incident, he drove the pickup into the

city, sold it, and brought a tractor and a thirty-foot trailer. He had never let his chauffeur's license expire, so all he had to do to get the job on the road was to get the necessary license plates and to take out the necessary insurance. This done, he visited Gordon Rawley, gave him the keys to the big and the small houses, and told him to arrange for the sale of both farms. Then he gave Rawley a blank check and asked him to get him a master's certificate, real or forged, and to send it to him in care of the Tacoma ship-building concern of Reese and Harrison, Inc. Rawley objected at first, but at length he gave in, and David departed, saying he would get in touch with him later.

His next stop was a public phone booth. Here, he put in a call to Reese and Harrison, Inc., and by offering them a handsome bonus got them to agree to make certain changes in the *Nereid* and to have it ready and waiting for him a week hence. Then he climbed into the tractor and drove back to the farm.

He and Helen and Barbara spent the rest of the day loading the supplies and the other items they would need into the trailer. They piled boxes, trunks, and suitcases against the head and secured them in place by means of heavy eye-screws and a stout clothesline. There were eight mattresses available—the six that Helen slept on

and the ones on David's and Barbara's beds. They arranged them two abreast on the floor of the trailer and covered them with blankets. In the remaining space they stored the sewing machine and the bolts of dress goods.

After the evening meal, David put up brackets on the trailer's inner walls for the three 6-volt flash-lamps they had on hand, and Barbara began roasting the three large cuts of beef that remained in the deepfreeze. The brackets finished, David installed the flashlamps; then he cut several inconspicuous vents in each of the side walls. Toward dawn, Barbara dyed her hair blond, and David and Helen went down to the big house, hauled the outsize furniture outside, and burned it. By sunrise, they were on the road.

A few miles west of Bayville, David pulled into a small filling station and gassed up. Had he forgotten anything? He didn't think he had. Barbara had faked a bill of lading showing a fictitious cargo of furniture destined for a fictitious factory in Tacoma; he was traveling under his own name, and she was traveling as his wife Helen; he had a thousand dollars in cash and a check book in which he could write five-figure amounts should the occasion arise; among the supplies in the trailer was an easy-to-erect sportsman's tent in which he could sleep nights while Barbara bedded down in the commodious

cab. No, he hadn't forgotten anything—he was sure he hadn't.

Nevertheless, he had. He had forgotten that when people burn their bridges behind them and take to the open road the moral traces that otherwise would have been strong enough to keep them in line sometimes snap.

Owing to the nature of his cargo, David ruled out throughways and stuck to the regular highways where it was possible, though seldom easy, to find secluded spots to spend the night. Invariably, this involved turning off the main route and driving a considerable distance down some unfrequented country road, but it enabled Helen to get the exercise she needed.

On the third night, the road he chose wound through an extensive woods to the shore of a small lake. The place was ideal, with no sign of human habitations anywhere save for a few deserted cottages on the opposite shore. After "spotting" the trailer in a clearing some distance back from the beach, he pitched the sportsman's tent in a grove of willows that came almost down to the water's edge. Despite the time of the year, Helen went for a swim, while Barbara busied herself preparing supper on the small gasoline stove they had bought on their second day on the road. They ate on the beach, in the chill wind blowing in from the north. Helen, although still wet from her swim, didn't seem to mind

the cold at all; but the wind went right through David, and he saw that Barbara was shivering.

It had been a bad day for both of them. Shortly before noon, one of the inner rear tires of the trailer had blown, and he had put in a grueling hour and a half changing it, with Barbara helping as best she could. An hour later, the spare had gone, and he had done then what he should have done in the first place—driven on to the nearest truck stop. After a delay of another hour they had hit the road again, with the original tire repaired and serving as a spare, and a brand new one supplanting it. Then, less than an hour later, one of the inner rear tires of the tractor had blown, and another hour and a half had gone down the drain. Yes, it had been a very bad day.

He wondered if Barbara was as tired as he was. As discouraged and as depressed. He looked at her, but darkness had fallen and he could barely see her face. Helen had returned to the trailer by this time, and they were alone on the beach. "I think I'll build a fire," he said.

She helped him gather the wood. They piled it in front of the tent, and after the fire was going good they sat down in the doorway and warmed themselves before the flames. Glancing at her sideways, David wondered whether he liked her better as a blond. He decided that he didn't. "The

first thing you're going to do when we reach *Bijou-de-mer*," he said, "is to dye your hair back to its natural color."

She stared at him. "Why am I going to do that?"

"Because you look better with it natural. Anyway, I don't like the idea of my—my—" He paused, confused.

"Go on—finish what you were saying."

He forced himself to meet her cool gaze. "It doesn't mean anything. It's just that I've gotten so used to living in the same house with you and so used to having you cook my meals and wash my clothes that I—I—"

"That you've come to think of me as your wife—is that it?"

Wretchedly, he stared into the fire. "It's crazy, isn't it?"

"Positively insane."

He continued to stare into the fire because he didn't want her to find out what was in his eyes. But she didn't have to find out—she already knew. He felt her cool fingers touch his cheek. "Poor David. Poor virtuous, noble David. You did see me after all."

"See you? See you when?"

"When you climbed up on the raft. I thought you hadn't, and I was furious. I've been furious ever since. Because I saw you."

There was a dam, and his body was its concrete and its reinforcing steel and against him tons and tons of water pressed, seeking to

break him apart. "People like you are different from people like me," Barbara went on. "Your idealism sets you apart from us, and we know in our hearts that you're better than we are. And so we try to drag you down to our own level. But we're not really trying to drag you down—it only seems that way. What we're really trying to do is to lift ourselves up."

Still, he did not look at her. But he no longer needed to. For she was all around him in the night. His golden moment had been but fool's gold. This was the way it had been meant to be all along.

When he finally turned toward her, her face was so close that he could feel her warm breath on his lips. The dam broke then, and the water raged around him. The stars dissolved in the sky, and the sky opened, and all was darkness; all was light. All was love.

After that, the trip to the coast had turned into a series of tense, drawn-out days and eagerly awaited nights. From sunrise to sunset, there would be Barbara riding at his side and his self-hatred riding on his shoulders. Then there would come the time of terror—the evening hours when they would watch Helen as she walked up and down in some unfrequented canyon or gamboled in some deserted dale. Surely, looking down upon their faces she must descry their guilt, must di-

vine what would take place later on in the darkness of the sportsman's tent while she slept in her ten-wheeled bed. But if she either descried or divined, she gave no sign.

At last, they reached Tacoma. When David found that his master's certificate had arrived, he wasted no time in getting started. After settling up with Reese and Harrison, Inc. and making arrangements with them to store the tractor and trailer in one of their unused sheds, he bought the additional supplies and equipment that would be needed on *Bijou-de-mer* and had everything delivered to the private dock where the *Nereid* was berthed. Late that same night when he was sure the dock was deserted, he drove the tractor and trailer onto it and he and Barbara and Helen loaded everything on board, including the items they had brought with them from the farm. Among the new items were two refrigerators, a deepfreeze, a washing machine, a new generator, and twenty drums of gasoline. These, Helen handled like so many toys. When the job was finished, she secreted herself in the special below-decks cabin that the ship-building concern had converted the yacht's forward section into, and David drove the tractor and trailer to the Reese and Harrison, Inc. shipyards. After turning the outfit over to the night watchman, he re-

turned to the dock, and by morning the *Nereid* was well on its way down the sound.

The voyage to *Bijou-de-mer* proved to be even more nerve-racking than the trip to the coast. David had a good grasp of navigation and he was sufficiently familiar with the engine room to take care of the necessary maintenance jobs, but he wasn't used to being at sea with no one except himself to turn to should anything go wrong. And then there was his omnipresent fear that Helen would find out what was going on behind her back. All that made the long days and nights tolerable were her ever longer absences from the yacht. At first she contented herself with swimming along beside it, but as time passed she swam farther and farther out into the sun-bright wastes, sometimes so far that her golden hair blended with the sparkling waves and she became invisible. David would relax then, for he knew by this time that she belonged more to the sea than she did to the land, and if it was his tour of duty, Barbara would come to him in the pilot house, and if it was her tour, he would go to her.

They raised *Bijou-de-mer* on the 20th of June. Unloading the supplies and equipment was a simple enough operation with someone like Helen around, but it took the better part of a week to get the bungalow back into shape,

to install the new generator, and to assemble the Quonset hut he had bought her. After that, time faded into a dreamlike sameness of days and nights interrupted only by the periodic—and carefully prepared for—appearances of the supply ship he had engaged to bring in fuel and fresh provisions from New Caledonia. Helen spent more and more time in the sea, and the changes that he had suspected were taking place in her began to be visible. Weeks lengthened into months; Christmas Eve came, and was duly celebrated with champagne. David wished Helen a Happy Anniversary and she wished him one back; he spent the night walking the shores of the island and she spent it swimming far out to sea. New Year's Day came round, but no one paid any attention to it, and after a while it went away.

At length, the rainy season began.

VI

It had seemed to David as he sat in the bungalow that day that the rain had been falling for centuries. Raising his eyes from the book he was reading, he looked through the window and out over the misted rice paddies to where the *Nereid* lay at anchor in the harbor. Beyond the yacht, the curtain of the rain became impenetrable, but in his mind he

could see through the curtain and out to sea—far, far out to where Helen swam, her hair golden on the gray, pock-marked waves. She was as much a part of the sea now as were the dolphins that sometimes romped around her, as were the flying fish that sometimes skimmed the waves of her wake; as was the plankton that now constituted her only food. She had found her world, Helen had; but he had yet to discover what kind of a world it was.

He returned his attention to his book. It was a book on giants and he had brought it with him from the states, but for all the times he had read it, it had told him next to nothing. The giants and the giantesses it dealt with were mythological giants, and the giantess he was concerned with was real.

According to history, there had been no giants at all, but according to legend, there had been many. There was Poseidon's son, Polyphemus, whom Odysseus had blinded. There were the Titans, whom Zeus—presumably at least—had hurled into the sunless abyss of Tartarus. And there were the giants of the Asgard pantheon.

But in the last analysis, what was history? As far as the dim and distant past was concerned, wasn't it a sophisticated interpretation of the very legends it pretended to disdain? Who could say categorically which elements of

those legends were true and which of them are not? Maybe there really had been a race of Titans, and maybe the forces of nature, as symbolized by Zeus, had destroyed them in some way. It was even possible that they hadn't been destroyed, but had returned to the sea. If it was going to be argued that all life originally came from the sea, then it could also be argued that all life eventually returned to the sea.

But if Helen was a modern-day Titan who had somehow been washed ashore as a child, how had she been able to survive on land?

"Why don't you give up, David? If she doesn't know what she is, how do *you* expect to find out?"

He laid the book aside and looked over to the couch where Barbara was lying on her side, watching him. "I suppose you're right."

"Of course I'm right." She sat up, swung her bare feet to the floor, and slipped them into slender sandals. She was wearing a white sunsuit that she had made herself. Her skin was dark from the sun—coffee-colored almost—and her hair—dark-brown once again—was as recalcitrant as ever. "I feel like walking."

"In the rain?"

"Is there somewhere else to walk?"

He was silent. She came over and stood by his chair and looked down into his eyes. "She's been

gone a long while this time, hasn't she?"

"Since yesterday morning."

"I wonder where she goes."

"God knows," David said.

"I think her mind is changing, too—don't you?"

"Why do you say that?"

"Because of the way she looks at us. So coldly. So clinically." Barbara shuddered. "It's almost as though she knows, and is trying to figure out what makes pygmies like us tick."

"She doesn't know," he said angrily. "She doesn't even suspect!"

"No, I suppose not. But she frightens me just the same. I don't think she's quite human any more. Those little slits she's developing on the sides of her neck; that strange luster her skin is taking on; the way she spends almost all her time in the sea . . ."

David stood up. "You said you felt like walking. Let's walk then."

She went over to the door and stepped out onto the thatched-roofed verandah. He got their raincoats and followed. The rain sound was louder here. "I don't want a raincoat," she said. "I get wetter with one on than I do with one off. Wear yours, if you like."

She descended the verandah steps and stood in the rain. After a moment's hesitation, he cast the raincoats aside and joined her. The rain was warm. It soaked into

his hair, penetrated his slacks and shirt. It ran down his face and neck. He tasted it on his lips. Some of the tautness he had known for days departed from him, and he felt almost carefree.

They crossed a small bridge that spanned one of the many brooks that wound down from the hills. The brook was a muddy torrent now, rushing pell-mell to the sea, and the once-green hills had drawn gray sheets of mist around their shoulders. Barbara rounded the Quonset hut and started across the embankment toward the beach, David just behind her. The paddies were riotous with rice gone wild, and in some places the lush growth was so high that he could have reached out and touched it. The fertility evoked by the rain was almost tangible.

Erosion had narrowed the once-wide walkway to a precarious path, and when they were halfway across Barbara lost her footing. David grabbed her to keep her from falling, and in the process lost his footing too. For a moment they clung together, fighting to regain their balance; then, the battle lost, they went tumbling down the steep slope into the knee-deep muddy water. Gasping, soaked to the skin, they struggled to their feet. Barbara began to laugh. Presently, he joined her. It was the first time he had laughed for months.

There was a smear of mud on her cheek. He wiped it off, left a larger one. Her hair clung in dark streaks to her face and neck, and her once-immaculate sunsuit was unrecognizable. "You look like a drowned rat," he told her.

"It's worth it to hear you laugh again. Besides which, you look like one yourself."

They scrambled and clawed their way back up the slope and arrived on the path muddier and more bedraggled than they had been before. "It's me for a dip," Barbara cried when they reached the beach, and running through the brief shallows, she plunged into the water, clothes and all.

David followed. The water was warmer than the rain. He surfaced so close to her that her wet hair clung to his face. He kissed her, and they clung together with all their might, the rain pouring down upon them and then the waters of the sea rising above them as their interlocked bodies pulled them down. She broke free from his arms then, and waded through the shallows to the shore and began running along the beach in the foreground of one of the coconut groves. At length, she plunged into the grove and disappeared.

Heart pounding, he stumbled after her. In the wet and dripping underbrush that grew between the neglected rows of palms he looked wildly around for her. He did not

see her, but she had left a trail. Her sandals first; then her sunsuit . . . her underthings last of all. She was waiting for him in a little clearing in the brush. The rain made pattering sounds on the palm fronds as they kissed. The wet grass seemed to reach up and drag them down, and the sound of their breathing submerged the sound of the rain.

A long while later, when her breathing seemed to cease, he raised his head and looked down into her face. She was staring straight upward, and her eyes were filled with terror. At first when he followed her gaze he saw nothing but the palm fronds that canopied their bower. Then he saw that the fronds had been parted and that someone was peering down through the opening. He saw the Brobdingnagian face then, and the enormous azure eyes. The sky seemed to lower; the thunder of the leitmotiv rolled awesomely in from the sea. And then the fronds fell back into place and the face disappeared.

Night had fallen by the time they got back to the hill. The Quonset hut was empty, and they knew that Helen had swum back out to sea.

This time, she did not return.

VII

The large and gigantic, though very compatible with the sublime,

is contrary to the beautiful. It is impossible to suppose a giant the object of love. When we let our imaginations loose in romance, the ideas we naturally annex to that size are those of tyranny, cruelty, injustice, and everything horrid and abominable. We paint the giant ravaging the country, plundering the innocent traveler, and afterwards gorged with his half-living flesh: such are Polyphemus, Cacus, and others, who make so great a figure in romance and heroic poems. The event we attend to with the greatest satisfaction is their defeat and death.

—Edmund Burke: *On the Sublime and Beautiful*

David looked down at his hands. The heat of the flames had dried them, and the glistening drops were gone.

He remembered the cup of coffee he had poured and left forgotten on the kitchen stove, and he forced himself to return to the memoried room. The coffee was cold now, but he didn't bother to pour another cupful. Instead, he carried the cup into the living room and set it on the mantle—and promptly forgot it again.

He looked through the living room window, saw Barbara standing on the cliff and gazing out to sea. Snow slanted down around her and the wind whipped her coat. Even in the cottage he could hear the crashing of the waves on

the little beach at the cliff's base.

Involuntarily, his eyes moved from Barbara to the small howitzer that crouched beside her. *And David chose him five smooth stones . . . and his sling was in his hand . . .*

He looked away from the window, looked down into the flames. He resumed his painstaking search of his soul.

Had he been right in contacting the Pacific Fleet when he learned that it was in the vicinity of *Bijou-de-mer*? Granted, the search that he had asked the admiral to make would have been made anyway, but the fact still remained that for the second time in the space of three days he had betrayed the woman he loved.

He had expected to have a hard time convincing the admiral that she even existed, but it turned out that the admiral already knew about her. He showed David a picture after summoning him on board the flagship and listening to his story. "Is this your wife, Mr. Stuart?" he asked.

David stared at the picture. It was a blow-up of a high-altitude aerial photograph and it showed Helen lying on *Bijou-de-mer*'s coral beach clad in one of the huge sunsuits Barbara had made for her. "Where—?" he began.

"Several days ago, one of our pilots took a number of high-altitude shots while he was on a practice mission. That's a blown up

version of one of them. At first when I looked at it and saw the woman lying on the beach, I didn't think too much about it. I simply took it for granted that the island was covered with kunai and that her dimensions were perfectly normal. Then I saw that what I'd instinctively taken for grass wasn't grass at all, but trees, and it dawned on me that I was looking at a photograph of a giant. I didn't want to believe it, but photographs like that don't lie, and I had to believe it. Now, you've told me that you think she's running away—although you haven't told me why you think so—and you've asked me to find her. Suppose I succeed—what then?"

"I'll see to it that she returns to *Bijou-de-mer*," David said. "And you'll see to it, I hope, that the whole thing gets as little publicity as possible."

"But what if she doesn't want to return to *Bijou-de-mer*?"

"I'll talk to her. I'm sure she'll understand that there's nothing else she can do."

"And after she returns?"

"Why, she'll go on living there for the rest of her life. Where else can she live? Where else can she find the privacy she has to have?"

"I'm afraid it's not quite that simple any more, Mr. Stuart. Even if I could guarantee you complete secrecy in the matter, which I can't, it wouldn't do you much good. The cat's already out of the

bag. Just this morning I received a report that the crew of a New Zealand freighter sighted a deep-sea monster which they described as a 'giant mermaid with legs'. You can be sure that the item will find its way into the newspapers and you can also be sure that there'll be other sightings—unless your wife returns to the unfréquented waters in the neighborhood of your island. But in the long run, even that may not help you. You may find yourself with more publicity on your hands than the creators of the Cardiff Giant ever dreamed of, in which case your island will provide your wife with about as much privacy as Grand Central Station."

"Then I'll just have to find somewhere else for her to live. The important thing now is to find her."

"If we do find her, you'll be notified immediately, of course. But since there's no precedent for this sort of thing, I can't advise you as to what will happen afterwards. But if she's your wife as you claim, you certainly ought to have a lot to say in the matter." The admiral leaned across his desk. "Mr. Stuart, if what you've told me is true, you've lived with this situation for a long time. Do you have any idea *how* your wife could have turned into a giant?"

David remembered his tentative theory about the Titans, but he didn't voice it because to have

done so would have been tantamount to admitting that he didn't think Helen was completely human. "No sir," he said, "I'm afraid I have no idea at all."

In the weeks and months that followed, Helen was sighted again and again, and the secret that David had gone to such lengths to keep came gradually into the public domain. The various specialists whom he and Helen had consulted were ferreted out by newsmen and interviewed again and again. One of them stated that Helen couldn't possibly have grown as large as the reports indicated for the simple reason that her bones would have been incapable of sustaining that much additional weight. Another of them said that it was ridiculous to suppose that her bones wouldn't have undergone compensatory changes. The poacher who had seen her swimming in the little lake stepped to the fore and told his version of the incident again and again, adding a little to it each time. His ghosted story, "I Saw the Sea Monster in a Lake" appeared in newspapers throughout the world, and he himself appeared on "I Know A Secret", "Truth To Tell", and, when it was discovered that he had an eidetic memory and could recite the novels of Harold Bell Wright word for word, on "Name Your Category".

Australia joined in the search. So did France, Holland, and Ja-

pan. Helen was sighted off Koli Point as she swam between the Florida Islands and Guadalcanal. She was sighted off the coast of Vella Lavella. She was sighted in the Bismark Archipelago. She was sighted between the Gilbert and Ellice Islands. But all of the sightings were unofficial, and by the time the various search forces arrived on the scene she was no longer in the vicinity.

Knowing how hopeless it would be to try to find her with nothing but a yacht at his disposal, David remained on the island with Barbara and followed the search on radio. At first there was no discernible pattern in the sightings, but at length one became apparent. Even after he spotted it, however, he didn't realize its implications until, several weeks after she had been sighted south of Tuamotu, she was seen in Drake Passage; and the real truth didn't dawn on him until he heard that she had been seen in the Strait of Magellan.

Hating *Bijou-de-mer* and all it stood for, she was heading for the only other home that was still accessible to her—the cottage on the Connecticut coast. And she was letting herself be sighted so that he would know. So that he would be there waiting for her when she swam in from the sea.

He would not disappoint her.

In September, he and Barbara left *Bijou-de-mer* and set their

course for Santa Cruz. Arriving there, they hired a crew, and then they began the voyage home. Again, David decided to go by way of Tacoma. There was no hurry, for it would take Helen till December at least to reach the cottage. Probably she wouldn't get there much before Christmas. The whole truth dawned on him then, and left him stricken. She wasn't making the fantastic journey just to meet him at the cottage—she was making it meet him there on their fourth wedding anniversary.

He began to hate the ground he walked on.

The *Nereid* reached Tacoma early in October. On the same day it docked, a news story that climaxed all previous accounts of the "sightings" appeared on the front page of every newspaper in the country. An American whaling ship had sighted Helen in the South Atlantic and dispatched a catcher to intercept her. She had attacked the catcher and overturned it—entirely without provocation according to the report—and when the factory ship had come to the rescue she had surfaced and disappeared from sight. But that wasn't the worst of it. Two of the catcher's crew were missing, and as yet no trace of them had been found.

What had happened was quite clear—if you believed what everyone was saying. "Goliatha" had

carried the two men into the deep with her and devoured them.

Yes, she had a giant's name now as well as a giant's reputation. And a thrilled and delighted audience. Never had a nation's morale been so high; never had neighbor felt kindlier toward neighbor. For now there was a common enemy whom all could hate to their hearts' content—a monster whose eventual "defeat and death" all could "attend to with the greatest satisfaction."

As for David, he was horrified. He was doubly horrified when he learned that Congress, anticipating Goliath's capture, was appropriating funds to build a special prison where she would be held for trial and a special court house where justice would be meted out to her. Once again society had been affronted, and once again society was out to exact an eye for an eye. And in this instance, revenge would be obtained whether the accused was convicted or not. The court house would take on the overtones of a zoo and the trial would destroy her as utterly as an atomic bomb would have. Society was a far more fearsome giant than the giant whose blood is thirsted for.

There was only one thing to do. Like all men, David had to kill the thing he loved.

He had not worn his scarlet cloak when he and Barbara trav-

eled incognito from Washington to Connecticut. He had not worn it when he secretly arranged for the purchase and the emplacement of the howitzer.

He did not wear it now.

Had the wind spoken his name? He listened. "Da . . . vid! Da . . . vid!"

He stepped over to the window and looked out. Barbara beckoned to him frantically, then turned and pointed out to sea.

The moment had come.

Numbly, he got into his shoes and his galoshes. Then he donned his mackinaw and plunged hatless into the wind-slanted snow. At the cliff's edge, he stopped and looked out to sea.

He saw the gulls first—great clouds of them circling in the lowering sky. Then he saw the dolphins leaping from the leaden waves. Finally, he saw the golden kelp-beds of her hair.

He dropped to his knees beside the howitzer. *This day hath the Lord delivered thee into mine hand . . .*

The leitmotiv sounded once again, grew in volume as she waded in from the sea. She seemed made of shining gold, and golden garments that matched her golden skin adorned her breasts and loins. A golden tiara crowned her golden head, and her golden hair fell down around her shoulders in glistening golden strands. She grew out of the water till she stood

lighthouse-tall in the morning—
fair as the moon, clear as the sun
. . . terrible as an army with
banners.

She halted a dozen yards from the cliff. A trident gleamed in one of her golden hands. Behind her, dolphins leaped. Above her circled the gulls. David looked upon her face. It was different now. It was frightening in a way. But her eyes still held the blueness of a September sky and her mouth still knew the softness of a summer night.

Her voice, too, was as gentle as he remembered it. "You needn't worry about me any more, David—I've found my own kind."

His sling and stones forgotten, he straightened to his feet. "Then the Titans *did* return to the sea!"

"It may have been the Titans. It all happened so long ago that we aren't sure who our ancestors were ourselves. But we know that originally they lived on land. When the waters began to rise—probably during one of the glacial retreats—they must have thought that everything would be submerged. Anyway, they adapted themselves to live beneath the sea, and once they'd done so, they couldn't re-adapt themselves to live above it."

"Then how were you able to live on land?"

"I'm an atavism—a throwback to the days when my ancestors were still in the process of adjust-

ing themselves to their new way of life. It took them centuries, and at first heredity didn't function. Children had to be brought up on land and allowed to adapt themselves gradually. Only when they reached adulthood were they ready to live beneath the sea. Just as I'm ready now. I would have died the same day I was born if my parents hadn't put me on land. They wrapped me in seaweed and held me above the surface of the sea, and as soon as they could do so without being seen they swam into shore and left me where someone would be sure to find me. After that, all they could do was hope that I'd survive till I reached maturity. I was less than a day old when my foster father found me. Just a baby. We're different from land people. We reach puberty two years after we're born, adolescence four years later, and adulthood eight years later. And the older we become, the faster we grow. I'm the first atavism to crop up in thousands of years, but there used to be lots of them. That's why your folklore is so full of giants."

David looked out over the gray-snow-pocked wastes that spread beyond her golden shoulders. He shivered. "But the cold," he said. "The darkness and the terrible pressure. How can you possibly live at the bottom of the sea?"

"We don't live at the bottom. We live on the tops of guyots and

on continental shelves, and in caverns in the walls of the submarine canyons that cut back in from the continental slopes. And it's not so different from living on land as you might think. We have underwater farms where we raise some kinds of algae for food, and underwater factories where we process other kinds and make clothes out of it. Most of us live in small communities, but on some of the larger guyots there are regular cities. It's a good life, and a safe one. We have two hereditary enemies—the white shark and the tiger whale—but they're no match for us when we're armed, especially today. Our ancestors used to make their tridents out of wooden masts or ribs, and sometimes they broke; but we have much better materials to choose from, and ours never break."

David looked deep into the giant blue eyes. "Did you attack the whaling crew?" he asked.

"Only because I had to, David. They were trying to harpoon me, and they would have killed me if I hadn't upset their boat. When I dived afterwards, two of them were caught in the suction and pulled down. I've felt terrible about it ever since."

She reached into a golden pouch that hung at her side, withdrew a tiny object, and laid it at Barbara's feet. Barbara picked it up. It was Helen's wedding ring. "I was hurt at first,"

Helen said, "and I wanted to get as far away from *Bijou-de-mer* as I could. But after a while I got over it, and I saw that it was only natural that the two of you should have fallen in love. So I came here, hoping you'd guess where I was going and come to meet me." She looked at Barbara. "Good by, little sister," she said. The enormous azure eyes came softly to rest on David's face. "Good by, sweet gentle David."

She turned, and the gulls circled higher. The dolphins leaped above the waves. The waters rose around her as she waded into the sea.

"Don't go yet," David called. "Don't go yet—please!"

She did not pause. The waters rose higher, swirled around her waist. He no longer loved her—he knew that now. Not in the way he had loved her before. But he loved her in a different—perhaps a nobler—way, and seeing her walk all alone into the vast and lonely wastes of the sea was more than he could bear. So he called again: "Don't go yet! Don't go yet—please!"

She turned then, and looked back at him. She smiled, and shook her head. There was sadness in the smile, but there was happiness, too. A strange, secret happiness . . . As he watched, the waters near her swirled and eddied; then they parted, and a great golden head appeared. Gold-

en shoals of shoulders, cyclopean arms . . . In a great surge of foam, her new mate rose out of the sea beside her, and she turned and looked up into his great blue eyes. His love for her and her love for him shone through the slanting snow. Together, they began swimming out to sea.

The dolphins leaped, the gulls wheeled. The wind doubled its strength and the snow came down in wild and furious whiteness. Just before they dived they rose high out of the waves, and a single ray of sunlight stabbed down through a sudden chasm in the clouds and burnished their gleaming bodies into blinding brightness; and then the ray was gone and the brightness was no more,

and nothing broke the surface of the sea except the leaping dolphins and the pock-marks of the falling snow.

Tears were running down Barbara's cheeks. David put his arm around her shoulders. "It's all right now," he said. "Finally she's free."

He looked out over the vastness, over the sweep of wave and trough. He remembered the canvas she had painted in the heyday of their love—the eerie palace and the slender towers, the strange rays and the filmy phosphorescences and the piscine birds. It was like a line of Shelley's almost. "In what cavern of the deep," he whispered, "will thy pinions close now?"

Marque and Reprisal • Arsenal Port • Admiralty

three short novels by POUL ANDERSON

coming soon

THE MAGAZINE OF

Fantasy and Science Fiction



BOOKS—MAGAZINES

Why buy books? Send 10¢ for information & catalog to: Science Fiction Circulating Library, P. O. Box 1308, So. San Gabriel, California.

"Off-The-Beaten-Path"—\$2.00. R. Therrien, 2550 W. 130th Ave., San Leandro, Calif.

THOUSANDS OF PAPERBACKS you haven't read: 36/\$1.00, bargain exchange. Free details. Bruce Clark, FS, 115 McGavock Pike, Nashville, Tenn. 37214.

BOOKSEARCH SERVICE. Prompt, reliable. Ruth Gilcreast, 3815 Market Street, San Francisco, California 94131.

25,000 magazines for sale. Thousands wanted in excellent condition; science fiction, weird, horror, spicy, western, adventure, others. Send list, enclosing stamp. Magazine Center, Box 214, Little Rock, Ark.

POCKETBOOKS—Eight—\$1.00. Specify: Mysteries, Westerns, General Fiction. Dale Gowin, Route One, New Milford, Connecticut.

Science fiction Magazines—1930's, Astounding, Amazing, Wander. Stamp for list. Carl Coats, Waverly, N. Y.

Need any SF or Fantasy magazines? Selling my collection. Send want list. Donn P. Brazier, 1435 Pawanvalley Drive, St. Louis 31, Missouri.

622 SF magazines, best offer. Laumer, 932 Morningside, San Antonio, Texas.

EDUCATIONAL

LOVE, WORK AND KNOWLEDGE—their definition is the goal of our school and summer camp. Coeducational. Four to Eighteen. SUMMERLANE, Mileses 5, New York.

MARKET PLACE

GENIUS MENTAL POWER. Recent discoveries prove genius comes from a mental trick that you can learn—a trick that helps you actually invent new ways to think. Some students raise I.Q. type abilities 20, 45, or even 70 points. Exclusive, copyrighted, 3500-word report by science editor, university lecturer. \$5.00. Psychodynamic Research Council, Dept. C-12, Box 661, Bloomfield, New Jersey.

PATENTS AND INVENTIONS

PATENT SEARCHER, \$6.00! Free "Invention Record". Information. Miss Hayward, 1029Z Vermont, Washington 5, D. C.

INVENTIONS wanted. Patented, unpatented. Extensive manufacturers lists. Search service. Applications prepared. Financial assistance available. For free details write New York Invention Service, 141 Broadway, Room 817, New York 6, New York.

HYPNOTISM

Free Illustrated, Hypnotism Catalogue. Write Powers, 8721 Sunset, Hollywood 69, California.

LEARN WHILE ASLEEP. Hypnotize with your recorder, phonograph. Astonishing details, sensational catalog free. Sleep-learning Research Association, Box 24-F5, Olympia, Washington.

PERSONAL

Willi F. Jacks please write. Rosalinda, 138 Marker Ave., Camarillo, California.

WANTED TO BUY

Weird Tales magazines 1923 through 1933. Write W. Ess, Box 553, St. Louis, Mo. 63188.

Do you have something to advertise to sf readers? Books, magazines, typewriters, telescopes, computers, space-drives, or misc. Use the F&SF Market Place at these low, low rates: \$2.50 for a minimum of ten (10) words, plus 25¢ for each additional word. Send copy and remittance to: Adv. Dept., Fantasy and Science Fiction, 347 East 53 Street, New York 22, N. Y.

SERVICES—AUTHORS

PUBLISH your book! Join our successful authors publicity advertising promotion, beautiful books. All subjects invited. Send for free appraisal and detailed booklet. Carlton Press, (Dept. FSJ), 84 Fifth Avenue, N.Y.C. 11.

STAMPS

FIFTEEN PLEASANT OFFERS plus valuable tips on stamps. Write Bileski, Station B, Winnipeg, Canada.

MISCELLANEOUS

FOLK guitars, banjos, catalogue 25¢, Main, 4139 Main, Skokie, Ill. Dept. FS.

BEERS, PEACH BRANDY, WINES—Strongest Formulas, \$2.00. (Complete Brew Supplies, Hydrometers, Fruit Presses). Research Enterprises, 29-MOB Somerset Road, Woburn, Mass.

FOREIGN EDITIONS of Fantasy & Science Fiction Limited offer—Send \$1. for any 3 foreign edition copies of F&SF (usually 50¢ each)—French, German, Italian, Japanese, Spanish, or British Venture SF. Mercury Press, Box 271, Rockville Centre, N.Y. 11571.

FULL COLOR COVERS of Fantasy and Science Fiction without overprinting—suitable for framing: 75¢ for one; \$2.00 for three; \$3.00 for six; \$15.00 for thirty-three. Our selection. Send order and remittance to: Mercury Press, Inc., Box 271, Rockville Centre, N.Y. 11571.



YOUR MARKET PLACE

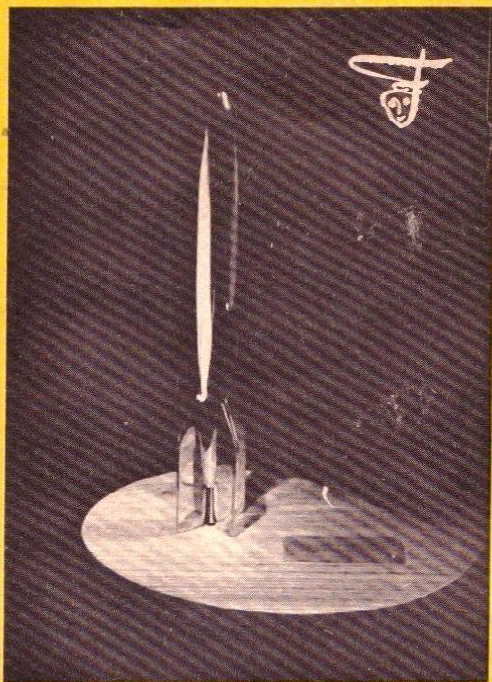
A market is people—alert, intelligent, active people.

Here you can reach 156,000 people (averaging three readers per copy—52,000 paid circulation). Many of them are enthusiastic hobbyists—collecting books, magazines, stamps, coins, model rockets, etc.—actively interested in photography, music, astronomy, painting, sculpture, electronics.

If you have a product or service of merit, tell them about it. The price is right: \$2.50 for a minimum of ten (10) words, plus 25¢ for each additional word.

Advertising Dept., Fantasy & Science Fiction

347 East 53 St., New York, N. Y. 10022



"... The Magazine of FANTASY AND SCIENCE FICTION consistently publishes more stories of high quality than any other science fiction magazine in the world."

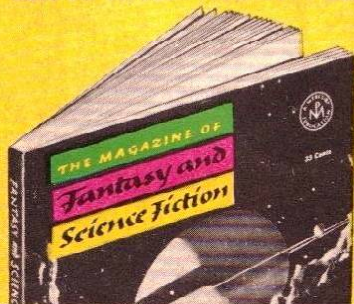
NEW YORK TIMES Book Review

40c

at better newsstands every month

By subscription \$4.50 a year

347 East 53 Street New York 22, N. Y.



Chesley Bonestell