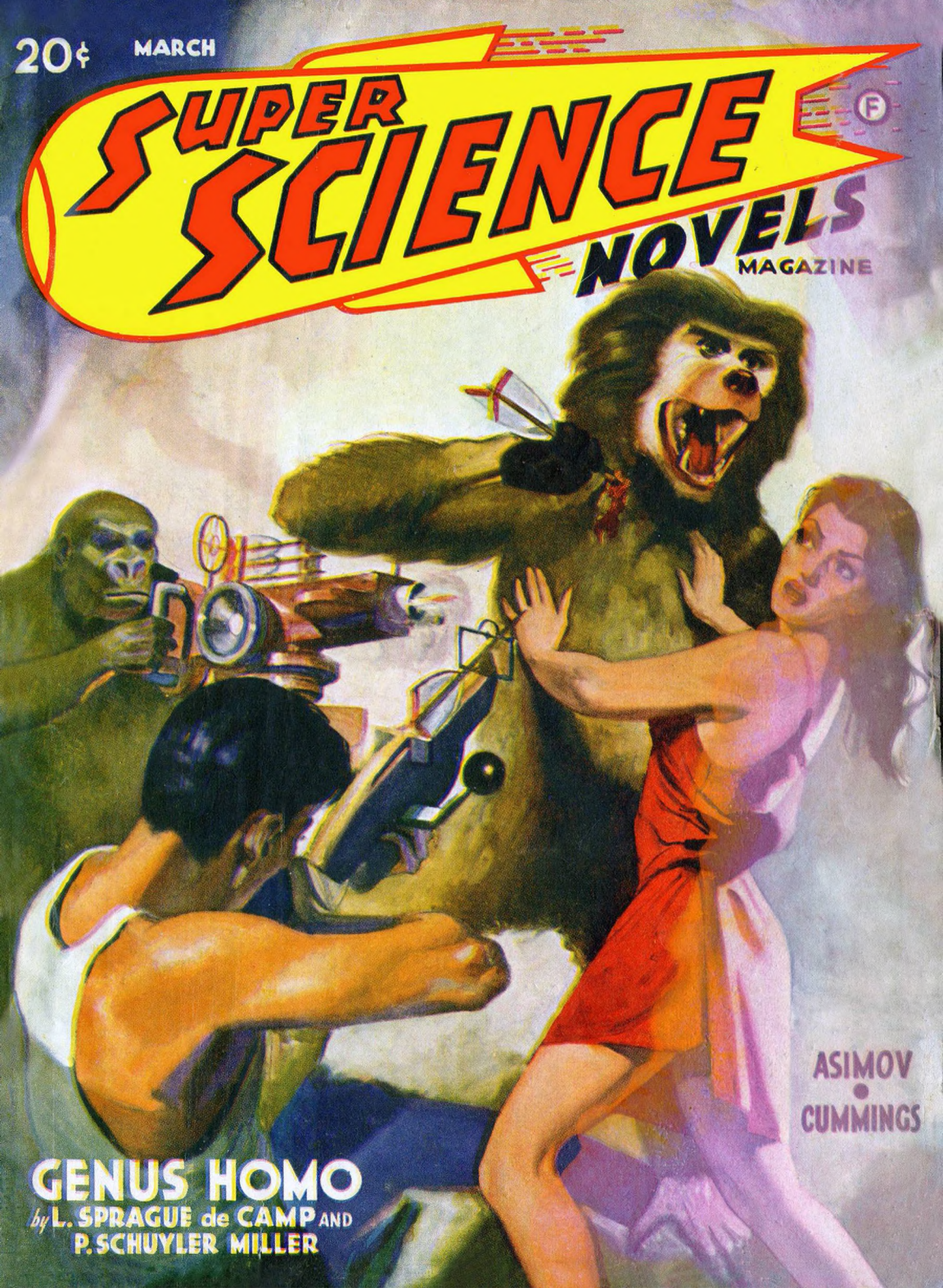
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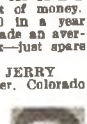

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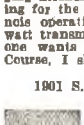

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SUPER SCIENCE NOVELS MAGAZINE

VOL. 2 MARCH, 1941 NO. 3

BOOK-LENGTH NOVEL

SHORT NOVEL

SHORT STORIES

ARTICLE

SPECIAL FEATURES

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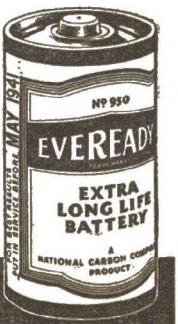

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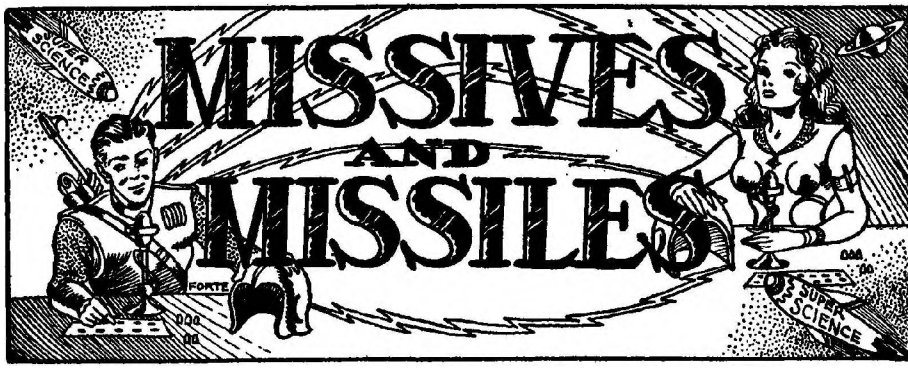

Comparison

Dear Editor:

This is to be a report on the November and January issues of *Super Science Stories;* the contrast is so great between the two that I could not resist commenting on both in one letter. Because the November issue was as bad as the other was good, I will be brief:

Only two tales were really worthy of attention: Gottesman's "Nova Midplane" and, No. 2, "The Monster on the Border." Both were well illustrated. The former author is the best to be found in your pages, and I eagerly look forward to a constant stream of my favorite's work. His sequel, though, did not come up to "Before the Universe." Third, we have "Cepheid Planet" with fine pix and a fair cover, but a not-so-good story. I expect better work from Winterbotham. "Asokore Power" was fourth and extremely dull; all the facts seemed oddly unrelated and I don't think even the most enthusiastic de Camp fan should blindly accept this dud. Its illustrations—along with the rest of the Thorp drawings in the *November* number—were very bad. I know I should have liked "The Horizontals," but something went amiss some place. Sixth is the whacky "Dimension-Hazard" with a swell Bok adornment; next is the clever SS-Brief—one of the best so far—and it has a *magnificent* picture by newcomer Angus Dun, an artist that is the best of the recent new ones flooding the field. Oddly enough, he seems to know scientifiction art!

A no-cheers issue.

The January has a poorish cover, awful Morey Pix, a starved letter department, and a wonderful announcement—and good yarns. The new *Novels* sounds thrilling, and your facts about book-lengths were interesting and true. The meager increase in price is hardly noticeable and portends a future of better effort on the part of the publishers. Now, how about trimmed edges, smaller type in letter department, and better, full-paged, framed illustrations?

I have read that Leo Morey is financially independent, so perhaps he can choose to let his work suffer. All I know is that illustrations like his in the latest issue were responsible for his absence from science fiction pages for three years. And although he is one of my favorites, I had rather see none of his work than bad work.

On the other hand, Bok, Giunta, and Thorp were perfection.

"Beings Like These" was a catchy novelette with a very interesting scientific theory to bolster its action. This author has pleased twice with only two yarns to his credit. The pix were fair and not up to the Wexler standard.

"Vacant World" is somewhat emburdened with plot-sterility, but the connected threads and situations and the vivid characterization made this the easy No. 2. A

(Continued on page 6)

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Give me just this and I'll prove I can make you A NEW MAN!

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MISSIVES AND MISSILES

(Continued from page 4)

hearty congratulation to Giunta, but a word of caution,—discard the swirling capes and the Flash Gordon helmets and riding pants. You're not drawing for the comic books.

Saari's "Under the Sand-Seas" is third, and not too original; too many complications. "Water Pirate" is next, exquisitely illustrated by Bok. The mysterious character was intriguing and pathetic, but the scientific puzzle was just that—puzzling.

"Buckethead" was good fun and another hit on the list of the rejuvenated Stangland. Following in sixth place was a new Rocklynne, and a poor one. "Collision Course" was meant to be a character study, I guess, but it was merely a flop to me. I dislike the present popular sport of gilding piratical-minded specimens with gold hearts. The greatest argument in favor of my anti-double-spread drawings campaign was the weird effect of the jumbled first illustration in the book.

Keep up the good work, and all the luck you can get on your new venture!—Charles Hidley, 2541 Aqueduct Avenue, New York City.

Man Gets Wish

Editor, Super Science Stories:

Nothing personal, you understand, but this last sickening issue of what might have been a good magazine leads one to wish, fervently, that *Super Science Stories* goes down the drain, definitely and permanently.

There has been, I will admit, an occasional dim flickering of light and literacy. Such as Monroe's "Let There Be Light", some of Bok's drawings, and Sherry's covers. And *The Science Fictioneer*—well, is, at least. Which is more than can be said for so-called stf club department-pages elsewhere. But not much more; not much.

Someone ought to bring out a magazine of Gottesman tales. The worst would make the general run of SSS shrivel in comparison, and the best would make the competitors shake in their shoes. Why not see the error of your ways and give brilliant young newcomers like Gottesman, Basil Wells, Wollheim, etc., more of a chance to show what they really can do?—Robert W. Lowndes, 129 West 103rd Street, New York City.

West Haven Fans Wanted!

Dear Pohl:

Enclosed is my application for membership in *The Science Fictioneers*. Now that I've finally ceased my roaming, and returned to take up my life here at home, I intend to take an active part in science-fiction. The torch has, of course, been carried pretty well by my sister and brother, but now another Kuslan—and one pretty unknown I guess—is here to do as much as possible to make life miserable for the editors.

First the cover—a veritable mess, I assure you. Because of it, I hesitated to read the story. Rocklynne's not bad, though, in spite of his habit of employing hackneyed adjectives. His heroine would be quite useful in everyday life, too, since, with her dazzling smile, she could serve to light the streets on dark nights.

Of the stories I read, I liked "Buckethead" about the best. Amusing, light, and easy to read. Some of the stuff you print is much too heavy and melodramatic for my tastes. But then, you're doing your best, I suppose. And your fan atmosphere is to be commended.

Probably we shall form a branch of *The Science Fictioneers* if a few more fans can be found in this territory. I wish that any persons reading science-fiction, in this vicinity, would get in touch with myself or my sister Gertrude. Surely, we would be able to accomplish something.—George W. Kuslan, 170 Washington Avenue, West Haven, Connecticut.

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GENUS HOMO

By L. SPRAGUE DE CAMP and P. SCHUYLER MILLER

CHAPTER ONE

Awakening

HENLEY BRIDGER woke up.

Stones were crashing on a sheet-steel drum, six inches from his ear. After a while they dwindled to a crackling rivulet of fine gravel, and then silence.

The lean chemist lay with his eyes closed. His

brain felt muzzy and clogged, and there was a musty odor in his nostrils that shouldn't be there. He was on his back, with his right arm buckled under him. Something soft and heavy was sprawled against his thighs. Bridger opened his eyes.

It was dark, but not so dark as he remembered. He was lying in the groove between a curving metal wall and a ribbed steel grating whose pattern was deeply imprinted on his back. He dragged at the arm under him, but it refused to move. Then he tried to sit up.

A stab of pain made him grunt, and a wave of dizziness slumped him back hard against the wall. As it died away he lifted himself carefully on his good elbow, and pulled his right arm out from under him. He bent it experimentally and twiddled its numb fingers, wincing at the fiery ache of returning circulation. Then he hitched himself higher against the cold steel wall and poked at the thing across his legs.

It squealed, and dropped with a thud into the darkness below. It lay there whimpering like a lost pup, its sniffles broken by the rattle of gravel overhead. Bridger hauled his legs up and hugged his shins. He felt light-headed as the devil, but little bits of memory began to arrange themselves in order in his mind. He had been in a bus with a lot of other people, and the bus was in a tunnel. There had been an earthquake, or a landslide, or something. The bus had gone wild and climbed the tunnel wall. And then there had been a smell—a damned queer smell—like nothing he knew about. And he thought he knew smells.

One thing more: "it"—the thing that had squealed—must be the fat, pink blonde from the seat ahead.

By now his body felt more or less nor-

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mal, but his face itched abominably. He reached up to scratch, and involuntarily jerked his hand away. He had a beard—a vast, muzhik-style beard that rippled down his vest for a good six inches. He wagged his head, and his hair swung down over his eyes in a long, ragged fringe like the mane of some Magyar poet. He felt the back of his neck, and visions of Buffalo Bill popped into his mind. Whatever had happened hadn't added to his social appeal.

HE GAVE it up and peered into the surrounding darkness. Those grey patches should be the windows of the bus.

"Hey!" he called.

The blonde's voice quavered, "Who—who's there?"

"Are you all right?"

"I—guess so." Then: "My hair's long!"

"Um. Anybody with you?"

"Oh!" Silence again, then another squeal and a tragic stage-whisper: "There's a leg! A m-man!"

Bridger grunted. "Look out; I'm coming down." He swung his legs over the edge of the steeply-canted luggage-rack, felt for a foothold on a seat-back, and lowered himself stiffly to the floor. He came down on the blonde's plump leg and she jerked it from under him. He grabbed at the darkness and brushed a soft, bare cheek. Another woman! He found her wrist, and felt a feeble, fluttering pulse.

"Come here," he commanded. "Look after this woman. Wait—where's this leg you found?"

Bridger didn't like the way the blonde giggled when they had to crawl over one another to exchange places. He turned his back on her, and found the man slumped down in his seat with a suitcase on top of him. Both hands were clasped tightly over the valve of a small compressed-gas cylinder. Their fingers were cold and rigid. The man was dead.

Something stirred toward the front of the bus. "Hello!" Bridger called. "Who's there?"

A high-pitched man's voice answered. Pilly—the ichthyologist. "Is that you, Bridger? What's happened?"

"I don't know; some accident." The chemist began to work his way forward along the slanting floor, hanging to the luggage rack. Twice he stumbled over bodies; one moved. Bridger didn't stop. One thing at a time was all he could manage now.

The little ichthyologist was crouched in his seat, too terrified to move. Scherer, the mammalogist, was huddled against him. Scherer was alive; at least, his heart was beating as strongly as it ever had. Bridger tried the door of the bus.

"Jammed," he said over his shoulder. "Here, help me get some of these windows open."

The air in the bus had an unpleasant metallic tang that Bridger couldn't place. The first window opened with a protesting groan, but the rest wouldn't budge. Bridger started back up the aisle. The man he had stumbled over was sitting up, holding his head in his hands. He had been sick—unpleasantly so. The two women were huddled together on the floor, holding each other's hands and tittering hysterically. Bridger heaved hard and got up another window. "Pilly!" he called. "Slide outside and give me a hand with these people. We've got to get 'em out of here."

It was all very awkward and not at all chivalrous. The damned women were all legs and loose garments that slipped and ripped when he tried to get hold of them. The blonde stuck fast, and Bridger had to haul her back and strip off her fur coat before he could get her through. Aroused by her indignant yells, the second man came stumbling through the darkness, and with Bridger's aid began to explore the bus.

THERE were people everywhere, mostly women of all conceivable shapes and sizes. They had to be untangled from themselves and from each other, and rubbed, slapped, and shaken into some semblance of consciousness. At last they were done: Bridger dragged the last limp form down the aisle and hoisted it through the nearest open window. He followed, head first, his helper behind him.

Light filtered through a ragged hole in the tunnel roof, ten feet above. Bridger counted noses. Twenty-four—twenty-five with himself. Pilly he knew, and Scherer, and one or two others. Like him, they had been bound for the A.A.A.S. meeting in Pittsburgh. All the men were bearded like Biblical patriarchs, and the women had tangled hair down to their waists. What a sweet looking crew, he thought. Dirty faces and fingernails like claws—The scrawny Ichabod with the orange halo was Abner Barnes, the Chicago archeologist. He had been sitting with the corpse. Bridger beckoned.

"Barnes," he said, "who was that man with you? He's dead. Do you know what was in that cylinder?"

The archeologist shook his head. His voice had a sharp New England twang. "That's Blodgett; you know—the British biologist. Came over to Johns Hopkins this fall. I met him at Ann A'bor—he was up there consulting with Bloomquist—and he hung onto that cylinder like the Nobel Prize. Something he was going to spring on us at Pittsburgh."

"What do you remember?" asked Bridger. "About what happened, I mean."

"Nahthing. I was asleep. The bus jumped like a skittish mare and there was that deuced queer smell. D'you think that was Blodgett's gas? Some new anesthetic?"

"I don't know. Professor McCandless was on the committee that scheduled the papers, and he showed me an advance program. I think Blodgett's was something like 'A New Theory of the Vital Processes', but that's all I know." He turned back to the crowd. "Let's forget him for a while and do something about getting out of this hole. Who drove the bus?"

"I'm him." A bulky man in chauffeur's uniform edged forward. "Toomey's the name."

The chemist put out his hand. "I'm Bridger; Henley Bridger. This is Professor Barnes. What can you tell us about what happened?"

The driver scratched his head. "We-ell—it's pretty hard to say. This tunnel we're in's on the new road between Wheeling and Pittsburgh. There's never been no one could figure why it was dug, but I guess someone got his share of the gravy. Anyway, all I remember is a kind of swingin' feeling, like rockin' in a hammock, sorta. It yanked the wheel outa my hands, an' we sideswiped that old Chevvy over there. Then there was a funny smell, and that's about all I can remember."

"What Chevvy?" demanded Bridger. He peered into the darkness.

"I dunno," growled Toomey. "The damn fool was way over on my side. We socked his rear end."

FOLLOWED by the others, Bridger strode to the rear of the bus. The Chevrolet was half buried in the rubble that blocked the end of the tunnel, its top crushed under a great arched slab of concrete shaken from the tunnel roof. Bridger squeezed into the space between the car and the wall and tugged at the door handle. It stuck. "You try," he said to Toomey.

The driver grunted and heaved, and the door scraped open with a tinkle of broken glass. Bridger reached in and pulled out a small, fat man from behind the wheel. The man stirred.

"Ai!" he moaned. "Ai! Momma!"

There was an answering wail from the

back of the car. Bridger swore under his breath. He crawled out of the hole, pulling the man after him. The crowd gave way a little and stood gaping at them. Bridger spotted a brawny youth with a scallop of blond fuzz under his chin. "You!" he barked. "Get this man out of here and see if he's hurt."

The youngster picked the fat man up as if he were a bag of meal and shambled off toward the light. Bridger beckoned to Barnes and Scherer. "There's a woman in there," he explained. "Barnes, you're long and thin; see if you can get at her."

The archeologist disappeared feet-first into the blackness. They heard him moving about; then there was a sudden scramble of feet, a thud, and Barnes yelled in fury. Something small and fierce burst screaming from the hole and rammed Bridger amidships. Scherer grabbed it and hung on with both hands despite an onslaught of fists and teeth. Its cries became intelligible.

"Momma! Poppa! Mom-*ma!*"

Barnes' muffled voice sounded out of the darkness. "Strangle that kid, and give me a hand with this woman. She weighs enough to sink a battleship. Consa'n the consa'ned . . ."

Bridger crawled into the hole. Getting the blonde through the window had been a picnic compared with this. Tugging at a fat ankle, Bridger wondered if Toomey hadn't a jack in his bus that they could use.

When at last they got the woman out and laid her on a pile of coats, Scherer took charge. "I know the rudiments," he said. "You have to on collecting trips."

The little fat man came forward, leaning on the blond youth's arm. The child stalked truculently behind them. The man peered eagerly into their faces.

"Which is the doctor? You? You are sure she isn't hoit bad? She is so delicate, my Rachael! Ai—what have I done that this should happen to me?" He began to rock from side to side. Bridger took his arm.

"Listen," he said gently, "your wife isn't badly hurt. Dr. Scherer is only a Doctor of Science, but he can tell that much. We must get out of this tunnel, so we can get a real doctor for her. Now then, what's your name?"

The little Jew looked up at him pleadingly. "You are sure? It isn't bad? You will bring a real doctor soon?" He fumbled in his vest pocket, bringing out a crumpled card. "Take it, please. Julian Aaronson, ladies' and gents' fine clothing. The address is on the card." His arm went lovingly around the child's shoulders. "This is my son, Oiving. He will be like his papa, a couturier of distinction!"

Bridger looked doubtfully at the boy, who seemed to have inherited his parents' imposing girth as well as their cast of features. Oiving glared back with pop-eyed insolence.

The chemist ignored him and spoke to the crowd. "We'd better concentrate on getting out of here and locating the nearest town. Where were we when we cracked up?"

"We oughta be a coupla miles from West Alexander," Toomey volunteered. "There's a gas station down the road a ways where you can phone."

"Good. If you ladies will sort out the baggage and collect whatever you want to take with you, the men will try to find a way of getting out. Toomey, will you get whatever ropes and chains you have?" He clambered to the roof of the bus. There was still a good six feet between him and the edge of the hole. He beckoned to the blond youth. "You look husky. Can you give me a leg up?"

"Maybe we better make a pyramid." The young man pointed to Pilly, whose whitish hair showed up in the gloom like a sunflower in a coal-shuttle. "He's small —he could be on top."

"This is no gym-show!" Bridger snapped. He was growing impatient. "If you won't do it, let someone else up here."

HE CAME, grumbling, but the rest was not so easy as Bridger had expected. Twice he lost his footing and came down with a crash. On the third try he went up with a rush and caught a gnarled root that stretched across the hole. Sand and gravel showered in his face. When it stopped, he opened his eyes and chinned himself on the root, wriggled slowly upward until he could heave his body across, got one knee on it, and shoved hard. He felt his coat tear, and then he was lying half in and half out of the pit, in the open air.

Someone yelled at him from below, but Bridger wasn't thinking of people at the moment. Clean, fresh air was tingling in his nostrils and golden sunshine slanted down through the branches of a great tree. Lush green grasses waved above him. He rolled over and lay for a time staring at the long streamers of cirrus clouds before he got wearily to his knees and peered into the hole. His eyes had become adapted to the daylight, and he could see only a vague blur of upturned faces.

"Throw me a rope!" he shouted. "And send up something to dig with. That hole was too damn narrow for comfort!"

He caught the end on the twentieth try, and hauled up thirty feet of oily hemp. A short-handled shovel and a Boy Scout size hatchet were tied to the other end: somebody was using his head down there! Bridger set to work enlarging the hole to dimensions that might accommodate the blonde or Mamma and Pappa Aaronson. "Toomey," he yelled.

"Huh? Me?" answered the darkness.

"Yes. Got any chains? If you can fasten the ends together we can use 'em for a ladder."

Silence. Then: "Nope, we ain't got no chains."

"Okay, then—they'll have to shinny. I'll tie the end of the rope around this tree, here. How many of you can climb?"

Silence again, then the voice of the young Hercules: "Got her tied? I'm coming up." And up he came, hand over hand, the rope creaking alarmingly under his weight. Bridger grabbed his hand as it came poking out of the hole and heaved him out.

"Good stuff!" he approved. "I'm putting you in charge of getting the others out. What's your name?"

"Zbradovski. Vladimir Zbradovski.

Senior at Chicago U. Look—aren't you the Stanford University Bridger, the enzyme guy?"

"Yep. D'you play football?"

"Sure, but you don't read about me in the papers. Us poor linemen don't get the publicity like we should. Hey, look—here comes another one!"

As he spoke a ham-like hand appeared at the edge of the hole, followed by the head and shoulders of a man. They hauled him out; no easy task, for his body was as big as Zbradovski's. He sat with his back against the tree, puffing and red-faced.

"Name's Macdonald," he announced. "I'm a cop in Pittsburgh. Been on vacation. The next guy coming up is Franchot—'Ronnie' Franchot. He's a hoofer —seen him in Louisville last week. Half them dames down there is his—chorines in his act, I mean. He does taps and adagio stuff. It stinks."

Bridger bent over the hole again. Scherer's face stared up at him. "Everything all right down there?" The face bobbed in affirmation. "I'm going up on the hill to see what I can see. Get the women out, and see if anyone knows this country we're supposed to be in. From here it looks like a howling wilderness."

CHAPTER TWO

Wilderness

NOR did it look any better from the hilltop above the tunnel. Rolling, wooded hills stretched as far as he could see. Evergreens predominated, mostly pine, with here and there a dark patch of spruce. There was no sign of the road they had been on—nowhere the open farmland along the roadside, with its gas stations and hot-dog stands—nowhere the smoke of a train or the smudge of a city. As far as Bridger could tell, they might have been scooped up by some Djinn out of the "Arabian Nights" and dropped into the middle of a virgin timberland like that which the first settlers of Pennsylvania had found —"Penn's Woods," and with a vengeance!

He turned back. A dozen or more women were standing around the hole or sitting in the long grass. Toomey was hauling up bundles from below. Apparently most of the men were still in the tunnel.

"Where do you think we are?" asked Zbradovski.

"I don't know. Do any of you know this country at all?"

Toomey straightened up. "I ought to," he complained. "I been drivin' this route for three years now. But I don't. Never seen it and never heard tell of it. Ask Mac there—" He jerked his thumb toward the policeman. "Ask Morelli. Ask any of 'em. We're nowhere—that's where we are—and damned if I know how we got there!"

Bridger surveyed the circle of drawn, dirty faces. He wondered if he looked as bedraggled as that. "Is that right?" he demanded.

The man called Morelli answered. He was dark, with a business man's paunch. The pouches under his eyes gave him a slightly sinister look. Bridger wondered how he happened to be wearing o. d. breeches and high laced boots. "I sold insurance through these parts, ten, twelve, years ago," he said. "This isn't Washington County or anything within fifty miles of it. You gotta be a damn sight smarter'n I think you are if you're gonna get these dames to town in time for dinner."

"Hey!" came Barnes' voice from the tunnel, "Lower away! We're coming up. Oh, da'n it, I forgot Blodgett's brief-case. You two go ahead; I'll be right with you."

ONE by one the men were hauled from the hole. First came Scherer's big frame; then a graying fellow with even more paunch than Morelli. Like the insurance peddler he was wearing outdoor clothes. He wrung Bridger's hand. "I'm Packard—Nelson Packard, attorney," he announced sonorously. "Mr. Morelli and I were going on a fishing trip." (Fishing in December? thought Bridger. Those two must love the sport, for all their stomachs!) The other went on smoothly: "You certainly know how to get things organized, Dr. Bridger; count on me for any help I can give — say, where are we?"

Bridger grinned. "That's the first question everybody's asked, but nobody's answered it yet. What do you think?"

Barnes, brushing dirt from his clothes, broke in: "Better move all this stuff away from the hole; there may be another cave-in. You need a rest, Bridger; you look all in."

"Oh, I'm all right," the harassed chemist assured him. "No, Miss—What's your name? Smythe? There isn't any water around here. I'm thirsty too—I guess we all are. Try putting a pebble in your mouth. Hey Scherer, what's wrong with that fellow under the tree?"

"He's drunk!" the zoologist grunted. "Boiled as an owl. More power to him, with this hullaballoo going on!"

"Pipe down a minute!" Bridger shouted. Then as the babble of voices quieted: "Everybody lend a hand with the baggage, and then we'll decide what to do. Now, will you give Professor Scherer a hand with that drunk?"

When the moving had been completed, he faced the crowd thoughtfully. "There's no point in trying to fool anybody," he began. "You can feel and see the same things I can. We've been asleep a long time. Probably we have Professor Blodgett's gas to thank that we're alive at all. Things have changed, or we've been moved, and it may take some time to find people. If we stick together and use our heads we can manage it, but if we don't we'll be in a hell of a mess in no time.

"Now, first of all, there's Professor Blodgett. He's dead, and his body's still in the bus. Now we *can* get it out and lug it along until we find an undertaker, but you can guess what a picnic that would be. So, unless somebody objects pretty strongly, I'm for leaving it where it is.

"We have several hours left before dark, but before we start off I'd suggest that we let one or two of the men scout around for a road. There'll be plenty for the rest of us to do. For one thing, all those high heels will have to be cut down if we're going to hike very far. Also, has anyone anything to eat?"

"Please!" It was Aaronson. "Momma and me and Oiving was going on a picnic when the bus hit us. There's sandwiches in the box, and coffee, and maybe some other things. Momma knows about it. Only"—he hesitated—"it ain't so much for a lot of people like we got here."

"Thank you, Mr. Aaronson. We appreciate your generosity. We'll try to divide it up as best we can. Has anyone else anything? Chocolate bars? Fine. Who'll volunteer to find us a road? Zbradovski? Good; hunt for streams that may run into the Ohio, and if you don't find anything in say half an hour, come on back. And for God's sake don't get lost!"

The blond youth bristled at the suggestion. Lost? He'd been a counsellor at summer camps for half his life—anyway for the last three years. Only women and children got lost. Bridger thought his chest would burst through his shirt as he strode off toward the woods.

The statuesque Henry girl was talking to him again. "This is sort of an em-

barrassing request, Dr. Bridger, but we girls were wondering if maybe some of the men mightn't have extra trousers in their suitcases that we could borrow. These dresses aren't so good for hiking, you know."

"Sure, that's a good idea; I'll see what we can do as soon as we get the baggage sorted out. Philly—you fix them up." Bridger left the luggage pile to the tender mercies of the little icthyologist and the women. His eyes widened when he saw what the Aaronsons were setting out. A picnic! There was enough there for six picnics. Damn lucky for us, he thought. That camp kit that Packard and Morelli have will come in handy, too.

A FEW minutes later Bridger swallowed his last mouthful of lettuce and tomato and gazed vacantly around the crowd. He had the men pretty well straightened out by now, but he couldn't remember the women. The five who looked like schoolteachers were in the Pittsburgh public schools. The graying one was a Miss Hansen, a principal. The blonde who had landed in his lap was Elisabeth Friedman. The other three were named Pierné, Kelleigh, and Slemp, but he didn't know which was which. Mrs. Aaronson, of course, was easy enough to remember. The remaining nine were chorines of Franchot's troup. The tall well-made Jewess was Ruby Stern. That's easy. The one with the pneumatic contours, who said "Pahss the peppah," was Marie Smythe. They might have a problem on their hands with her. The small dark flashy-looking one was Rodriguez. First name? Hell, let it go. The one whose hair had the oddly marbled appearance, her peroxided locks having grown out a foot, was Eleanor Hooper. The little, wistful-looking ash-blonde with the Southern accent was Mary Wilkins.

His glance strayed up to where Mildred Henry, the boss of the outfit, had set up an impromptu barber shop. Just now she was operating on Scherer's hirsute face with a pair of nail scissors.

Speaking of faces, Bridger thought, maybe I'd better get my own zareba trimmed. He took Scherer's place; this woman looked about as safe as any. The Trembley girl was working on Packard nearby.

"I can't figure it out," said the lawyer as the tiny scissors went snip, snip through his whiskers. "No Wheeling, no West Alexander, no telephone wires, no anything. And where did all these mountains come from?"

"Maybe we're in the Alleghany National Forest," suggested one of the younger schoolteachers. Bridger remembered that she was the one named Pierné. "That isn't much over a hundred miles from here. Or rather, from where we thought we were."

"No, it can't be, if you'll excuse me," objected Packard. "I know that country—born in Clarion, as a matter of fact. That's where we were going fishing. These trees seem to be mostly evergreens, and those around Alleghany are hardwoods. Besides, these hills are too big."

"I think we're in the Canadian Rockies, myself," put in Morelli.

"No, that isn't it either," objected Packard. "They're too small for the Rockies."

"You're too damn fussy about your mountains," exclaimed his friend. "If anyone has any better ideas, let's have 'em."

Miss Hansen spoke up: "How is this? It's obvious by now that we've been asleep a long, long time. From the looks of the vegetation, I should say that it is midsummer. The accident happened in December; that's at least six months ago. Perhaps while we were asleep the Federal Government established a new national park in southwestern Pennsylvania—as a public works project, you know — and

we're right smack in the middle of it."

"I suppose the C.C.C. built all those mountains?" asked Packard, with an expression of polite incredulity.

"Oh, let's quit arguing," Bridger cried. "Here comes the Spirit of Youth. Looks as if he'd seen something." He pointed to where Zbradovski had emerged from the trees and was running up the hill, his overcoat plapping behind him. As he neared the group they saw that he was limping. There was a slit in one leg of his gray flannels, and the trouser leg was dark with blood.

HE SAT down heavily, panting. Bridger turned to the bus-driver: "Mr. Toomey, haven't you a first-aid outfit in that bus of yours?"

Toomey grunted "Uh-huh," and lowered himself into the hole. Within a minute or two Zbradovski got his breath and began to tell his story.

"I went through the woods to a place where there was a little stream," he reported, "only the stream was down in a gully with ten-foot banks. I was poking along the bank when I slipped and down I went. I landed alongside of an animal of some kind and it sat up and looked at me."

"What kind of animal?" broke in Bridger.

"A sort of bearish kind of animal. It wasn't a bear, though. I don't know what it was."

"Come now, there aren't many kinds of animals around here. Could it have been a puma?"

"No, I tell you it wasn't any kind of animal you ever saw. It was about my size, all covered with silvery gray fur, and it had a sort of bushy tail."

Packard, grinning, said: "Maybe you looked up and saw a gray squirrel, and your imagination did the rest."

"It was not! I know a squirrel when I see one. It had long paws sort of like hands, with curved claws at the ends of the fingers. And it had half a fish in one hand."

Alice Lloyd, the smallish chorine, giggled. "Did you see what became of the other half, Sneezy?"

The badgered youth glared at her, but went on. "It looked sort of like a magnified raccoon. Well I looked at it and it looked at me and then it reached out with one hand and took a swipe at me. I jumped, but not quite far enough, and it got me in the leg."

"I think he caught his pants on a stump, and is just telling us all this to scare us," said Janet Rodriguez.

"I think he stabbed himself on purpose." said another girl. "He looks like the kind that wants sympathy."

Bridger had rolled up the trouser-leg and was dabbing at a two-inch gash in the calf with his handkerchief. "This looks to me as if it might well have been made by a claw," he said. "It's no cut from a stump, anyway. We'll want to get some water and wash it before I tie it up. You're lucky that you jumped as far as you did. Here's your sandwich. What did you do next?"

"Hopped up the bank and ran. That was the sensible thing to do, wasn't it?"

"Eminently, son, eminently." Bridger sat back on his heels. "Now that all the food's gone, folks, I suggest we build a little fire with the papers, and put some grass on it. Then, if this is a national forest, the smoke will bring a ranger down on our necks in a hurry."

"What are we going to eat next?" asked the blonde Miss Friedman.

"I don't know, yet," replied the lean scientist. "There seem to be lots of grasshoppers around." He grinned at the expressions that his words produced. "You'd be surprised how good they'll be when we get hungry enough."

"What about protection from wild animals?" Ruby Stern demanded.

Bridger frowned. He hadn't thought of that. In the United States the problem was to protect the wild life from the people, and not vice versa. But if the woods were full of Zbradovski's supercoons the arms question might be serious.

"Has anybody a gun with them?" he inquired. "You, Mac? Too bad. Could you get some wrenches and things out of your bus?" he asked Toomey. "A spanner isn't much of a weapon, but it's better than nothing."

"Geez, mister," the driver complained, "how many more times do you want me to climb that rope?" Nevertheless, he disappeared down the hole for the second time.

BRIDGER dumped another fistful of grass on the fire. "How did you happen to be along with us, Sneeze?" he asked Zbradovski.

"Oh, I was acting as herd-boy for Professor Blodgett's white rats. He was going to use 'em to prove something at Pittsburgh. I'm his lab assistant. Don't like the work much, but the old man's business hasn't been so hot lately. Maybe I should have gone to a college where they take football more seriously. I don't know what became of the rats; I guess they work up before we did and chewed their way out of the box. Say, we've had that fire going for an hour now and nothing's happened. How about getting started?"

"We'll have to see about the—oh, he's awake finally." The drunk was sitting up. "Where—wup!—am I please?" he inquired owlishly, squinting. "In Hell, or what? Whass thish all about?"

Things were explained to him, and he informed them that he was Mortimer Wilson, assistant publicity director for a canned-food company in St. Louis.

The others were arguing about what to do next. Macdonald, in his deep bass, insisted that they stay where they were. "Because it stands to reason somebody'll come along and find us if we wait long enough."

"How would this be?" the chemist suggested. "We'll go downhill until we find Zbradovski's brook, and follow it downstream. If we go on long enough it'll empty into a river, and the river will eventually empty into the ocean. Long before that we'll have come to a town, or a road, or something. And that way we won't have to worry about wandering around in circles or steering by the sun. What say?"

No other suggestions were offered, so within half an hour the crowd and their baggage were straggling off downhill. The afternoon was hot and muggy, and some of the women experienced the tortures of the damned in their inadequate shoes. As they neared the heavy timber, four shaggy forms about the size of bears silently rose out of a patch of tall grass, to sit on their haunches and stare at the people with black, beady eyes. The women in front screamed and ran back, and those behind ran forward to see what was up. Franchot swung into the branches of a maple with monkeylike agility.

While the rest jabbered and wondered whether to run, climb, or stand their ground, the beasts dropped to all fours and trotted off, with no great haste, into the woods.

Scherer was besieged with questions. "I don't know!" he told them. "I never saw anything like that before, and I don't think any other zoölogist did either. From the shape of their skulls I'd classify them as rodents, but nobody ever heard of a rodent that size since the Pliocene."

SOME of the girls wanted to return to the open hillside rather than plunge into unknown perils of the forest. More argument followed, until at last Packard said, "The trouble seems to be that we haven't anyone to make decisions. We'll never get anywhere if we stop every five

minutes to argue. We ought to elect somebody to run the show."

Charles Morelli immediately piped up: "I nominate Mr. R. Nelson Packard as boss."

Scherer growled "Teamwork, huh? Well, I nominate Dr. Henley D. Bridger."

Bridger looked astonished. "Huh? Me?" But he did not decline.

"How about speeches?" asked the Henry girl.

"Naw," said Zbradovski. "You get that lawyer going and we'll be here till dark. Suppose we give the nominators five minutes apiece."

And so it was done. Morelli gave a eulogy of Packard's practical experience (he had once been an Ohio State Senator), his knowledge of public affairs, and his general fitness for any and all public offices. When Scherer's turn came he dwelt on Bridger's brilliant scientific record, the fact that he had never been involved in any political scandals—here he looked hard at Packard, who returned his gaze imperturbably—and the natural talent for leadership that he had shown theretofore.

After some discussion, it became evident that the educational brigade was going to vote solidly for Bridger, together with Wilson and Zbradovski, and that most of the others would plump for the lawyer. When the vote came, a last-minute defection by some of the chorines tipped the scale 16 to 9 in Bridger's favor. The loser came over, smiling blandly, and shook Bridger's hand—he'd have made a speech if Bridger had not stopped him—and soon the party was under way again.

CHAPTER THREE

Blodgett's Fluid

THEY plunged into the forest. The sun had nearly set, and the woods were growing dark, when they came into a small clearing in the pines. Zbradovski,

who was leading, stopped short. In the space lay the carcass of some small animal, and standing over it was what looked like a large English bulldog with a black awning draped over it.

The beast raised its head, and those in front saw a fearsome countenance, with huge ears and long bloody fangs. It shrieked horribly and sprang straight at them. Marie Smythe, behind Zbradovski, shrieked even more loudly and jumped back, upsetting Ruby Stern who in turn bowled over Aaronson. The thing as it leaped opened its awning effect into a pair of huge leathery wings, on which it beat its way round and round the clearing, swooping low over their heads. Higher and higher it went, until it disappeared over the tree-tops.

Scherer pulled the two women off the breathless Aaronson, "Anybody'd think you'd never seen a bat before," he growled. "Haven't you any self-control at all?" To which the Smythe girl answered that she had seen plenty of bats, but never one with a twenty-foot wing-spread. "And neither have you," she added pointedly.

Zbradovski sought out Bridger. "We ought to have come to that stream long ago," he said with a worried frown. "I—I'm afraid I got us off on the wrong watershed or something."

Bridger sighed. "That's too bad, but there's no use chasing around in the dark hunting for it. We haven't died of thirst yet, and I guess we can last out till morning. Anyway, that carcass over there looks as if it might be good eating."

"Oh no you don't," broke in Scherer. "I want to examine the whatsit first by daylight, and see whether it'll give us a clue to where we are. You can have him for breakfast when I finish with him."

"I guess you're right, Emil. All right, folks, we're going to camp here. Mac, suppose you and Sneeze get some firewood . . ." He went on to give directions until everyone was busy . . . .

WHEN Bridger awakened the next morning, he lay for a few minutes wit with his eyes closed. He'd had the damnedest dream—something about being lost in a primeval forest with a bus-load of all kinds of people. Nobody knew how they got there, and they'd elected him chairman. Uh. The bed did seem rather hard this morning. He slowly opened his eyes.

It hadn't been a dream, worse luck. Scherer squatted in front of him, thoughtfully dissecting the carcass of the bat's prey with his penknife, and making occasional notes. He looked up.

"Oh, hello, Henley. It looks as if we had an overgrown member of the Geomydae—gophers to you—with modifications indicating probable bark-eating, non-burrowing habits. Now if you'll wait just a minute while I get the stomach open—Ah, bark sure enough. Don't ask me why a gopher should be the size of a bobcoat, because I don't know. Now just as soon as I get the skin off you can fall to. Better get some more wood for the fire and roast him—or her, I should say."

The Aaronson child rebelled at the unaccustomed food, and when his mother tried to reason with him he set up such a screaming that Morelli said "Aw for Chrissake, brat, shut up!" Little Oiving promptly walked over and kicked Morelli in the shins. "I'll fix you, you little—", the victim yelled, but before he could do more than raise his arm Mrs. Aaronson descended upon him like a tigress defending her cub. Bridger, trying to eat, inventory the party's belongings, listen to Scherer's theories about the local fauna, and answer foolish questions from six of the younger women, all at once, had to come over to pacify the disputants.

He called for attention. "I think we need some more people to handle things," he told the crowd. "There are too many of us for rugged individualism to work very well. Suppose I make some temporary appointments, and then tonight we

can confirm them by regular vote, if you approve, and draw up a few rules to govern ourselves. Emil, you be vice-chairman. Mr. Aaronson, you're a businessman or something; you can be our Commissioner of the Commissariat. You finish the inventory and keep track of all the junk and supplies hereafter. Mr. Packard, you're our magistrate. Mac, you're the cop. I suggest that you start by arresting Miss Smythe for wasting a match on a cigarette just now, and bring her to trial before Judge Packard at once."

Marie Smythe's pseudo-British voice rose in indignation and alarm. "But you cahn't—I nevah heard of such—" Macdonald was upon her before she could run, and dragged her before Packard. A slightly satanic smile appeared on the lawyer's face, and he spoke two words: "Twenty spanks!" The sentence was carried out with gusto, and the lady retired into the timber to weep with rage and mortification.

Finally Bridger said to his new Lieutenant, "Looks like we're ready to move, Emil. Better bring along the larger bones of your what-is-it; I see you've got the skin. Those leg-bones look like handy shillelaghs."

"Let's call it a gopheroid," said Scherer. " 'Gopher' for 'gopher' and 'oid' for 'something like'; in other words, something like a gopher."

"Which," replied the chairman with a grin, "would make that nightmare we saw last night a batoid, and you, my dear Emil, a manoid."

THE morning was sultry, and the party was soon drenched with sweat. On they went, always hoping for sight of a stream. About two in the afternoon the sky became overcast; by three a distant mutter of thunder was heard, and by four the rain was coming down in bucketfulls. They kept fairly dry for about fifteen minutes; then water began to trickle off the ends of the branches. But nobody really minded: the whole party was running around with cupped hands looking for the fattest trickle to furnish them with a drink. When the setting sun came out, one and all were soaked to the skin.

Bridger led his waterlogged crew through the dripping forest to the top of the nearest rise. "Maybe this place will drain off a little quicker than the rest," he told them. "No, I'm sorry, Miss Friedman, but I haven't any idea when we're going to eat again. Bananas don't grow on pine trees, you know. Now, if anybody has any dry matches we'll start a fire."

Matches appeared from pockets and handbags, all more or less wet. Even the fishermen were no help. When several matches had been ruined by trying to strike them on damp books, Bridger said, "Here, we can't afford to waste any more."

"You can make fire by rubbing sticks together," said Zbradovski.

Bridger doubted it, considering the dampness, but he did not discourage the young man. Barnes whittled out a bow, spindle, and bearing, shyly admitting that he had practiced wood-carving as a hobby in his youth in Vermont. One of Morelli's rawhide boot-laces served as a bowstring.

Zbradovski went about his twirling with grim determination; he had been smarting under the girls' jibes about the contrast between his powerful frame and the delicate yellow fuzz on his face. He twiddled and twiddled; the stars came out, and still there was no result. A cool wind added to nobody's comfort.

"This Boy Scout business is a lot of hooey!" Alice Lloyd complained. "We need a full-blooded Indian along with us to do it."

Zbradovski rose, grunting as he straightened up. "Somebody else wants to try?"

Scherer said, "You take it, Abner; you've been in the field." "Yeah," replied

Barnes, "but I always had sense enough to bring a match safe along."

He twirled for a while with no better success. Scherer followed with equal futility. Then a voice wheezed, "May I please —ic!—try next?"

"Aren't you sober yet?" cried three voices at once. Wilson, with a trace of wobble in his walk, marched over to the apparatus, fumbled with it, got the bowstring looped around his thumb instead of the spindle, but finally had the device buzzing merrily. He sawed away; then Toomey said in an awed voice, "Mother of God, if he hasn't got a fire there after all!"

Wilson twirled harder than ever. "Tinder, you guys!" he demanded.

"What's tinder?" asked a feminine voice. But Bridger was carefully poking shredded birch-bark at the drill-hole. Wilson twirled and blew and twirled some more. With his hair and whiskers still uncut he looked in the faint red glow like a gnome out of the Niebelungenlied. The first little yellow flame appeared and grew. Nobody said a word. Soon a real fire was crackling under the trees. It sputtered dismally and sent off clouds of smoke, but who cared?

BRIDGER and Scherer, comfortably warm, walked up the granite ridge that rose near one end of the camp. "If we don't get these folks some food soon there's going to be trouble," said the chemist. "The men aren't so bad, but some of the women are beginning to kick already. Say, did you learn anything from the paper?"

"Paper?" queried Scherer. "Oh, you mean Blodgett's. I've been meaning to tell you. It clicks all right.

"It seems he'd been working on the aestivation process in *Protopterus* and *Lepidosiren*. As you may or may not know, the whole lungfish family has a screwy metabolism. For instance, during aestivation they get a urea concentration one per cent of which would kill most vertebrates. There doesn't seem to be any limit to the time they can aestivate, or if there is it hasn't been found experimentally.

"Well, Blodgett was hunting around for the regulating agent that controls the rate of katabolism, and he found it. He failed in his efforts to get the stuff pure, but he did learn some things about it. It seems to have had a lot of unlooked-for effects on the rate of a lot of inorganic reactions. Which is probably why our clothes and stuff haven't all oxidized.

"That's what he had in that flask. At normal temperatures it's a liquid with a high vapor-pressure. I don't know whether he opened the valve on purpose when he saw the crash coming, but if he did he certainly did us a good turn. Of course, the stuff evaporated like nobody's business, which is why we smelled it. And here we are!"

"I see," said Bridger. "Let me think—for one thing, all bets are off as to how long we were asleep. The rate of growth of hair and nails would drop off asymptotically, like everything else. But why didn't they dig us out? You'd think—say, Emil, look! Do you see anything funny about those stars?"

The ridge was bare of trees, giving a good view of the sky. Scherer stared up. "Seems to me I do; I'm no astronomer, but I've slept out enough to have a pretty good idea of what they ought to look like. That constellation over there looks something like Libra, but no—it's too long, and a couple of the bright ones of Libra are missing. Let's see if any of the gang know about stars."

THEY went back and questioned those who were still awake. Ruth Pierné said that she ought to know a little, "Because heaven knows I've spent enough time trying to explain them to my sixth

graders." Julius Aaronson, surprisingly, turned out to be an amateur astronomer of some standing. "I was the thoid man to report a nova last year," he stated proudly. When he was led to the point of vantage on the ridge, he announced at once that he had never seen an array of stars, either in charts or through the home-made telescope in his back yard, that looked anything like those above them. Miss Pierné confirmed his opinion.

Scherer smacked his left palm with his fist. "That clinches it!" he exclaimed. "It all fits. In just a few hundred or thousand years the constellation might be somewhat distorted, but they'd still be recognizable. But after a million or more the stars would have shifted around so you couldn't recognize a thing. And it would take that long for our familiar gophers, bats, and what-not to evolve into the animals we've been seeing."

It took several minutes for this stunning news to penetrate. Then Aaronson said timidly, "But—but—you mean—the woild—our woild—is gone? We can't go back again never? And all our friends and relations is dead?"

"What a horrible idea!" exclaimed Miss Pierné. "What on earth would we do if we were the only people in the world? Just think of crawling around this endless forest the rest of our lives!"

"It's not a pleasant prospect, I agree. However, we'll know more after we've been traveling a little longer. Meanwhile we'd better get some sleep. Tomorrow'll be time enough to tell the others. And we'd better break the news gently. We don't want any nervous breakdowns."

CHAPTER FOUR

A Million Years of Sleep

NEXT morning the four took the others aside, one at a time, and explained their discoveries. Reactions varied. Ronald Franchot said "Hell, if I pulled a gag like that on the boards the audience'd walk out on me!"

Morelli said, "You scientific guys give me a pain. I think you're makin' all this up to scare us."

Marjorie Trembley said, "Oh, isn't it just divine? Just think of the thrill of being off in the wilds and creating new lives for ourselves!" Scherer, who was not a sweet-tempered person, had an urge to strangle the woman.

Toomey, after Ruth Pierné had explained the thing three times, walked off scowling in an effort to understand. Elisabeth Friedman threw a fit of hysterics and had to be sat on. Marie Smythe wept. Miss Hansen merely said, "Well, Mr. Aaronson, I'm glad to see that you're not making a fool of yourself about this the way some of us seem to be doing. You'd better help me get some more wood for the fire."

Mortimer Wilson, sober at last, volunteered to carry the "sacred fire". They had gone about half a mile when he yelled, dropped his precious bundle, and did a war-dance around it with his thumb in his mouth. "I told you it would burn through," Barnes told him dryly, "but you weren't listening. If you'll all wait while I whittle a holder out of this sapling, I think we shan't have any more trouble."

Bridger, slogging along at the head of the straggling column, thought, I never did so many pound-miles of baggage-toting in my life; I ought to be able to get a job as a porter in a railroad station easily. And I'd like to sock the next one who says, 'Aren't we *ever* going to find a stream?' That's what you get for being one of these conscientious people who take responsibility. Wish Emil would quit whistling that Victor Herbert thing. Doesn't he know any other tunes? Wait a minute—wait—a minute—do I hear water ahead, or am I getting delirious?

He kept on without speaking for a few

yards; then somebody behind him whooped: "Water!" Packard and Morelli were scrambling furiously among their belongings for their fishing-tackle. They raced ahead, and by the time the Aaronsons—in the rear as usual—arrived at the bank, they were whipping the water with their lines.

The stream was a good twelve feet across, and the fish fairly fought for the flies. Most of them were trout-like, though James Pilly pronounced them "rather more like landlocked salmon." The unfortunate little man had become unstrung by his experiences, and either chattered uselessly or wept most of the time. But he still knew his fish.

With stomachs full, everybody became genial. Franchot appointed himself director of entertainments; he tap-danced, told stories of all ages and degrees of propriety, and led the party in songs.

Little Oiving began to take an interest in life again. The first manifestation was his stealing one of Morelli's precious flies, sneaking up behind Toomey, hooking an ear, and giving a sharp yank. The resulting riot ended with Oiving, a handkerchief stuffed in his mouth, held by Zbradovski while Macdonald spanked him and Scherer and Toomey held Mrs. Aaronson.

BRIDGER had been consulting with Barnes and Scherer. Now he announced that the party would cut stakes to make a fence around the camp.

At once there were protests. Franchot, lying on his back, said "Aw, have a heart, guy. I'm so tired I can hardly move. Nothing's going to eat us, anyway; these animals run if you throw a stick at them."

Scherer bristled. "You'll cut those stakes and like—" he began, but Bridger cut in: "Let me handle this, Emil. I admit I should have thought of it before, but I was too much worried about finding food and water. Maybe Ronnie's right about the animals' being harmless, but this would be the first fauna I ever heard of without carnivores. And I don't mean to let anybody be devoured in his sleep if I can help it." With more argument and persuasion, the chemist got the saplings cut and planted.

The resulting barrier did not look very strong, but Scherer reassured them. "Most animals haven't sense enough to push through even a weak fence," he said. "They snuffle up and down looking for an opening, and if they don't find one they get discouraged."

Next day they loafed and nursed sore feet, while the fishermen explored the stream for more pools, and Barnes whetted one of the Aaronsons' six table knives on a stone. By noon he had a fair point. With this, a cut sapling, and a strip of gopheroid hide he made an effective-looking spear. Others admiringly tried to imitate him, but made little progress before darkness fell. The archaeologist smiled his shy Yankee smile at them, and said "It's too bad the rest of you didn't have the advantage of being brought up on a fa'm." With his help, the next day saw the addition of six useful spears to the armory.

THE days passed with little excitement except an occasional shaggy form half-seen through the timber, and a few roars and snarls near the camp at night. Then, in the middle of a march, they found themselves on the inside of a fork made by the confluence of their creek with a small river. To continue they had to wade.

While the women retired to dry their clothes, the fishermen wandered down the river-bank. Morelli's sharp New Yorkese floated back: "Hey, everybody, come on down here. We got an idear!"

Packard explained: "You see these shallows? Well, suppose six of us take the spears and go downstream, and everyone else can wade down from above splashing a lot, and the spearmen can stick the fish as they go past."

The idea was carried out forthwith, with much feminine shrieking. Pilly made a wild lunge at a sucker and scored on Zbradovski's big toe, but otherwise the plan was a huge success.

They rested and hiked again, and found a beautiful waterfall with a deep pool below it and rapids below that. The sunlight slanted down through the trees that stuck out from the rocks on either side. Toomey asked Morelli to be allowed to try his luck with a fishing-rod. Morelli showed him the rudiments of fly-casting, and Toomey, after hooking his clothes and the foliage overhead, seemed to catch on. For half an hour he whipped the pool, while the shadows deepened.

Then he had a strike. For a few seconds he played the fish; then came a tug that almost snapped the rod. He started to call out for instructions, but his shout stopped in his throat. He hurled the rod from him and ran like a deer. The waters parted, and up the bank sprang six feet of sleek brown fur; a short-legged, small-eared carnivore with its mouth, from which Morelli's line trailed, opened in a spitting snarl.

The camp was vacated in a matter of seconds.

The minkoid, if such it was, stood up against the tree in which Barnes and Ann MacIlwraith, the quiet chorine with the Scotch burr, had taken refuge. "Looks so't of wistful, doesn't he?" observed the archeologist. "Wistful, foosh!" replied the girl. "He's hungry!"

The beast sat down, tore the hook out of its lip, and padded off downstream. People drifted back, among them the angler, still slightly green.

Bridger came running to see what had happened. When things had been explained, he said, "Tough luck, Dave; it looks as though you'd have to dive for the rod."

"Waaat?" said Toomey, "Me dive in there, with God knows what waiting to grab me? Not on your life!"

Bridger tried reason. "If there's anything else in there it's been scared out by all this commotion. And we've got to have that rod; it's a matter of life and death for us."

Toomey, standing with his back to the water, glowered down at the chemist. "Listen, shrimp," he rumbled, "I ain't gonna dive in no pool for no fishing-rod, and no peewee perfessor is gonna make me. Get it?"

Bridger glanced around. Aaronson, Pilly, and Wilson, the only males in sight, would be of doubtful help in applying sanctions. Without further words, he reached up and hit Toomey in the nose with all his strength.

Toomey's arms flailed the air; then he toppled backwards and vanished with a tremendous splash. When he reappeared, Bridger had armed himself with a stout

branch. Toomey paddled up to the steep bank; Bridger raised his club, and the ex-driver slipped back hastily into the water. He swam up and down, but Bridger followed and was waiting each time with the branch. Upstream was the waterfall; downstream were the rapids. Toomey, treading water, expressed fluently his opinion of Bridger and Bridger's ancestors.

After an hour of this, cold and weariness got the better of Toomey. The rod was retrieved and returned to its owner, and the dripping Toomey stalked off to sulk.

CHAPTER FIVE

The Climbing Birds

THE morning after his brush with Toomey, Bridger wandered down to the bank of the stream, where Barnes was industriously shaving down a length of ash sapling.

"What are you whittling, Abner," he inquired, "another frog-spear?"

"No," replied the archeologist, "this'll be a bow, I hope. It was Mildred Henry's idea. There's enough gopheroid hide left to make some bowstrings. I don't say it'll work, but the girls are determined. The Slemp girl says she did some archery at no'mal school."

It didn't work; the arrows turned end-over-end in the air, and never came near the target. When Eleanor Hooper's efforts had proven no more successful than the teacher's, the chorine tried to break the bow over her knee. Scherer, watching amusedly, exploded.

"What the hell's wrong with you? Never saw such a bunch of dumb women in my life; blowing up the minute anything goes wrong. Too bad we didn't leave you in the tunnel."

"Who do you think you are, you big lump?" replied the girl. "You professors are just a bunch of dirty snobs. We do our best, and all we get is a bub-bawling out." She dissolved in tears.

"Yeah, and you're the worst of them," accused Alice Lloyd. Others took up the chorus. The harrassed Bridger spent an hour getting feelings soothed and apologies all around, but the atmosphere of discontent had deepened considerably.

Three more days of experimenting by Barnes saw the production of some arrows that wouldn't turn somersaults in flight. They had wooden vanes; for nobody had been able to kill a bird by throwing stones. Mildred Henry announced with pride that she could hit a two-foot lichen at twenty feet once out of ten tries, and some of the others were nearly as good.

Then a hot spell fell on them. Bridger, watching them glower and snap at one another, thought, all we need now is one little incident, with all these hairtrigger tempers, to split us wide open. Good Lord, what can you do with an unpredictable gang like this? Now Wilson's sore because I won't try those ten thousand half-baked ideas of his. It would be bad enough without all these prima donnas of both sexes. . .

DURING the mid-day rest he heard voices raised in argument; then angry shouts. He arrived to see Franchot lying among the ferns, blood trickling from his mouth. Macdonald stood in the clear, hitting out savagely at Morelli, Wilson, and Zbradovski. Barnes and Packard were wrestling and pummeling beyond. Just then the college boy brought down the beefy cop with a flying tackle.

Bridger yelled "Hey, Emil!" and started forward. Somebody seized him from behind in a bear-like hug; a huge sweaty arm covered his face. He wriggled and kicked, but presently he was flat on his face in a bush with his arms twisted behind him. He heard more footfalls, shouts,

and crashings, and felt his wrists being tied. Then silence, except for labored breathing.

From behind his head came Toomey's familiar growl, "All right, Shrimp, you can roll over now," and the agonizing pressure of two large knees was removed from his kidneys.

He sat up, wincing. He hoped he had no cracked ribs. Aaronson was crawling by on all fours, blood dripping from his grotesquely swollen nose. Scherer and Barnes had been trussed up with bowstrings, like himself. Macdonald lay where he had fallen. Franchot was getting up. Pilly hopped about on the fringe, squeaking something about "outrageous behavior." The women ringed the battlefield, talking in low voices.

Toomey squatted in front of the chemist, grinning through his thick black beard. "I ought to beat the — out of you, after what you done to me, but I never did like picking on *little* guys." He reached out and tweaked Bridger's nose. "How do you like that, Mr. God Almighty?"

Bridger spat out a twig, and said, "Will somebody please tell me what this is all about? What have you done with poor old Mac? Killed him?"

Wilson appeared at that moment with a hatful of water, which he sloshed in Macdonald's face. The fallen warrior groaned and tried to sit up, but was promptly hog-tied.

Morelli answered Bridger: "He's all right; just hit his head on a root. Ronnie here and I were throwing my hunting-knife at a tree. Mac told us to stop for fear it would sperl the pernt. Well, one thing led to another, and Mac used some four-letter words on Ronnie, and Ronnie took a poke at him, and Mac socked him. That made us all kind of mad, on account of Mac's been getting pretty free with his lip lately, and we ganged him. Then Abner and you and Emil and Julius came along and started to mix in, and we had to tie you up to keep you from massacring us."

Hm, thought Bridger, now we *are* in the soup. He looked across to where Little Oiving, undeterred by threats, was trying to poke a long grass-stem into Scherer's ear.

PACKARD, straightening his clothes, was donning his best Senatorial manner. "Well—ahump—I'm afraid this is going to make a difference in our arrangements for the future—"

Bridger interrupted him. "Before we talk about the future, I suggest that you untie us. This is a lot of damn nonsense, you know. I'll promise that none on my side will start anything."

It was done. Eleanor Hooper's voice rang out, "We want Packard for chairman!"

"Yes," said Alice Lloyd, "We've had enough of the professors!"

Packard's manner became positively buttery. "That's very nice of you girls, but of course we want to do everything in proper legal form. Let's see, now, I believe that the constitution that we drew up provides for impeachment—"

Bridger knew his face was red. "I'll save you the trouble," he snapped. "I resign!"

"So do I!" roared Scherer.

"Oh, come now," wheedled the lawyer, "Don't get angry. I'm sure that we all want to do what the majority wishes. Suppose we hold another election right now and settle things."

"I nominate Mr. Packard!" It was Morelli, of course.

"Ahump." Packard looked around. "Are there—ah—any other nominations?"

"I nominate Dr. Henley Bridger!"

Bridger started. It was the Pierné girl —the one who knew about stars. Funny —he hadn't noticed her much since that night. Come to think of it, she always seemed to be working on some job. Well,

it's nice to know that you have some friends.

"Seconded!" The prim Miss Hansen spoke up.

The result, of course, was a foregone conclusion. The new chairman announced his appointments — Morelli, vice-chairman; Toomey, policeman; Wilson, commissariat officer. He kept the magistracy himself.

Bridger and Scherer marched along, nobody bothering them. The others showed a slight embarrassment in speaking to them. "Henley, maybe we weren't so smart to resign in such a hurry," Scherer said in an undertone. "We played right into the old boy's hands. God knows what'll happen to the gang now!"

"Yeah, I've been thinking the same thing. We should have offered to resign effective as of this evening, or something to give 'em time to cool off. But when he said 'impeachment' all I could think of was how damn sick I was of trying to run this outfit."

"I've been thinking," the mammalogist continued. "We don't seem to be getting anywhere just going down the river; how would it be if you and I took a little side-trip, to scout around? Let the angry passions cool off, as it were. Maybe they'd appreciate us when we returned."

"Hmm. Dunno—might be a good idea, but I'm nervous about leaving the crowd to R. N. P.'s tender mercies. . . . Let me think it over a while."

That evening Morelli caught a twenty-pound fish. Everyone dropped what he was doing to watch; Morelli's forehead glistened with sweat as he watched his slender rod bend. Half an hour of the most skillful play was required to land the brute.

That section of the river was exceptionally good for fishing. The haul was so rich that Bridger and Scherer, examining it, decided to spring their plan.

Bridger explained it to Parker and the rest. "I'm afraid we'll have to take along about all the fish you can spare," he concluded. "Yes?"

Pilly was snapping his fingers for attention, like a goat-whiskered schoolboy, "I'd like to go too."

"What on earth for, Jim? You may have trouble keeping up with us."

"But," squeaked the little scientist, "I've examined and classified everything that swims in this river, and I'd like to try another watershed. I do wish you'd let me go."

"Oh, all right. But if you get lost we'll take it out of your hide." Maybe we can get him out of his jittery mental state, Bridger thought. It's worth trying, anyway.

Barnes approached Bridger privately with a request to go along, but the chemist vetoed it. "We'd like to have you, Abner," he said, "but we've simply got to leave somebody here who knows some thing, and who can make fish-spears and things. Sorry, but you're elected. We'll be back in a day or two."

THEY set out just as the birds were tuning up for their four A.M. concert. Bridger carried a spear and some odds and ends tied up in a shirt; Scherer, a spear and a suitcase stinking powerfully of its contents of fish; Pilly, his bow and arrows.

All day they marched, checking direction by Scherer's wrist-watch. An occasional rustle in the brush made them go warily. Once they surprised a large, rotund beast in the act of tearing open a rotten stump for ants. It rose on its hind legs. "Everything seems to sit up and stare at you," Bridger muttered. "Here! It's coming; stand together and back up slowly."

The beast advanced a few steps, baring huge incisors and making a noise like that of a deep-voiced sheep. It halted and repeated its strange bleat; two smaller

editions bounced out of the ferns and got behind it, peering beadily around its legs. The men retreated step by step. When they were fifty yards from the rodent, it too began to back, kicking its young along with its hind legs. Then it wheeled and trotted off.

"Whew!" said Bridger, "I hope we don't meet any more of those. It reminds me of Mrs. Aaronson. We—hey, what's wrong with you, Jim?"

Pilly was sitting with his back against a tree, mopping his pale face with his sleeve. "I—I'll be all—right in a minute," he quavered. "Just—my nerves aren't as good as they used to be."

"Oh, for Christ's sake!" Scherer blurter. Then—"sorry, it isn't your fault. Come on, buck up; it'll be time enough to worry when one of them really does take after us." He and Bridger got Pilly back on his still wobbly legs.

The ichthyologist did not prove a cheering supper companion. He blubbered about how he would never again see his snug home in New Rochelle—never again sail his beloved sloop on Long Island Sound. . . . "*Please* quit it, Jim," begged Bridger; "You'll be having us crying in another minute."

". . . and I'll never see my little granddaughter—the cutest baby. It's not so bad when you're young, but I'm not any more. . ."

That night Scherer proved that, in addition to his other accomplishments, he could sleep soundly in the crotch of a tree, but the other two had a miserable time. Bridger, squirming on his perch, called over to Pilly, "By God, Jim, if you let out one more complaint about the mosquitoes, I'll break every bone in your body!" But he couldn't blame the poor devil. They must be eating him alive.

THE next day was hot and damp, with an overcast sky. Their clothes clung to them in dark patches. They blundered into a swamp, and spent hours pulling their weary legs out of mudhole after gurgling mudhole. Once Bridger went in up to his waist, and had to be hauled to safety with a vine-rope. Flies of all sizes tormented them, some big enough to draw blood when they bit.

A tree-crowned island drew them; they stumbled toward it with the intention of eating their meager lunch, eked out with a hatful of raspberries. Scherer, in the lead, whooped as he reached dry ground. "Hey you guys! Come here and see what I found!"

The other two scrambled after him. Among the trees were scattered fifteen huge nests, each containing several eggs the size of ostrich eggs. Without further words each man pounced on an egg, punched a hole in it, and was soon noisily sucking the contents.

Half an hour later Scherer threw away the shell of his third egg and wrung the goo out of his beard. He sighed happily. "Never thought I'd find a raw egg better than a dinner at the Waldorf. That's the first thing I'd call real food that I've had since we started. Wonder what sort of bird—oh Jesus, look what's coming!"

They looked. A lithe, fox-colored rodent the size of a tiger was trotting through the swamp toward them. It saw them, halted, flipped a long bushy tail over its back, and charged with a thunderous snarl.

Bridger shouted "Take to the timber, boys!" and swarmed up a convenient maple. Scherer, in another tree, was hardly slower. But Pilly, after staring foolishly for three precious seconds, tried vainly to climb a tree that had no branches near the ground.

Bridger felt his heart turn over as the red beast reared and hid from view all but Pilly's skinny arms, still hugging the tree-trunk. He heard the old man's despairing shriek; heard his own voice, oddly shrill, crying "Jim! For God's sake!"

For a fleeting half-second thoughts of climbing down and attacking the animal raced through his mind, but before he could stir from his perch he saw that the squirreloid had Pilly down and had cracked his skull like a nut with its huge incisors.

Bridger cursed himself for not having stood the beast off until Pilly was safe, for not having boosted Pilly up his own tree by main force, for not having done a half-dozen other impossible things. That's the trouble with being one of these damned intellectuals, he thought bitterly; can't make up your mind in emergencies, and when you do, it's too late to do any good. God damn brains, anyhow!

Meanwhile the squirreloid proceeded in businesslike fashion to devour Pilly. The two scientists watched and listened fascinated, too sick to call to each other. There was nothing they could do. Bridger heard the tough mammalogist noisily losing his three eggs and wished miserably that he had never been born.

The creature had finished its meal and was sitting up and polishing its whiskers, when there was another noise. Something was coming plop-plop through the swamp. The men saw a flash of color through the branches. The thing stopped, squawked, and came hurrying on. In a moment they saw a huge green-and-yellow bird, with a body the size of an ostrich's, but shorter legs, a short neck, and a huge head with an enormous hooked beak. It held out stubby wings as it ran.

THE squirreloid dropped to all fours and stood its ground, snarling defiance. The bird gave a scream that hurt the men's eardrums and sprang to the attack. Several green feathers flew into the air and gyrated slowly earthward, but the bird had avoided the beast's teeth as quickly as the latter had dodged the flashing beak. They circled, and the great bird screamed again. Answering screams and a splashing and crackling told of the approach of reinforcements.

The squirreloid leaped to one side; then rose and tried to hug its foe's thick neck. The bird whirled on one leg, and the two men heard its foot thump against the fur-covered ribs. The beast was bowled into a nest, and rose smeared with egg, its grinning mouth full of feathers.

Then a score of birds — parrotoids, Bridger thought — arrived with an appalling racket and fell upon their enemy. Red fur and green feathers flew before the squirreloid rolled free of the melee and fled. Several parrotoids pounded off in pursuit, but the rest remained, screaming and cackling. Presently one, cocking its head sideways, caught sight of Scherer on his branch. Its shrieks brought the others around the base of the tree.

For a while they simply yelled. Then one began to hunt around purposefully. Finding a stout limb at the right height, it hooked its beak over it and began to hoist itself, inch by inch.

Scherer's eyes bulged. He would not have believed that the 300-pound bird could climb. But up it came, with slow, cautious, mechanical movements, testing each branch before putting its weight on it. The scientist was reminded of purse-crabs that he had seen climbing for coconuts in Samoa, and the memory did not comfort him.

Bridger, scarcely daring to breathe, had inched his way into the thickest foliage he could find. He moved his head until he found a gap in the leaves that enabled him to keep Scherer's tree in sight.

The bird continued its slow-motion progress, stopping every few minutes to consider how to negotiate the next branch. When it was half way to his perch, Scherer bestirred himself and started to climb higher. Almost immediately he observed what he had not noticed before: that the trunk ended in a jagged stump twenty feet above his head.

Arriving there, there was nothing for him to do but select the largest of the branches that radiated out below the stump, crawl along it, and wait.

AN hour dragged by before the parrotoid arrived at the upper terminus of the trunk. It stared at Scherer for a while, first with one eye and then with the other, squawking angrily to its mates below. Then, taking Scherer's branch in its beak and two lower branches in its talons, it began edging out from the trunk.

Keeping about ten feet between himself and his pursuer, Scherer backed along the limb, which bent more and more under the combined weight of man and bird. As the branches thinned the bird moved more cautiously, and when they ceased to afford a good grip for its claws it halted. By this time Scherer was dangling like an oriole's nest from the end of his branch, and sweating harder than ever he had in the Malay jungle.

For a while things remained as they were; the bird was apparently content to stay where it was all afternoon. Then Scherer heard more squawking below, and unhappily observed that another parrotoid was climbing an oak whose branches came close to his precarious refuge.

He watched the bird's agonizingly slow progress. He had begun to wonder whether Bridger would be able to make his way back to camp alone after he had been killed, when the second parrotoid arrived at his level and started out along two thick boughs that passed a scant four feet below him.

Oh, Jesus, that's done it, thought the scientist, he'll be able to reach me sure. It looks like the dramatic end of Emil Ludwig Scherer, Ph. D. If only I could have seen those kids just once more. . . .

The bird moved with infinite slowness, bracing itself with half-spread wings. As it approached, the mammalogist's hopes, which had been around absolute zero, suddenly rose. The branches on which the parrotoid was teetering were slowly bending downward, every foot of its advance causing a drop of a few inches! By the time it was directly below him, hunter and hunted were a good twelve feet apart, and the bird was nervously clinging to its own none-too-secure perch.

It tried to reach him with its beak, but each time instantly grabbed one of its own branches as they swayed with its movement. It screamed, but the sound merely hurt the man's ears. Finally it commenced its slow return journey.

When it reached the trunk, Scherer had a moment of apprehension lest it should climb further and try coming back on a higher branch. But it started down without hesitation. Whew! thought the man, thank God they didn't evolve brains in proportion to their size!

The sunless sky had begun to darken,

when a quivering of Scherer's branch told him that parrotoid number one was also taking its departure. When it reached the ground he started back toward the trunk. At first he could not unclasp his hands from the branch, so long and so tightly had they been clenched. He found a satisfactory crotch, strapped himself to it with his belt, and prepared to spend the night. The birds settled down on their nests, all but those whose eggs had been destroyed, who wandered about squawking disconsolately.

By the time the morning sun had dispelled the mist the parrotoids were up and carrying on their discordant conversation. By seven o'clock by Scherer's watch (which, being a true scientist, he had not forgotten to wind) they were wandering off across the swamp. Some cocked their eyes up at the trees, but confined hostilities to a few meaningful squawks.

When the last bird had disappeared, Scherer called softly, "Hi, Henley! Are you still alive?"

"Yes, damn it," came the reply through the trees, "What surprises me is that you are. I thought the pretty pollys had you for sure. What do you say we pull foot?"

"Can't be too soon for me; I'm coming down now. Hope I wake up and find myself back in good old Milwaukee. Uh!" A branch cracked under him, and he had to hug the trunk.

Grimly the scouts gathered up their belongings, and examined what little was left of James Oglethorpe Pilly. They salvaged his shoes, pocket-knife, handkerchief, pencil-stubs, and thick old-fashioned gold watch. That was all. . . .

CHAPTER SIX

The Restoration

MARJORIE TREMBLEY looked up from her raspberry-patch and saw two men striding towards her. She shrieked, "The professors are back! The professors are back!" Shouts answered her, and the sound of people running. . . .

Well, Bridger thought, I never expected such an enthusiastic reception as this. I suppose the girls mean well, but I wish they wouldn't all try to kiss me at once. Makes me feel like such a fool. . . What's the matter with them? They look as if they'd been through the wringer. Dave Toomey's looking more morose than ever, and where did he get that black eye? He realized that he was being asked about Pilly, and saw from their faces that they knew the answer before he spoke.

"He's—dead. An animal got him."

Now Packard appeared. Good Lord, thought Bridger, he looks old enough for the Supreme Court. Something's gone wrong. . .

"*Please* go away, everybody," said the lawyer. "There, that's good fellows. Well, Henley. . ." he hesitated. "We're all sorry to hear about Dr. Pilly. But we've—we also—well, the Aaronson child isn't with us any more."

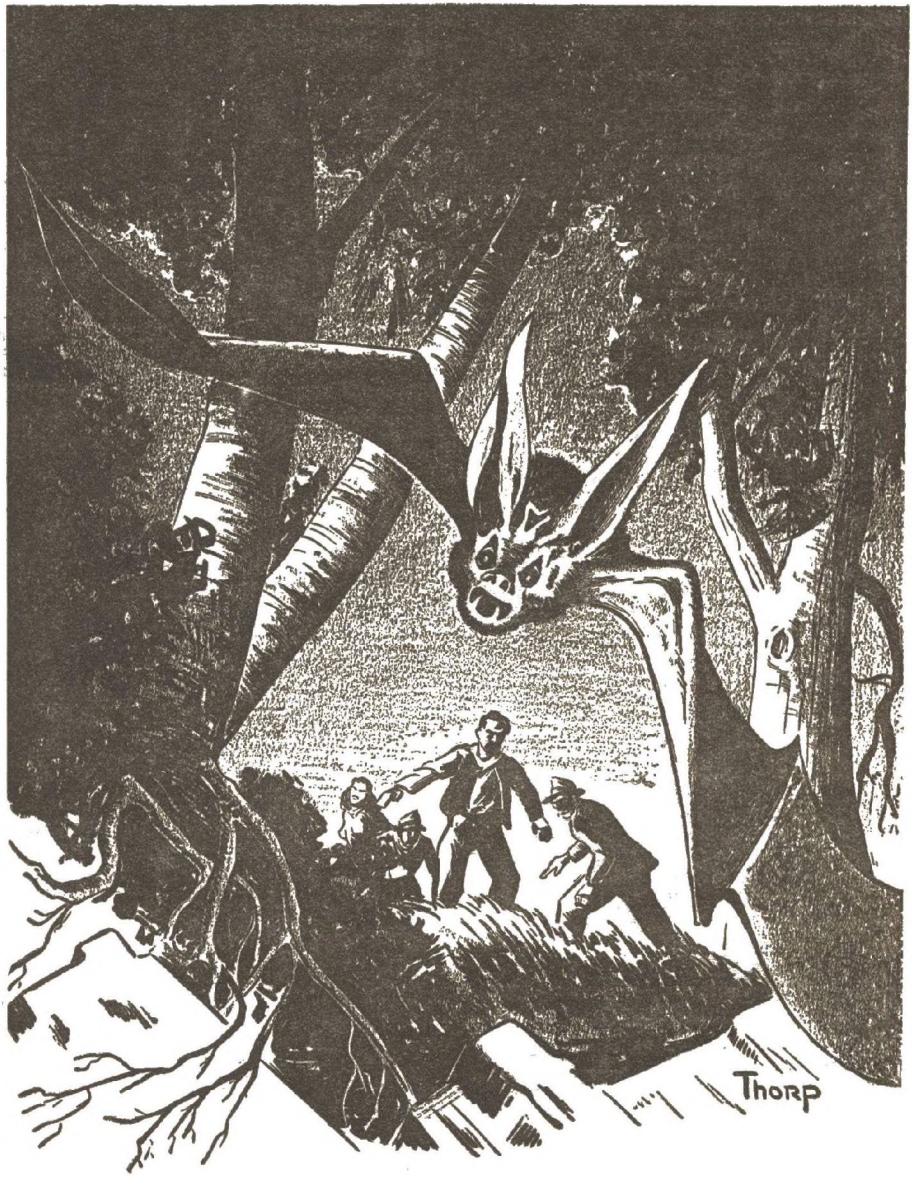
"Dead?"

"Yes." Packard stared at the ground. "You know that barricade that you always insisted on our building? Well, we thought we could get along without it. Some of the crowd did, anyway, and they saved themselves the trouble of cutting firewood by burning it.

"Then the night before last we heard a shriek, and before we could move a big animal shaped like a raccoon—like the one Zbradovski told us about—was making off with the boy. We chased it through the woods until we lost it. I tell you, we hunted all over.

"This morning we found the place, upriver a way, where the brute had made his meal. He'd evidently dipped the little fellow's body in the water, the way raccoons do, before eating him.

"It certainly knocked the spirit out of the Aaronsons. We all felt badly, of



course, but they—well, that kid was their pride. I know that nobody else liked him much, but he wouldn't have been a bad kid with some proper discipline.

"Then—let's see. I tell you, gentlemen, this is the longest five days I ever spent. That afternoon after you went, Dave Toomey and Alice Lloyd — you know, the fresh one — wandered off in the woods. Dave was our new cop, you know.

"WELL, accounts differ as to what happened next. Alice claimed that Dave attempted what the papers call

criminal assault, and Dave says that she led him on, and he was just—ah—striving to please, as it were. Anyway she yelled for help, and we came running, and there was a beautiful battle before we got him down. I took one in the solar plexus myself that knocked all the wind out of me.

"Of course, we had to give Mac back his old job. John Macdonald may be tough, but he's not absolutely stupid, thank God.

"Then Mabel Slemp ran something into her foot, and it got infected. It's getting better now, but I was scared stiff for a while. And Zbradovski's been complaining about a toothache. And Eleanor Hooper caught cold, I think from too much swimming, and she's been running a slight fever. I don't have to tell you gentlemen—" Packard's tired eyes twinkled slightly—"that you get blamed for anything that goes wrong in your administration, whether it's your fault or not.

"But it wasn't all disaster. We finally made some arrows that wouldn't actually fly in a circle and hit the archer. And it turned out that nearly every man has been carrying a bunch of useless keys around in his pockets, so we've been grinding them down to arrow-points. We've made about a dozen.

"One thing that went wrong was when the girls were practicing their shooting about sundown, and a giant bat flew down the river. They'd fired off nine good arrows before I could stop them. None of them came near the bat, of course. I'd been too easy-going with them, and they weren't any help in finding the arrows at all. Charley and I waded and swam half a mile downstream to fish out five.

"Well, gentlemen, that's the story. If you want to go back to the way we were before, you won't find me hard to persuade. After this you stick to the jobs that you know, and I'll tend to those that I'm fitted for."

Not much of an apology, thought Bridger, but then I suppose that for a lawyer to admit he's wrong is harder than faking experimental data would be for me.

There was no difficulty about the change of government. No opposing nominations were made. Mortimer Wilson said, "If friend Julius wants to spend his time worrying about what happened to Miss Hansen's hairbrush, I won't object. I wouldn't have the commissariat job back as a gift. I'll stick to brain-work. How about a little speech, Henley?"

Bridger stood up and cleared his throat. "Thanks a lot, people. I think we'll get along better this time than last. At least, I'm willing to try, and I suppose you are too. We can't afford any more accidents. That means discipline, and everybody suppressing his pet foibles for the good of us all. I'm not talking this way because I think I'm Jehovah, but because we can't survive any other way.

"If you folks won't discipline yourselves and each other, no amount of my talking is going to do any good. We'll simply die of starvation and disease and be eaten by wild animals.

"One more thing. It's come to my attention that Sex has raised its ugly head among us at last. Now, I've nothing against Sex under the proper circumstances. But please remember that none of us is an obstetrician, unless Abner had some experience with livestock when he was a farm boy. I'm not preaching; I'm just pointing out an important little fact, understand? A word to the wise is sufficient."

THE professors, plus Packard, talked late that night. The lawyer said doubtfully, "So you think we ought to cut right across country to this lake of yours, eh? Yes—umm—I see your point, all right. A little variety would do the gang good. . ."

". . . and there's more grass and fewer

trees, so the fauna ought to be richer," added Scherer. "We could learn to do some real hunting. There's no real nourishment in these damn fish. . . Oh, sorry, Nelson, I didn't mean to insult your specialty, but you can see for yourself that the gang are looking pretty peaked. They need meat."

"Well, anyway," said Packard, "We can't start for a few days until the sick ones get well and we accumulate some surplus food. This trip won't be any picnic."

The days passed, and all worked doggedly to keep the food coming in. So far had their civilized inhibitions been dissipated that, when Mary Wilkins produced a cicada stew one evening, nobody even gagged, though there were remarks about "the American Association of Bug-Eaters."

At last the cross-country trek began. They had completed their preparations none too soon, for that section of the river had been largerly depleted of fish, and the birds and small mammals had begun to disappear from the vicinity of the camp as a result of being persistently, if not too effectively, hunted.

It was slow going with the crowd to herd along. On the third day Wilson, who was in the lead, was suddenly confronted by a great feline beast, between a leopard and a tiger in size, with the familiar grey-and-black striping of an ordinary alley-cat.

For two seconds Wilson was torn between the impulses to run and to call "Here, kitty, kitty!"

"If I run," he thought, "It'll be on my back in a flash." So he yelled, "Hey, c'mere quick, help, murder!" and stood his ground, dropping his bundle and gripping his inadequate spear in shaking fists.

Kitty was as surprised as Wilson for an instant, but hunger soon made up its mind—or rather, its instincts—for it. Its upper lip twitched, showing a formidable array of tusks, and it lowered its body almost to the ground and slid snakelike toward its intended luncheon.

Wilson remembered having read somewhere about a man—was he a Lithuanian or something?—who hunted jaguars with a spear in South America. The idea was to get them to spring at you and impale themselves on the spear. The idea seemed silly to Wilson, but he could think of nothing else, so he drove the butt of his weapon into the ground and awaited his fate.

Sure enough, kitty sprang—but not on the spear-point. It landed just short, and with one sweep of a large paw sent the spear gyrating into the branches of a tree.

As it did so, there were shouts from behind. An arrow swished harmlessly through the foliage, and something sharp and heavy drove into the seat of Wilson's pants. He jumped three feet straight up, with a screech that sent the catoid back on its haunches.

As the other men ran up they threw more spears. One stuck in the trunk of a tree; two more went wide of the mark, but the fourth caught the animal where its neck joined its body and stuck there.

Kitty gave a yowl even louder than Wilsons's, and danced round and round on three legs, clawing frantically at the thrashing spear-shaft. It finally came out, and the beast, dismayed by the arrival of overwhelming reinforcements, trotted off into the forest, stopping every few steps to roar back defiance.

WILSON had meanwhile extracted the spear from his own person, and was waving the bloody weapon over his head and demanding at the top of his voice to know what unprintable God-damned canine-descended imbecile had tried to murder him. Macdonald finally cleared his throat apologetically. "Geez, Mort," he said. "I'm sorry, really I am, but I could only see a little of the damn beast between

you and that there tree, and I figured unless I did something quick it'd be all over, so I took a chance. If you hadn't let out such a swell yell, the brute might have jumped you, anyway."

Wilson sputtered a little, but the unusual spectacle of the ex-policeman being polite and conciliatory was so surprising that he soon calmed down enough to accept Macdonald's apologies.

"Well, Emil," said Packard, "I suppose you've got this animal all classified and catalogued already. What are you going to christen it?"

Scherer was standing with a bunch of leaves in his hand. He had long since run out of pipe-tobacco, and had been experimenting with assorted weeds. He turned the leaves over for a few seconds, before answering. "Think I'll call it a Mehitabeloid. We can stand a few references to the classics in our new taxonomy."

Bridger had swung far to the south to avoid the ratoids and parrotoids. The going was a bit harder than the professors had encountered, but in due time the party came to the edge of the promised open country.

"Look down there," said Barnes. "Looks to me like something lying in the grass, and something smaller moving around it. Might be a young one whose mother just died. If it is, it couldn't do us any ha'm."

Bridger squinted in the direction indicated. "Maybe you're right," he said. "We might wander down a little closer and see."

The moving animal, when they got close enough to see, was even larger than a wolf, which it vaguely resembled. It actually looked more like a huge yellow mongrel dog, with a strong strain of German shepherd blood. And it was not mourning the death of a parent; it was tearing at the haunch of the carcass . . . .

It halted its meal abruptly and gave a deep warning bark.

Bridger turned to his party. "Maybe we can drive the thing off," he said, "but there's a chance that it'll show fight I wouldn't risk it, except that we need the hide and meat. Who thinks we ought to try?"

"I dunno about the rest," said Macdonald, "But for a real steak I'd fight a herd of lions." There was an immediate chorus of approval, so Bridger formed his gang into a phalanx, spears in the front rank, and advanced upon the foe.

The carnivore stood over its kill and growled and snarled and barked, first menacingly, then furiously, then frantically. The spears came nearer, and the people roared and screeched. When they were a bare twenty feet off the dogoid began to give ground, foaming and snapping its great jaws with rage. But its courage was not quite up to assaulting twenty-odd strange creatures that did not seem in the least afraid of it. Finally it sat down at the edge of the woods and whined pitifully as it watched them swarm over its dinner.

Scherer was scratching his head. "Well," he growled, "This beats anything I've seen yet. Size of a husky mule, with ears twice as long; rodent teeth, no sign of a tail, and one big nail that's neither a claw nor a hoof on each foot. I don't know where to put it."

"Why not the Leporidae?" asked Enid Hansen.

Scherer looked at her and grinned. "I used to think I was a pretty good mammalogist, little one, but maybe you're a better one. A rabbitoid, of course! I'll be able to tell you more after I get a look at the skull."

Two hours later the red sun was dropping behind the treetops. Bridger, with Zbradovski's assistance, was dissecting the flayed carcass with Morelli's hunting knife, while Scherer stood over them and made entries in his painfully crowded notebook. Aaronson squatted in the grass and worked a patch of hide into the sem-

blance of a pair of moccasins. As he skillfully measured and pared and punched with a pocket-knife he seemed happy for the first time since the death of his child.

"They won't be so good like they was made by a Indian," he explained, "But if you stuff grass in them they will be better than nothink. No, Momma, you can't have them. You know I'd do anything for you, but it wouldn't be fair. We draw lots for them like Dr. Bridger says."

Mrs. Aaronson subsided. Her loss had taken most of the fight out of her. Also, the life they had been leading had reduced her bulk and hardened Aaronson's muscles till they stood more on an equal plane physically. Not that there was reason to believe that there had ever been blows exchanged between them, but Rachel's physical preponderance might have had something to do with her mental domination of her husband.

When meal time arrived, no Neanderthal man squatting on the banks of the Dordogne ever devoured his prey with the enthusiasm with which the people gorged themselves on rabbitoid. "Eat it up, folks," said Bridger; "It'll spoil if we try to keep it very long anyway."

CHAPTER SEVEN

Savages?

THEY reached the lake early the following day. The fishing proved disappointing, and it was decided to start along the lake shore in search of the outlet, without further delay. Fortunately, the hunting was better; several marmot-like animals were killed, and there were full stomachs all round.

Two days later, the camp was aroused before breakfast by wild yells from the fishermen. Tumbling down to the water's edge with spears and clubs, they found Packard and Morelli pointing their rods across the lake and jabbering excitedly.

"You're too late," cried the insurance man. "They just went out of sight around that pernt!"

"What went out of sight?" the chorus demanded.

"A boat, or raft of something with people or something in it!"

"Gwan, you're kiddin'!" "What did they look like?" "How many?" "Were they white men?" "What? What? I can't hear!"

Packard finally made his campaigning voice heard above the din. "We don't know what they were or anything about them, because they were too far away. All we saw was a line in the water that might have been a raft, and on it were some little things that looked like people moving around. It was moving right along, much too fast for a drifting log, and anyway there isn't any wind this morning. They disappeared just before you showed up."

For the rest of the day the alleged raft and its occupants monopolized conversation. Even the discovery, in the course of the afternoon's trek, of a group of huge water-animals disporting and feeding in the shallows, did not drive the other topic from their minds for long. The creatures were, except for their hairiness, rather hippopotamus-like. Scherer classified them tentatively and from a distance as capybaroids, and suggested that *if* a means of killing them could be devised, they would be good eating.

THAT evening, wandering from group to group around the campfire, Bridger came upon the sixth grade teacher deftly at work with a pile of rushes.

"What's that you're doing, Ruth?" he asked. "Making a hat?"

"That's right," the girl answered. "Stick your head down here so I can try it on you."

Bridger obeyed. "Little large for you," she mused, "but I can fix that. I never thought that course in basketmaking that Hansen made me give the little darlings last year would ever be of any use to me."

"Huh? You made this for me?" There was something faintly like alarm in the chemist's voice.

"Yes, your serene highness, and you needn't look at it as if it were going to bite you! I know it isn't a high-grade Panama, but all I have to work with is this grass. Nearly everybody has a hat except you; even Julius has that Daniel Boone effect that he made for himself. Remember, we can't afford to have the chairman getting sunstroke."

"Well, ah, uh, thanks a lot. I appreciate it, but, uh, really Aaronson needs a hat much worse than I do, with that bald head of his. Still, now that it's nearly finished —well, uh, thanks a lot anyway. Excuse me; I've got to see Mort Wilson."

Ruth Pierné watched his retreating back. Gun-shy, she thought, just as I expected. He's thoroughly mature and competent in most respects, but emotionally he's just a little boy who turns red and stammers if you say a kind word to him. Oh well—there's no need to rush matters.

Preparations for departure in the morning were enlivened by Elisabeth Friedman's discovering a nest of hornets, and vice versa. While the party was standing around at the water's edge, watching the chairman and vice-chairman apply blobs of mud to the stricken woman's face and arms, somebody sighted another water craft moving out on the lake. It was exactly as Packard and Morelli had described the thing they had seen—a line on the water, and on it small objects that looked like figures moving about. It was travelling in a direction opposite to that of the other craft, and like it was soon out of sight.

Hearts beat faster in the crowd; they were convinced now that there were thinking beings beside themselves in the vicinity. But what sort of beings? A raft sug-

guested savages, and savages might not be so glad to see strange human faces.

THEN, rounding a wooded point, they came on a sight that filled every heart with a mixture of hope and fear. They were looking at the spillway of an immense dam, from the upstream side. A walk ran across it, connecting two massive square towers, nearly a mile apart, that marked the ends of the dam. As they watched, two hunched figures moved slowly along the walk and disappeared into the farther tower.

H'm, thought Bridger, nobody looks very anxious to make any advances. "Nelson," he said, "you can be our ambassador extraordinary; we may need someone with political experience. You're coming with me to the tower on this end; the rest of you stay out of sight among the trees."

The two men set out at once on a detour that took them through a mass of waist-high brake ferns. Packard cursed the plants fluently as he floundered along. "Sorry," Bridger told him, "but we've got to have some cover handy in case they start shooting at us."

The tower was a rough timber structure with a flat roof. As the men approached, they saw that a wooden apparatus vaguely like a small crane was mounted on the parapet. Moving about it were the same hunched figures that they had seen on the dam.

"They seem infernally busy about something," Parker remarked. "And who in hell would be wearing a fur coat in July? I don't like this. . . . Hey—what's that?"

Above the subdued roar of the water over the spillway, they heard a short, sharp whistle, followed by a sound as of a stick dragged along a picket fence. "Sounds like a ratchet mechanism," Bridger observed. "Maybe they're doing something with that gadget. . . ."

A loud whang interrupted him, and a stone the size of a man's head soared from the tower and thumped into the ferns in front of them. Bridger took out his handkerchief and waved it frantically over his head.

"Hi!" he yelled. "We're friends!"

A second stone came whizzing after the first. Bridger ducked barely in time. The missile grazed his new straw hat and sent it spinning from his head. The envoys needed no further hints. They dove into the ferns and beat a hasty retreat on hands and knees. Several more stones landed near them before they were out of range, as the unknown marksmen searched the brakes for their callers.

They found the party both curious at what they had found, and ribald at the haste of their retreat. The past and present dictators of their little nation had not come off too well in their skirmish with the unknown builders of the dam.

". . . . and then they started throwing rocks at us from a catapult, so we stayed not on the order of our going," Bridger explained, with a strained attempt at levity. "Guess we'd better make a detour and strike the river below the dam. Then we can send somebody upstream to scout around the dam and find out what our fur-wearing friends are up to."

Later he found himself alone with Ruth Pierné. "I'm sorry about your hat, Ruth," he apologized, "but when that second rock parted my hair all I thought of was getting out of sight as quickly as possible."

"Oh, that's all right, Henley—I'll make you another one. It's really no trouble, and rather fun."

"No; I'm going back and get that one," he insisted. "Point of honor, you know. There's really no danger; those brakes make the most perfect cover. A man crawling through them is invisible ten feet away." Damn, he thought; now I'll have to go through with it. You'd think these women would realize that I can't be too friendly with any of them; it's hard enough as it is to keep the crowd from

squaring off for the battle of the sexes. I was pretty short with Marge Trembley yesterday, but she was making such an obvious play for me. Ruth's a bright kid; you'd expect her to have more sense than one of these chorines. Oh, hell—why did I ever leave California. . . .

THEY struck the outlet of the lake about half a mile downstream from the towers. When everybody was busy with his or her appointed task, Bridger summoned Zbradovski and slipped away into the underbrush. Reaching the field of brakes, they followed the trail which the two scouts had beaten down that morning, hunkering down to keep out of sight of the creatures on the dam. It was slow and painful going, and both men were soon driven nearly wild by the clouds of flies and mosquitoes that hovered around their heads. As they neared the tower, they dropped on hands and knees and wormed their way through the ferns along separate paths, lifting their heads cautiously from time to time to reconnoiter.

Forcing his way through the thick vegetation, Bridger thought suddenly: We must be making a rumpus like a herd of elephants! I'll bet they spotted the ferns waving half an hour ago. Oh Lord—why can't we all have brains?

"Sneeze!" he called.

"Yeah?" The collegian was somewhere ahead.

"Take it easy They can see our trail in the ferns" He rose cautiously to his knees, only to flop back with his heart pounding. One of the furclad whatsits was moving along the battlements of the tower, staring in their direction.

"Psst, Chief, here's your lid," came Zbradovski's voice.

"Okay, Sneeze, I'll be right over." Bridger inched along on his belly to where the football player lay, his fuzzy pink face peering through the ferns.

"There he goes again," Bridger murmured. "He has a tail, and that fur is part of him, and he's carrying a sharpened wooden pole for a spear. Civilized animals, by all that's holy!" He inspected the mashed headgear that Zbradovski handed him. "Say, that rock didn't do this famous hat much good." Heaven help me now, he thought; the minute Ruth sees this there'll be no stopping her from making another.

The sentry on the tower had disappeared again. "No use trying to get any closer on this side," Bridger continued. "He'd be hidden by the loom of the tower. Let's sneak around to the down-stream side and try to spot one going across the walk."

The two men found a convenient clump of alders close to the end of the vast timber-and-masonry dam. Finally activity appeared among the dam-dwellers. Several came out of the tower on to the walk, and soon the heads of others, evidently standing on a raft or boat, appeared beyond them.

The boatmen tied up their craft and filed into the tower, each carrying a bundle of something that looked vaguely like slabs of bark.

"Beavers!" Bridger murmured, "and they must weigh two or three hundred pounds apiece. We've seen some screwy things on this camping trip of ours, young man, but a race of civilized, man-sized beavers beats—uff!" A large biting fly had driven its beak into his ankle, and he did not dare move suddenly for fear of attracting the beaveroids' attention. By the time the beavers had disappeared, the fly had had its fill and departed. Bridger expressed some shocking opinions of the whole order of Diptera.

THE next day a raft bearing four of the beaveroids was seen going downstream past the camp, its occupants rowing from a standing position. "That set-

tles it," said Bridger. "If they navigate below the dam, they must have a city or something further down. Our chances of establishing communication may not be much better there than here, but they could hardly be worse. Tomorrow we're off again."

The river ahead of them swept out of sight in a broad curve, around a low hill to the southeast. Bridger decided that time and effort would be saved by cutting across the saddle in back of this knoll. Almost at once they ran into dense underbrush, but at last they won through the witch-hopples and briars into virgin hardwoods, where they could see for hundreds of yards between the huge, lichen-spotted trunks. At noon they came out into a clearing, where a few lone trees rose from the long grass.

Mortimer Wilson, in the lead, let out a piercing yell "Eeyow! Hold everything, everybody!" In the middle of the clearing an armadillo the size of a young rhinoceros was fighting a sharpnosed carnivore the size of a lion. The creature was no cat, from the looks of its feet, which were more like those of a raccoon. It had a bushy tail and small ears, and moved with amazing agility for a beast of its size, leaping in to slash with knife-edged canines and out again before the armadillo could reach it with its claws.

For all its ponderous armor, the latter creature was remarkably quick, also. It wheeled as its attacker slashed at its flank, and countered each snap of those vicious jaws with a round-arm swing of its long fore-claws. The carnivore was already bleeding from a scalp-wound, but apart from a slashed leg the armadillo did not seem at all inconvenienced.

As the people scrambled into their phalanx formation to ward off a possible attack, the combatants sprang apart, every bit as surprised as the human beings. The carnivore studied them with bright, intelligent eyes for a few seconds, then bounded off out of sight into the forest. The armadillo pivoted and trotted off in the opposite direction, the joints of its armor rattling at every step.

"Whew!" cried Barnes. "That was a little too close to suit me. I can remember when No'th America was a nice, safe continent to go gallivantin' around in, execept for a few rattlesnakes and grizzly bears that got peeved if you bothered them."

" 'S all right, Abner, we haven't been eaten yet," boomed Scherer. Then, to himself: "Mmmm, wonder what that carnivore was; looked like a mongoosoid. I'd sure like to get a skull to examine. Those teeth—hey!" He grabbed Bridger's arm. "Look!"

APES—huge, black, hairy apes—were dropping out of the trees on all sides of them. They carried coils of rope and various strange-looking implements whose purpose nobody had time to figure out. One big ape leveled something that looked remotely like a sub-machinegun; the thing made a whirring noise, but evidently was not a death-ray machine, for it appeared to have no harmful effects.

In their excitement the women who had bows let off a volley of arrows. "Hey!" Bridger yelled. "Wait till we find out if they're hostile!" It was too late. All but one of the arrows went wild, but that one struck a particularly villainous-looking anthropoid in the thigh. The ape shrieked, and two others ran forward dragging a huge net with weighted edges, and flung it deftly over the entire crowd. Standing bunched together in their phalanx, they made a perfect target, and before they could begin to untangle themselves, a dozen apes threw their full weight on the net, crushing the people to the ground in a struggling, screaming mass. Then the anthropoids proceeded methodically to pull their prisoners out from under the net, one by one, disarm them, tie their wrists behind them, and slip nooses

around their necks. Those who tried to kick and scratch were gently slapped until they subsided.

When at last they were all secured, the whole crew was towed a quarter of a mile through the woods to where a huge wagon stood among the trees. The wagon contained a number of wooden boxes or chests; these the apes pushed about until they had made two rows from end to end of the vehicle, with narrow spaces between. The prisoners were wedged in on these improvised benches. When they were all in place, the apes tied their ankles to rings on the boxes, and loosened their other bonds slightly.

One of the apes appeared, leading a huge animal whose appearance made the people's spines bristle. The beast vaguely resembled a wild boar, with its disk-shaped snout, cloven hoofs, and thick coat of stiff black hair, but it stood seven or eight feet at the shoulder, and its hair rose in an erect mane over its shoulder-hump, making it look even larger than it was. Two great white tusks, the size of a bison's horns, curled out of its mouth.

The party's alarm at the first sight of this monster subsided somewhat when it became apparent that their captors had no intention of feeding them to it. Instead, they hitched it to the wagon, where it stood docilely enough, snoofing at the ground. One ape climbed into the front seat. Others perched precariously on the sides of the wagon. The driver tapped the pig-animal's back with a long pole, and the wagon started with a lurch. The remaining apes trotted alongside.

NOW that the fear of immediate extinction had subsided, the calmer members of the party began to notice things. The apes talked among themselves in high, penetrating voices, which sounded odd coming from those immense black chests. Their language seemed to be full of throaty consonants, rather like coughing and retching sounds. They took turns riding and trotting, jabbering away all the while.

Ruby Stern leaned over and whispered to Scherer. "What are these things, Emil? Gorillas?"

"I think so," hissed the zoölogist. "At least, I can't think of anything else they could be. They—mmmm—they have longer thumbs and higher skulls than the apes of our time, and of course twentieth century gorillas didn't ordinarily walk erect the way these do. What's that you're mumbling, Dave? Might as well speak up—they don't seem to mind our talking. Huh? How in hell should I know what they're going to do with us? Hey, Henley—has the old think-tank got any ideas about escaping from our little playmates?"

"Nope," replied the chemist from the other end of the wagon. "Peggy here"—he indicated Margaret Kelleigh who had gone into a fit of hysterical weeps—"has been keeping me occupied. Hi, Abner, what do you make of those guns or whatever it is those two Tarzans down there are carrying?"

"Missile weapons of some kind," Barnes replied, wiping his flaming whiskers on his sleeve. "Maybe they work by springs or compressed air. They look sort of like crossbows, only without the bow part. Emil—what would a bunch of African apes be doing in No'th America, anyway?"

"Search me. We'll probably find out eventually. They seem like a pretty intelligent lot of monks."

"Henley," said Ruth Pierné, "do you know any good swear-words that a girl could learn? I thought maybe we could tell these things what we think of them before they learn to understand us."

"Wish my father were here noo," observed small Ann MacIlwraith, whose speech in moments of stress reverted to the burr of her native Glasgow. "He was a mon who could really cur-r-rse!"

"An excellent idea!" snapped the prim, old-maid principal "Mac, you'll have to teach me. I've heard policemen swear before." Macdonald, sitting beside her, seeed ill at ease, but after a few minutes of whispering Miss Hansen's voice rose again. "Now, you say that the word for that is ——, and that you call a man like that a ——. Well, if you really want to make it strong, why not call him a ——— ——— ——— ———?"

Macdonald seemed acutely embarrassed. "Geez, Miss Hansen," he growled. "If you was to talk like that around the station house in my precinct, the boys would put their fingers in their ears!"

CHAPTER EIGHT

The Gorilla-Folk

THE wagon did not seem to be following any road. They dodged around tree-trunks and splashed through streambeds along a route that no sane road-builder would ever choose. Several times the vehicle was canted at an angle that seemed certain to send it toppling over on its helpless freight, but each time a gorilla or two would throw their weight against the lower side and prevent an upset. Twice during the first hour the wheels sank hub-deep in the ooze of a swamp, but each time the apes seized the wheel-spokes, grunted and heaved, and out they came. Branches lashed at the prisoners' faces as they bounced along.

The wagon had springs of some sort, but it bobbed and tossed so that those inside wished it had not.

Late in the afternoon they debouched on a road, rough and stony and overgrown with grass, but a road nevertheless.

Then for a time their travel was rapid and reasonably smooth.

At sunset they halted. The gorillas unhitched the pigoid and tethered it to a

tree. The wagon was pulled off the road, and the people were lifted out and set on the ground, under close guard. Out of the boxes which they had been using as benches, the gorillas produced a variety of utensils and a sack of meal. One of them lit a fire with something that gleamed metallically. Smudges were started to keep off the mosquitoes. A large pot was hung from a branch over the fire, and into it were poured a bucket of water and the contents of the bag. One gorilla stood over it and stirred, while the others pulled up bushes and did miscellaneous chores about the camp.

Finally the pot was removed from the fire, and the apes squatted around it, eating the contents with long-handled wooden spoons. Presently one of them brought the pot over to the human beings, who were squatting miserably in a row by the side of the road, and thrust a spoonful of something in front of Morelli's hungry nose.

Morelli sniffed, took a mouthful, chewed, and made a face "I'll be damned!" he cried. "Oatmeal!"

Packard grinned at him. "Quit beefing and finish your spoonful, Charley. After that damn fish diet I'd eat a raw porcupine, quills and all."

THE crowning indignity of their captivity was still to be visited upon them. When the oatmeal was all gone, one of the gorillas produced four massive collars, each attached to a rope of braided rawhide.

"Oh—oh!" said Wilson. "Now we'll know how a Peke feels being taken for its evening walk."

It was as he had said. While the captives were being promenaded, four at a time, the remaining apes produced huge clay pipes and lit up. The smoke seemed to be that of tobacco, but was far stronger than any tobacco that the human beings had ever known. By this time they had ceased to be astonished at anything. As Parker remarked, "You know, I wouldn't be surprised if one of 'em was to break into a mammy song."

Hardly had he spoken when a gorilla who was sitting with his back against a tree knocked out his pipe, began slapping his chest rhythmically, and, throwing back his head, commenced a weird yodelling that sounded as much like the strains of a Scotch pibroch as anything anyone could remember The other apes lay quietly about the fire, grunting appreciately at infrequent intervals.

By the time the concert had ceased, it was dark, and the last of the captives had had their stroll The gorillas spread pads on the ground and sat on them. They draped blankets over their shoulders, bent their heads forward on their chests, and went to sleep sitting up. Two of them carefully threaded a rope through the bonds of all the human beings, and made the ends fast to a stout tree. They tossed several blankets over the woebegone crew and left them to wriggle as best they could into positions where sleep was possible. One gorilla sat crosslegged on the wagon, his shooting-device handy, an occasional glow from his pipe lighting his wrinkled black face. Gradually, the dog-tired men and women fell asleep.

THE apes were up before sunrise. As they shook the people awake, Franchot moaned, "It's awful. Before we were caught none of you guys would let me sleep, and now these monks are just the same. Where is there any justice in the world?"

The gorillas wasted no time. They gave the people hunks of a kind of nut bread to munch, bundled them into the wagon, hitched up the pigoid, and were off just as the sun appeared over the tree-tops.

After several hours the road leveled out. Gaps appeared in the forest, and by noon they were rolling through gently undulat-

ing country, dotted with small clumps of trees. The wild life was far commoner than it had been in the usually silent forest. Herds of hundreds of small and medium-sized animals could be seen in the distance. A large bear-like creature, eating the tops off flowers by the roadside, left off as the expedition passed and sat up in the characteristic rodent attitude. "Woodchuckoid," was Scherer's verdict.

There were herds of rabbitoids like the one whose carcass the people had appropriated. From a distance they did not look unlike exceptionally shaggy mules. In the late afternoon the party saw a number of large flightless birds—not parrotoids, but something like long-necked, long-legged domestic fowls the size of ostriches. Then Mrs. Aaronson let out a squeal: "Horses! Look, ev'ybody, horses!"

"They do look like horses," said Morelli bitterly. "But if we could see them closer they'd turn out to be overgrown chipmunks or something. That's the hell of this damned world we're in." Presently, however, the animals spied the party and, drawn by curiosity, galloped up and stood in a row, snorting and pawing. They were horses, sure enough—smallish shaggy beasts with large heads, ugly but competent-looking. Bridger wondered why the apes had not domesticated them in place of the less tractable pigs. Suddenly something frightened one of them. He snorted, and the whole herd swung round and galloped off, squealing and kicking.

THE sun wheeled slowly through the sky as the party rumbled on. It disappeared behind the hills, but this time they stopped only long enough for the gorillas to light half a dozen lanterns, which were hung on the wagon, and to dole out a ration of nut bread.

The pigoid trotted steadily on, the wagon rattled, and the lanterns jiggled and swung. About eleven o'clock the halfmoon showed the people a number of flat, cleared areas bordering the road.

"Those are plowed fields, or I'm a son of a dogoid!" said Barnes. "I guess these apes are just a bunch of fa'mers, after all."

"What are those things on the skyline?" asked Morelli. "They look like buildings or something."

"It's too dark to tell much," Miss Hansen said, "but—I have it! They're windmills!"

"Windmills!" cried Wilson. "That must be where they get their power. They can't be so highly civilized if that's all they have. Cripes, those beavers could do better with a waterwheel in their overflow."

"Look up ahead," Alice Lloyd put in. "Isn't that a wall that we're coming to?"

A wall it was. As they drew up under its ramparts a massive gate swung open, and they passed through and down a dirt-surfaced street. They could make out the black shapes of one-story houses on either side, but nothing more. Other lanterns appeared out of the dark, and there was a chatter of conversation between their gorillas and others who ran up.

The wagon made several turns and finally halted. The moon, now low in the sky, was blotted out by clouds. The people could see nothing but a swirl of black fur around the wagon, dimly lit by a score of guttering lanterns.

"Guess this is where we find out what they're going to do with us," Bridger remarked. "At least—hey, Peggy, for God's sake don't go and break down again! Maybe they'll treat us fine. You too, Elisabeth. Take care of her, will you, Sneeze?

The gorillas gathered around the front end of the wagon, and there was a sudden subdued shriek as Marjorie Trembley was lifted out of her place. Bridger could see nothing in the dark-

ness, but presently there came sounds of a scuffle and Marge's voice raised in anger and indignation. Bridger could not help grinning to himself. Evidently they're not hurting her, he thought; just taking a few liberties.

One by one the human beings were removed from the wagon. From the darkness came more sounds of struggle and cries of astonishment and anger. For those who remained, the suspense was unbearable. Macdonald's familiar bellow, "I'll fix you, you son of a—", even brought a snicker from the women.

Bridger was nearly the last. In his turn he was lifted out, untied, and led off into the darkness. He made no resistance but kept alert for any chance to make a break. Then an ape took each of his extremities and laid him on his back with the gingerly firmness of Dr. Ditmars handling a cobra. Two others examined his clothes in the flickering lantern-light. Then they began to remove them.

Holy mackinaw, he thought, is it against the law to wear clothes in this place? He could not help squirming, but the apes merely gripped his wrists and ankles more tightly and continued their stripping. Finally the bio-chemist was hoisted to his feet and peered at from all angles. As if, he thought, I were a new-born baby, and they were a bunch of doctors. There was more chattering among the gorillas, and he was led away again. He heard a creaking sound, and a gate of some kind swung open. The flickering rays of the lanterns showed patches of bare human hide here and there in the darkness. His wrists were freed, the lanterns moved away, and the gate slammed shut behind him.

BRIDGER spoke up: "Anybody hurt? Who-all's here? They seem to want us to die of pneumonia. They took every stitch I had on."

Most of the lanterns were now bobbing off into the darkness. Barnes' voice came from somewhere quite close: "We're in a stockade of some so't, Henley—ouch! Da'n those blood-sucking mosquitoes, anyway!"

"All right, wise guy," growled Toomey, "s'pose you think up a way to get us out of this mess." Other voices spoke in answer: "Pipe down, Dave—nobody could help this." "Maybe Dave's got the right idea!" "I want my clothes!" "What the hell for, sister? Afraid your figure won't stand inspection?" "You shut up, Emil Scherer! You're not so much yourself!"

"Now, now—let's not quarrel," came the lawyer's soothing baritone. "I'm sure that Henley has done everything he could, and he's no better off than we are. Must cooperate, you know. I think we'd better try to catch some sleep, and settle our difficulties as best we can in the morning."

The clamor broke out again: "Sleep with these mosquitoes? And it's getting chilly, too." "That's okay for you, Nelson. You've got fat enough to keep you warm, but I haven't." Eventually, however, the party quieted down. The silent, miserable hours dragged by. Several of the apes had remained near the stockade, smoking and occasionally going the rounds of the walls with their lanterns. Scherer's snores irritated those who envied his ability to sleep whenever he felt so inclined, regardless of his surroundings.

When at last the sky began to turn gray, Bridger saw that the stockade was made of heavy poles, about three inches apart, firmly fastened together above and below. Through them he could see trees, what looked like small houses, and beyond these the wall and the windmills they had noticed from the wagon the previous night.

The sky grew brighter, but there was

no sun, and a light rain began to fall. Bridger looked around at his fellow captives — twenty-five naked, dirty, thoroughly dejected human beings trying to find a mean between comfort and modesty. The rain trickled slowly down their bodies, leaving long streaks in the dirt.

Bridger sneezed twice. "We'll all pass out if we don't get our circulation going," he said. "Come on—Emil's it for tag!"

Presently the whole crew was dodging about the enclosure in pursuit of one another. As the exercise warmed them, their spirits rose: After fifteen minutes Packard dropped out and stood in a corner puffing. Barnes joined him. "This life may be rough on the sensibilities," the lawyer said, "but it's sure great for the figure. My belly's nearly all gone. And look at Mrs. Aaronson run! A month ago she could hardly waddle!"

"Good way of getting rid of inhibitions, too," the archeologist admitted. "Hey—what's that?"

BARNES spun around. The game had stopped. Across the enclosure, a large head with a muzzle bristling with white whiskers and two very bright black eyes was staring at them over the top of the stockade, supported by an apparently endless neck covered with glossy brown fur. As they watched, the apparition yawned, showing four large canine teeth, and then began to bark in such a completely doggish voice that the people, scared as they were, could not help laughing.

"What is it, Henley?" asked Janet Rodriguez.

"Emil can tell you more about it than I can," he replied. "Maybe it's a flesh-eating giraffe. They might have them here, for all I know."

"Is it coming in here?"

"Apparently not. Let's take a look at the thing's body, if it has one."

As he started for the fence, the head slid out of sight. There was a shuffling noise, and it popped up in another place. The chemist found that the poles cut off his view, except for a limited space in front of him. He started toward the place where the thing was again barking, "Arf! Arf! Arf!", but the others shouted "Don't get too close! It might reach down and grab you," and he thought better of it.

For half an hour the thing continued to pop up, bark, and pop down again. Standing back from the fence, the party could make out the outlines of a bulky body close to the ground. Eventually it tired of "arfing" at them and floundered away through the mud of its cage. Rushing to the fence they peered through the poles. They saw that the neck sprouted from a huge trunk that tapered to the rear, supported in turn by four enormous flippers. The neck was not so long as they had expected. The animal must have been standing up against the fence when it barked at them.

"What do you make of it, Emil?" Bridger demanded. "Is it a fur-bearing plesiosaurus?"

"Not quite. I should say it was a specialized kind of sea-lion."

"Fido seems to have a swimmin' pool over there," Macdonald remarked. "They oughta put him in our cage and us in there. We need it worse'n him."

Franchot dramatically clapped his hand to his forehead. "I got it!" he yelled. "We're in the zoo!"

There was a moment of silence as the idea sank in, then the usual babble of voices: "Anyway, we won't starve now . . ."

"Yeah, maybe the gorillas'll come an' throw peanuts to us!" "We must be pretty valuable specimens." "Then why didn't they give us Fido's cage? We're

more important than him, ain't we?" "What are you going to do about it? Write a letter to the papers?" "Look, gang—here comes some more gorillas!"

A great black ape had placed a ladder against the front fence and climbed up with something flat under his arm. He hung the sign—for that was what it obviously was—on the top of the barred fence.

"I know what it says on the other side," said Macdonald. "It says 'Man—species supposed extinct'."

"He's right, Henley," the zoologist observed with a wry grin. "We're labeled now, and I don't doubt that we're the only animals of our kind that anyone has seen for a mighty long time. *Genus Homo*—that's us. All there is left of mankind."

The sign-hanger had disappeared, but the town was beginning to stir. The rain had stopped, and an occasional gorilla appeared in the street that ran in front of the row of cages. One of them soon noted the prisoners and hurried up to stare through the bars. Soon another joined him, and another, until there was a solid wall of shaggy black hair in front of the enclosure. The apes chattered to one another and pointed at the people and at the sign. Their scrutiny made some of the party uneasy. "Makes me remember I ain't got nothing on," Toomey muttered to Macdonald.

"What do you care?" the cop retorted. "They ain't got any either, and they don't mind."

"You don't got to worry, my boy," Aaronson said reprovingly. "You look all right that way. But now you take peoples like me, all bulges in the wrong places—it ain't so good."

"Yeah, I know," Toomey agreed, "but I allus thought these here noodists was nuts, an' now I'm one myself. Anyway, the monkeys got fur and I ain't—leastways, not enough to do any good."

THE ape who had hung the sign, or another like him, now returned, pulling a small cart. He opened the outer gate of the enclosure, entered the little vestibule, closed and carefully locked the outer door, and then opened the inner door and hauled the cart into the cage.

Zbradovski gave a great shout. "Whoopee! Do you see what I see? Apples!" As one the human beings charged toward the cart. The gorilla retreated into the vestibule and slammed the door, but the people ignored him. Although the apples were somewhat small and hard, they found them quite edible. The people were also grateful for the wooden bucket of water in the cart. They were less pleased, upon removing the apples, to come upon a pile of fish.

"Geez," Toomey complained, "are we gonna hafta eat fish the rest of our natural lives?"

"They don't know what we like, and they do know that we eat fish," Barnes pointed out. "They found those bass in our belongings."

"How do you account for apples this time of year, Hemley?"

"I dunno, Emil—hothouses, maybe, or it may be later than we figured. Hey—look at Fido!"

The cart was within a few feet of the side of the cage. Fido had thrust one long flipper between the bars, spooned a fish out of the cart, and was carefully scraping it along the ground toward the fence.

Bridger was the first on his feet. He dashed to the fence and kicked the fish out from under the flipper, which flew up and smacked him on the chin. Rubbing his beard and cursing luridly, he picked up the fish, sloshed it in the bucket, and slapped it down on the pile. Then he and Morelli pulled the cart away from the fence.

Fido's head appeared, and he set up a mournful "Arf! Arf! Arf!" For the

next hour he gallumped up and down, heaving his great body up against the fence and lamenting his loss. When the people had finished the apples and started on the raw fish, his bark changed to a piteous whine.

Finally, when the fish were more than half gone, Wilson's heart melted. "Why not throw him some?" he suggested. "After all, he's our social equal." Before his idea could be put to a democratic vote, the keeper returned and dragged away the cart.

THE morning dragged on, and the people could think of nothing better to do than to play tit-tat-toe in the sand of the enclosure. Zbradovski had just organized a tournament when a group of six gorillas, carrying a variety of baggage, appeared outside the cage. The other apes made way for them and stood in a circle at a respectful distance, watching them.

"There's that tommy-gun again," said Morelli.

"It can't be a gun," Barnes objected. "It might conceivably be a movie camera, from the way that ape is using it. Look at all the little gadgets on the outside."

"Two of them seem to have notebooks," Ruth Pierné pointed out.

"Well I'll be a such-and-such!" exclaimed Wilson. "Will you look at that eyeglass the big feller is screwing into his face! A monkey with a monocle! I s'y, old deah—reminds you of bally old London, downcha know!"

For the rest of the day the six gorillas sat and watched, talking to one another and making marks in their notebooks. In the afternoon Mildred Henry remarked, "If they want to put us in a show, let's give 'em a good one. Come on, girls—you know that last dance routine we were rehearsing back home. Let's give 'em that."

The non-dancers kept time by clapping their hands in unison. The gorillas seemed interested by the spectacle; they put their faces close to the bars and watched every movement, while the one with the movie camera ground away busily.

"Hey, Henley," Morelli whispered. "Wouldn't that act pack the customers into a night club, dressed the way they are?

"You've got a dirty mind, Charley!" the chemist retorted. But he admitted the truth of the observation.

That evening a meal of oatmeal and nut-bread, of the sort with which they had become familar, was slid into the cage. It was entirely welcome after the morning's fish, but some of the people seemed a bit uncertain as to the spirit in which it was provided. "Gee," blurted Mabel Slemp, "I hope they're not just fattening us up to sacrifice us to the

great god What's-his-name, like in Tarzan!"

"For a nice wholesome girl, Mabel," Parker said, "you get some of the gloomiest ideas I ever heard of. Did you ever hear of anybody eating the monkeys in the zoo? Well—that's what we are. Why don't you settle down and scratch for fleas with the rest of us?"

But the thought did nothing to add to their comfort during the long, cold night that followed.

CHAPTER NINE

The Professors' I. Q.

NEXT morning the six gorillas were back. This time the cart of apples remained outside the fence. The gorilla with the monocle took an apple and let himself into the enclosure. The others remained outside holding long poles, watching the people closely for signs of an attack.

Lord Percy, as Wilson had christened him of the eyeglass, advanced slowly, the apple resting on his upturned palm.

"Watch out, Henley," said Enid Hansen. "He may be trying to get you close enough to grab you."

"There's just one way to find out," replied Bridger, walking toward the ape. "He acts as though he were trying to get our confidence. Anyhow, they could grab us all easily enough if they wanted to." He went up to Lord Percy, took the apple, said "Catch!" and tossed it to the crowd.

The gorilla returned whence he had come. He took another apple, placed it on the ground outside the fence about six feet away, and tossed a short pole into the enclosure.

"What on earth . . ." said Alice Lloyd. Margaret Kelleigh picked up the pole and raked in the apple.

"I think I see," she said. "They're giving us mental tests to find out whether we can reason, the way Koehler did with his chimpanzees. I was once supposed to know something about psychology, you know."

"What?" bellowed Macdonald, "They want to see if we can think, when we got three heavyweight professors with us? Oh, haw, that's good, haw haw pfff haw . . ." and he collapsed into helpless laughter in which the others joined.

Next an apple was placed out of reach of the short pole, but a longer pole was placed within reach of it. The teacher had no difficulty in pulling in the longer pole, with which she obtained the apple.

"I say!" said Marie Smythe. "Peggy's getting all the apples. I'd like a try next time."

But when she was given the poles, she found that the next apple was out of reach of the longer pole. She turned to the crowd with a helpless expression.

"Put the end of the short pole in the socket in the end of the long one," said Scherer. When this was done, the apple was easy enough to reach. "Even Koehler's apes had sense enough to get that without being told," he continued in an undertone.

The next act on the program began when Lord Percy re-entered the cage with a bagful of apples and three small boxes painted respectively red, green, and blue. He beckoned to Bridger. With the chemist standing before him, he ostentatiously placed an apple in the red box. Then he turned all three boxes upside down on the sand and shuffled them about rapidly.

The people by now had lost their fear. They gathered around, and Franchot chanted in a loud singsong: "Step right up, ladies and gentlemen, and view this marvelous demonstration of legerdemain! The hand is quicker than the eye, folks! Which shell is the little pea under? One guess, ladies and gents! Ah,

right the first time, Doctor Bridger! You win this beautiful cupid, of genuine unborn plush. Who else would like a try? Mr. Toomey, you've got a quick eye. Watch the little pea, folks! Well, I'll be hornswoggled, you're a wonder, Mr. Toomey. It was the green box, sure enough. Come on, folks, only ten cents a try, one-tenth of a dollar!"

Lord Percy continued his shell-game until the apples were all gone, and withdrew. "Apparently he's satisfied that we can tell red from green," said Margaret Kelleigh. "Wonder what stunt they'll think up for us to do next."

THEY soon learned. The ladder was placed against the outside of the fence; a gorilla climbed up and fastened to it a long pole from which hung a string with an apple on the end, so that the apple dangled about thirteen feet above the ground. Another gorilla lugged three large wooden boxes into the enclosure.

"Who hasn't had an apple yet?" asked Bridger.

"You haven't," said Mildred Henry. "So it's your turn to solve this problem."

As Bridger piled the boxes under the apple, climbed up, and stood on top triumphantly munching, Wilson yelled "Ray for Doc Bridger! Savant Solves Simian Secret!"

The gorillas now went into a huddle, chattering and scratching their heads. "Looks as though they'd run out of puzzles," Zbradovski said. "Why don't they give us something hard, like a calculus problem or a code message to decipher?"

The gorillas finally agreed on their next problem, which consisted simply of removing the boxes and poles from the enclosure and suspending another apple in mid air.

"Let's see," said Franchot. "It's too bad nobody here's an acrobat. But I think I know how we can manage it. Dave and Sneeze, you're the heaviest. Suppose you stand together here. Now Charley, you and Nelson get behind to brace. Emil, you stand here, and boost Henley upon Dave's and Sneeze's shoulders. All ready? Alley, oop!"

But at that precise moment Zbradovski squirmed, and the nascent human pyramid collapsed into a writhing mass of limbs.

"God damn you, Charley," yelled Zbradovski, spitting sand. "You tickled me on purpose!"

"No honest, I swear I didn't!" protested Morelli, as the young man advanced on him. "It was a pure accident!"

The dispute was finally quieted, and the second attempt at getting the apple was successful. As Bridger jumped easily to the ground, Franchot cried, "I have a swell idea! Line up facing the gorillas, everybody!"

Somewhat mystified they complied. "Now, watch me," the hoofer continued, "and do exactly what I do when I give the word. Ready? One, two, three, go!"

In unison, twenty-six thumbs were placed to twenty-six noses, one hundred and four fingers twiddled defiantly, and from twenty-six mouths came a long rich, liquid Bronx cheer.

"Guess that'll give the old boys something to think about!" said Wilson. "Look at 'em scratch their heads now!"

"It looks as if we'd frightened them or something," said Janet Rodriguez.

"No," said Scherer, "They're just withdrawing to compare their ideas and plan the next move."

THE next day the investigators were back again. Lord Percy and a smallish female gorilla entered the cage. Lord Percy had a bag over his shoulder, and the other a notebook.

Lord Percy beckoned to Bridger. Then

he squatted, fumbled in his bag,and produced an egg slightly larger than a hen's egg. He pointed at it, and made a sound like "glk."

Bridger, squatting likewise, gravely answered "Glk."

The gorilla frowned, pointed at his own mouth and then at the egg, and repeated, "Gllk." Then he pointed at Bridger's mouth.

"Maybe he means he wants to share a plate of scrambled eggs," called Wilson.

Bridger waved Wilson to silence. He thought a minute, then pointed at his own mouth and at the egg, and said: "Egg."

Lord Percy showed his teeth in the gorilla equivalent of a grin. "Igg?" he said.

"Not igg.—egg!"

"Ugg?"

"Nope. Egg, egg, egg!"

"Ih—uh—*egg?*"

"Uh huh; that's pretty nearly right. What else have you got?"

The female gorilla was making marks with a kind of pencil in her notebook. "Oh—that's a *fish.*"

"Fith?"

"No, fish!"

"Fiss?"

"Not fiss, *fish!*"

"Fissss?"

Bridger shook his head, and repeated. "Fish," opening his mouth and pointing to his tongue. Lord Percy tried to imitate him, but merely produced a sound like a leaky soda-fountain.

The next item from the bag was an apple. After a few tries, the gorilla was able to say something approximating "epple."

Then Lord Percy, after adjusting his monocle, pointed to his hand. When the word "Hand" had been given, he proceeded with the other parts of his anatomy.

"That's a *thumb. Fingers.* That's an *arm. Head. Eyes. Nose. Mouth. Ear. Neck. Chest.* That's a—up—" Bridger lowered his voice, and his definition was lost to the to the crowd, if its nature was not.

The anatomy lesson finished, the gorilla pointed to his assistant and said something like "Blungblungth."

So? thought Bridger; pleased to meet you, Miss Blungblungth. I'd be glad to recommend you for a secretarial position any day. He pointed to himself and said slowly, "Henley Davenport Bridger!"

"En-lee Dev-un — Dev-un —" Lord Percy became hopelessly bogged down.

"Oh, just call me Bridger. *Bridger!*"

"Blidza?"

"All right, Blidza, if you insist. One handle's as good as another."

The gorilla pointed to Ruth Pierné, who happened to be the nearest of the other people. "Blidza?" he said.

My God no, you hairy dimwit, thought the chemist. Why did you have to point at her, of all people? He shook his head and patiently said "Pierné."

"Pen-nee? Pee-en-nee?" Lord Percy quickly pointed at Ruth and at several other women, and repeated, "Pee-en-nee?"

"Wrong again. Oh, I see what's the matter." Bridger pointed at himself and at several other people. "Men," he said. Then he pointed at Lord Percy, his assistant, and the gorillas outside the bars. "Gorillas."

This misunderstanding cleared up, Bridger pointed at himself and said "Bridger," and then pointed at Lord Percy. The gorilla thought, and then said "T'kluggl."

APPARENTLY introductions are in order, thought Bridger. Feeling that the whole scene could not possibly be real, he went through the entire party: "Richard Nelson Parker—John Joseph

Macdonald—" The secretary scribbled furiously.

T'kluggl, as their examiner-in-chief was evidently named, made sounds to fix Bridger's attention. He then went through the motions of putting something in his mouth and chewing and swallowing it. Then he stared expectantly.

"Eat," said Bridger.

The gorilla got an apple out of his bag and ate it. Then he said slowly, "Opple—epple—eat—T'kluggl," and assumed the expression of a cat that has just consumed a canary.

Bridger grinned at him. "T'kluggl eats apple," he corrected. "Keep it up, old ape, we're doing fine." And he clapped T'kluggl on the shoulder. I really like the brute, he thought; he seems a much decenter sort than a lot of people I've known.

The language lesson continued all day. Bridger gave the name of every object in sight, and demonstrated the meanings of the common verbs stand, sit, lie, walk run, and so forth by acting them out. For some of the more complex ones he called upon other members of the party to stage little acts to illustrate them.

"Say, Henley," put in Franchot. "Since you and he are getting so thick, why don't you hint that we'd like a more civilized diet?"

"Yeah," came another voice, "and how about some beds to sleep on?" "Ask him what they're going to do with us." "Tell him I want my clothes!" "And how about some modern plumbing?"

"One thing at a time, folks," Bridger pleaded. "It'll be a while yet before we can really converse. I'll do the best I can, but we've survived this arrangement so far, and a couple of days more won't kill us."

The chemist's next idea was to indicate by gestures that he wanted a notebook like the secretary's and a pencil. When these had been supplied, he proceeded with the lesson by drawing pictures and giving the appropriate words. The gorilla finally departed, scowling at the notebook and mumbling under his breath.

Next morning, when T'kluggl appeared, Bridger greeted him with "Good morning, T'kluggl."

"Good munning, Blidza," replied the ape. "T'kluggl talk men talk, ess?" He seemed very pleased with himself.

And so the lesson was taken up where it had been left. Bridger found that, whereas nouns signifying common objects and verbs denoting simple actions were easy enough to put across, other parts of speech presented more difficulties, and abstract ideas left them floundering. The word "yesterday", for instance, had them both knotting their foreheads for half an hour before T'kluggl seemed to catch on.

The next day, T'kluggl stopped in the middle of conjugating the verb "make", and cried, "Blidaz! G'llillas come flom Fonmlith. Men come flom?" He paused expectantly.

"You mean, where—do—men—come from? Let's see how'll I explain that? Here, gimme that notebook." And, as the hours passed, he gave T'kluggl a brief account of the party's adventures by a mixture of words, pictures, and gestures.

T'kluggl was delighted when he saw that he was understood. He called the other members of his committee into the cage, and translated the story to them as Bridger proceeded. So absorbed were the apes and human being in what they were doing that nobody noticed that the sun had set until darkness made the chemist's sketches difficult to read.

WHEN T'kluggl appeared with his greeting the next morning Bridger took him to task about their living-con-

ditions; speaking slowly, he said, "T'kluggl, when can we men go out of the cage? We do not like the cage. We want our clothes, and a good place to sleep."

T'kluggl scratched his head. "Men go out of cadze, men lun fass." he observed. "Men lun away fah. G'llillas not like. G'llyillas like men to see len men talk, len w'at men do."

"The men will not run away. Gorillas have food. Men have no food. If gorillas give men food, men will not run," Bridger enunciated patiently.

"Blidza flens to g'llillas. Men, not Blidza, flens to g'llillas? Men go out, fight g'llillas? Not—not—"

"Sure?"

"Yes, sool. G'llillas not sool. Blidza —" he thumbed his notebook— "tellizent men. Men, not Blidza, tellizent?"

Ruth Pierné spoke up unexpectedly: "K'thoolah blong thig ah fun?"

T'kluggl jumped with astonishment, then burst into the anthropoid equivalent of a laugh, "Kee-kee-kee! Velly tellizent woman, Pee-en-nee! Len g'llilla talk by heah talk. S'e say, 'wat faw, not tly len?' Not light, but neah light. Light talk, 'Blong-uh k'thoolah thiggl fun?' Ass kwesson, put 'uh' with fest wed."

"Yes, yes, but how about our clothes, and some beds?"

"Men can have clothes. W'at is, 'bed'?"

"Place to sleep. Here, I'll draw you a picture."

Morelli spoke up, "What's all this conversation about? I can only get what he says one-tenth of the time, and if you two are going to start talking gorilla—"

"Simple enough, Charlie. T'kluggl said he thought I was intelligent, but what about the rest of the crowd? And then Ruth, in gorilla, said 'Why not try to learn?' only she didn't get the grammar just right, and he corrected her. How did you do it, Ruth?"

"Oh, I just listened and memorized a few words that happened to fit in at that point."

"My hat's off to you, only I haven't a hat. You're appointed a committee of one to teach the rest of us gorilla as fast as you learn it. Now, T'kluggl, this is a bed."

T'kluggl looked at the sketch. "No have, bed. G'llillas sleep sit, not sleep lie. But tly get beds. Men len g'llilla talk, g'llillas sool men flens; men not flens, men not go out."

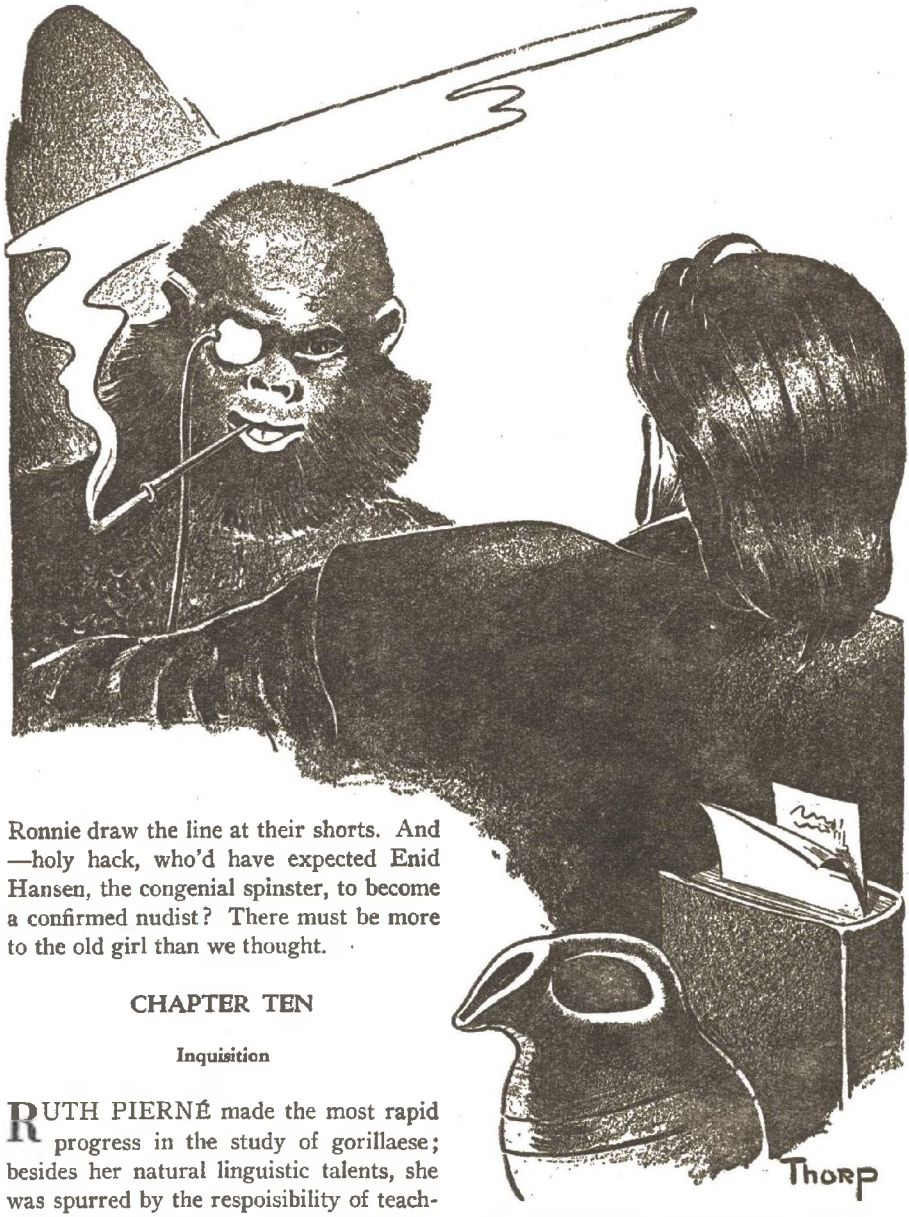
Bridger translated: "He says we can have our clothes, and he'll try to rustle some beds. Meanwhile, if we'll learn their lingo, they'll decide whether we're to be trusted to be turned loose."

"What're they scared of?" growled Macdonald, "Afraid we'll tear 'em apart with our bare hands? I call it a lousy nerve!"

"No use getting sore, Mac. It's as if we'd captured a bunch of talking grizzly bears, and they were trying to assure us that they were strict vegetarians and we needn't worry about what would happen if we let them out to mingle with us."

The gorillas departed, and at sunset returned with a huge bundle of clothes and a number of large sponge-rubber pads, which made passably good surfaces for sleeping. Marjorie Trembley said, "After sleeping on the ground, this feels like a feather-bed."

The next day was hot and humid. While Bridger worked to compile a gorilla vocabulary and grammar, he was amused to observe the effect of five days of compulsory nudism on the party's attitude toward their newly-recovered garments. Evidently a chorus job makes you pretty indifferent toward clothes to begin with he thought, observing that the ladies of the ensemble were without exception dressed exactly as they had been the day before. Elisabeth and the Aaronsons and R. Nelson are determined to be decently clad if the heat kills them. Charley and



Ronnie draw the line at their shorts. And —holy hack, who'd have expected Enid Hansen, the congenial spinster, to become a confirmed nudist? There must be more to the old girl than we thought.

CHAPTER TEN

Inquisition

RUTH PIERNÉ made the most rapid progress in the study of gorillaese; besides her natural linguistic talents, she was spurred by the respoisibility of teaching the others. Bridger was not a linguist, but he wrestled mightily with the ape tongue in an effort to cut down the girl's lead. He had a vague feeling that she was one person whom he did not want to have any advantage over him.

The apes' language had practically no inflections like those of Indo-European languages, but to balance this feature of simplicity it had a complicated assortment of affixes and vowel-changes to indicate not only the type of sentence, but also the

emotion which the speaker wished to convey. The vowel-pattern was simple, with a mere six phonemes but there was a formidable array of glottal and uvular consonants which made the language sound as if the speaker had a fish-bone stuck in his throat.

Between bites of breakfast, Mildred Henry complained, "This life may be all right for you, Henley, but I'm getting bored with it. Nothing to do all day but watch the gorillas go by and study their frightful language. We're not all professors and schoolteachers."

"Yeah," said Zbradovski. "If something doesn't happen soon I think we ought to plan an escape. I've been thinking about it the last few days—I'll tell you later. Here comes the committee of alienists."

T'kluggl entered the cage and spoke in slow, careful gorrillaese: "Blidza, it is time that we began giving your people their freedom, a little at first so that they shall not abuse it. To begin, would you and Pyen-nay like to view our town today?"

Bridger began a halting reply, which got stuck after three words. But Ruth Pierné stepped into the breach, and rattled off the equivalent of "I'm sure we should be delighted," without hesitation.

As they trailed down the street after the gorillas, Ruth spoke to the chemist in English: "Henley, we've got another problem. Two of them, in fact. We have a couple of little strangers on the way."

"Strangers? Oh, I see. Damn! I was afraid that would happen. Who and how?"

"Elizabeth Friedman and Eleanor Hooper. You see, the girls have been coming to me with their troubles."

"Who are the pappas?"

"Elizabeth's is Dave Toomey. Dave wants to do the right thing, as the saying is, but you see he's a Catholic, and he doesn't think it would be right without a priest. I argued with him that there just weren't any more priests, and we'd have to do the best we could without them. I left him trying to think the business out."

"Dave Toomey trying to think about anything is a sight worth seeing! Go on."

"Eleanor wasn't certain; she named several candidates, but seemed to favor Ronnie Franchot. And now Ruby Stern is furious; it seems she's had her eye on Ronnie, and accuses Eleanor of unfair competition."

"Well we'll have to get 'em pair off somehow. Nelson's our magistrate; he can cook up some sort of ritual to make it binding. Any laws that exist now we'll have to make ourselves, unless we want to adopt the gorillas' code."

T'kluggl ushered them into one of the wooden houses that lined the street. "This," he said, "is my house. And this is my wife, P'plookhl. These, darling, are the two intelligent human beings I was telling you about."

BRIDGER and Ruth acknowledged the introduction with the formula they had been taught. The room was devoid of chairs, but there were cushions around the wall, and several short-legged tables whose tops were about eighteen inches from the floor. In one corner stood a wide squat desk surmounted by a huge pile of papers.

"T'kluggl," asked Bridger, "what are those papers? They remind me of papers that often piled a similar piece of furniture which I used in my former life. In my language they were called 'examination papers', and no sooner would one lot be cleared away than another would take its place."

"It is the same with these. I am a teacher of the young here in Dlldah and on these papers they have written out what they are supposed to have learned. Now in your second sentence, the proper word is 'glung', not 'glong', and . . . "

T'kluggl methodically recounted the rest of Bridger's grammatical sins.

Bridger waited till he had finished, and then burst out, "But I was also a teacher of the young! So was Pierné here. And in my spare time I studied the workings of living things, to learn what they were made of. Those papers of yours are the same as the 'examination papers' of which I spoke."

It was T'kluggl's turn to be amazed. "This is a most remarkable event! I pursue the same study, and others related to it. I see that we shall have much to discuss especially about that 'former life' of yours. But my friend do not become excited, because when you do your grammar becomes so bad that I can scarcely understand you."

Bridger discovered that the gorilla writing consisted of a lot of wiggly lines running from top to bottom of the sheets. More like a seismograph record than anything, he thought.

"Whom do you teach?" he asked.

"From the sixth to the twelfth year," T'kluggl replied, "but only certain subjects. These are my assistants—Kha Kha Khahng, who teaches from birth to the sixth year, and Gzigg'lilth, who also teaches from the sixth to the twelfth. After the twelfth year, those who show the most promise go to the central institution at Mm Uth, where our government is located."

"Then this is not your main center?"

"No, this town is the farthest east of all our settlements. This gorilla is Tsugg Oof, our foremost physician and an outstanding historian. He was sent from Mm Uth to investigate you; he arrived but yesterday."

"Was he not here before yesterday? To us you look too much alike to tell."

"Is that a fact? Kee-kee-kee! How strange! We experienced the same difficulty with your people. For many days, the only way I could distinguish you from the other males of your party was by your smaller size, and at first I could only tell that when several of you stood close together."

"It might be easier without this growth of hair on my face."

"Perhaps. I am curious about this strange hair of yours, Blidza. We surmised, from metal pictorial representations found by our archaeologists, that among your species it was the custom to pluck out all the hair except that on the scalp. We knew of no reason for this peculiar habit, except possibly that of getting rid of parasites. But none has been observed to pluck out any hair. Instead, the natural growth of hair seems to be confined to limited areas. Is this a general characteristic of your species?"

"Yes; some races had more and some less hair but, the one to which we belong was almost the hairiest of any. At the time when I lived, it was the custom to cut the hair on the lower part of the face close to the skin, and to cut the hair on the scalp to about the length of a finger. Among the men, that is; the women have no hair on the chin, and some of them allowed their scalp-hair to grow uncut. How much do you know about us, aside from what you have learned from studying my party?"

"Very little, except that your species was once very wide-spread and disappeared quite suddenly. We have found numerous skeletons and implements of stone and bone. We have also found a few small objects of rare inactive metals, apparently ornaments, and from these we have inferred practically all we know of you. We supposed it possible that you also had a knowledge of other forms of metal, but any artifacts of these metals would long since have disappeared."

"Is Tsugg Oof the only physician hereabouts?"

"No; our resident physician, Bubblah Th'kong, would be with us, but he is

occupied at the moment with his professional duties. Now would you and Pyen-nay like to see our factory? It is just outside the town."

AS THEY left the house, T'kluggl continued: "The things that interested us most about your possessions were those little round things with glass on one side, and rotating slivers of metal under the glass, and a lot of tiny metal wheels inside. I fear that Kha Khahng and I ruined one of them taking it apart, before we discovered how they worked. Are we correct in our inference that they were for telling time?"

"Yes, and I only hope that it wasn't mine that you investigated. How do gorillas tell time?"

T'kluggl pulled out of one of the leather cases that dangled from his belt an object that looked like a household thermometer with an unusually fat stem. He held it under Bridger's nose. "You see," he said. "A string of combustible material is placed in the tube every night, after having been lit at the correct point from the previous string. Then one can tell the time by observing how far down the string has burnt. Very simple. It was really those instruments of yours that convinced us that we were wasting our time by giving you elementary intelligence tests. We can produce mechanisms like that in the laboratory but to equip every inhabitant with such an instrument made of rare metals like iron and copper is not to be thought of."

"Iron rare? Why, in our time it was one of the commonest metals! We used immense quantities of it for houses, vehicles, weapons, and everyday implements."

"Indeed? Then iron must have been commoner in your time than it is now. We have some deposits of iron ore, and it is not as rare as gold, for instance, but it is still much too rare to be used in making houses. There was one really good deposit in central Fon-mlith, but the mountains in which it occurred are now in territory controlled by the Pfenmll."

"Controlled by the what?"

"The Pfenmll? Naturally you would not know about them. They are animals of a different species, yet of the same general group to which you and we belong. They have a rudimentary civilization, and are very fierce and love fighting. It was they who drove us from Fon-mlith to this land in a war lasting for centuries. But that is a long story, and must wait until another time."

They passed through the gate in the town wall and climbed the ridge on top of which the windmills stood. The heat was intense. Bridger had started out in his shoes and trousers, feeling vaguely that the leader of the party ought to make some concessions to dignity and conventionality. The trousers were now clammy with sweat, having been originally designed for winter wear.

"Why don't you take your pants off, Henley?" asked Ruth, striding along nonchalantly in a pair of moccasins. "My girlish illusions are gone past recall by now, you know."

"All right, damn it, I will," replied the chemist, suiting the action to the word. He thought, if I didn't she'd make me feel sillier than if I did, so what the hell? Then he thought, hell's fire, is the woman beginning to run me already? Wish I'd left my pants on, but if I put 'em back on now I'd look like a complete idiot. But what do I care whether she thinks I'm an idiot or not? That's just the trouble; I do care. Watch your step, H. D. Bridger; this will never do.

THE factory was a long narrow one-story building, atop which were mounted the windmills. T'kluggl opened a door to admit them and the other gorillas filed in after.

"I regret," said T'kluggl, "that as there is no wind today the large machines are not working. We shall have to make another trip when conditions are more favorable."

As Bridger's eyes became accustomed to the half-light, he found that he was in a room that at first glance might have been any machine-shop in the world he had known. There was the same forest of shafting overhead, the same belts and gears.

As he looked more closely, he observed differences. The shafts and gears were of wood, beautifully made, but still wooden. Some of the smaller gears were of glass. The bases of the machines might easily have been mistaken for iron castings, but a close scrutiny showed Bridger the grain of wood. He was struck by the extraordinarily fine carpentry of these civilized apes. At the other end of the room two gorillas were working on two of the smaller machines which gave out the intermittent buzzings and raspings of all wood-working tools.

T'kluggl said, "Blidza, you were speaking of iron. This is how we use it here." He was bending over a lathe, and Bridger observed that the cutting tool was of real steel, though no other part of the machine was of metal. A drill-press close by had a steel bit but the rest of the machine was a strange agglomeration of wood, porcelain, glass, and polished stone. Bridger climbed up on the lathe for a look at one of the shafts, and saw that the bearings in which it turned were rings of porcelain.

"T'kluggl, are these machines not very fragile being constructed of such weak materials?"

"Fragile? You could smash one with a heavy stone, no doubt, but they are strong enough for our purpose. Of course special training is required to run them. I suppose that you are thinking of the all-iron machines of your former life. But we have not done badly. Here, try to break this."

As he spoke, the gorilla removed a glass set-screw and handed it to Bridger. The chemist laid it on the floor, picked up a wooden handle from a pile of odds and ends, and brought it down on the screw with all his strength. His blow merely drove the screw into the planking so that he had to pry it out with a glass-bladed knife borrowed from one of the other gorillas.

"You may be short on iron," he said, handing back the screw, "but your glass surpasses anything I have ever seen. Our glass was a hard but brittle substance, easily shattered. But tell me, how do you avoid trouble from wear of moving parts?"

T'kluggl picked up a short piece of discarded shafting. "Try cutting this with that knife."

Bridger tried, and found that the knife, which was razor-sharp, would barely scratch the rod. "What sort of wood is this?" he demanded. "In my time, the only woods with such properties were from uncommon trees found in certain hot countries."

"That is ordinary pine, made hard by proper treatment."

"What sort of treatment?"

"Oh we treat it with—" here T'kluggl went off into a string of technical terms which Bridger could not understand. After some attempt to explain the process in simple language, the chemist gathered that it involved boiling in a synthetic plastic among other things.

They wandered down the room until they came to the two workmen, who seemed as interested in the human beings as the latter were in them. T'kluggl explained that they were making parts for a reaping machine.

"Where do you get the power for these machines," Bridger asked, "now that the windmills are not turning."

T'kluggl pointed to the ceiling, from

which was hung a granite block the size of an automabile. "That stone is connected to the machines by gearing; on windy days we use the excess power of the windmills to haul it up, and on calm days we allow it to descend, turning these machines as it does so."

CHAPTER ELEVEN

Gorilla Sociology

WHEN Bridger and Ruth returned to the stockade, they were greeted with a chant of "Teacher's pets! Teacher's pets!" Bridger smiled wearily—they had spent hours telling all they could of human history. "Bet either Charley or Ronnie organized that yell," he said to Ruth. "I hope they each get a good grilling like ours, and see how they like it."

Next morning T'kluggl was on hand early again. He took Bridger aside, and said, "I should like you and Pyen-nay to come to my house again today for another interview. At the same time, Kha Khahng and Gzigg'lilth can interview two of the others. Whom would you suggest?"

"If you want information, I should recommend Barnes there—" he pointed, "—and Scherer. No, it would be better to leave Scherer to keep an eye on the others, and take Hansen instead."

And so it was done. As they walked along, T'kluggl said, "Why not stop in at the museum for a while? It is but a short way from my house."

"Why not?" echoed Bridger, trying to nonchalant. Two pigs, even bigger than T'kluggl's pet, were following him and sniffling at him. When these had satisfied their curiosity, three small gorillas appeared and ran around the group in circles, staring at the human beings from all angles. Bridger barked at one in gorilla, "Hey, little one, why are you not doing your lessons?"

The infant nearly fell over with astonishment, and all three retreated to a safe distance.

The museum was a wooden building much like the others in the town. As they entered, T'kluggl apologized for its small size. "We are but a small settlement of a few hundred individuals; in time perhaps we shall have as fine a museum as any town in the land."

"Do all your towns have museums?"

"Why certainly; did not all yours? How is it possible to teach the young properly without museums?"

T'kluggl pointed out the various exhibits. There were geological specimens, models of machines, wall-charts whose meaning the human beings could only speculate on, and a number of mounted organisms, including about a dozen of the larger mammals. Some of these Bridger recognized.

"This," said their mentor, "is a m'zubbookh; it is the most dangerous animal that we have encountered. It eats anything and fears nothing. They abound far to the south of here, and run in groups; fortunately they seldom stray this far north."

The creature he indicated was a pig-like animal about four feet high. Bridger observed that the beast had lower tusks pointing up, like a boar, but it also had upper tusks that pointed down. I suppose, he thought, that Emil would say that was a branch of the peccary phylum.

"Over here," continued T'kluggl, "are the relics that we have found of former civilizations, and from which we have made our inferences about your species."

Bridger saw a case with a neat array of Indian artifacts, mostly arrowheads. He searched until he came to the relics of the America he had known; when he did, he had a severe jolt. They consisted, all told, of a piece of plate-glass the size of a man's hand; a battered gold watch-case with a few links of gold chain at-

tached; a wedding-ring; a silver dollar on which, although it was worn quite smooth, Bridger made out the date 1887; a gold coin without a date, which he guessed to be of Colonial times; a piece of porcelain from an automobile sparkplug, a cameo with the head of a pretty girl in profile, and a massive coffee-cup of the twentieth-century roadside-diner type.

BRIDGER reflected with a feeling of melancholy on the perishability of the products of his civilization. How come none of the corrosion-proof steel alloys we were so proud of have survived? I suppose in a few million years even they have oxidized. All our splendid achievements—our scientific discoveries—gone with hardly a trace. His eyes smarted curiously. Damn it, was he going to break down before these friends? He hadn't wept since his father died, back in 1924. He saw that Ruth's eyes were moist, too. In his thoughts, the names of the great of science passed—Lavoisier—Darwin—Lobatchevski. Had all their work been in vain? Well, not quite. There were still three fair-to-middling scientists extant, to wit, Emil Scherer, Abner Barnes, and Henley Bridger. He regretted Pilly's death more keenly than ever. Then the thought struck him of the appalling responsibility that rested on those three—to pass on all they could remember of the science of their day. His knees felt weak.

Bridger and Ruth explained these pitiful relics to T'kluggl. On the way to his house, the gorilla said, "Being persons of some learning, you can appreciate the great importance of your arrival here to us. As soon as possible, all of you must put down on paper everything that you remember of your former lives and of the world in which you lived. That includes not only the history and technics of your species, but your own histories, even to the most trivial matters. As soon as you learn our system of writing—no, it would be better if you wrote in your own language; we can translate it later."

"I'm sure we'll be willing enough," said Ruth, "But remember that you promised to give us some information about the history and customs of your people. We're just as curious about you as you are about us, you know." The girl had gotten to the point where the colloquial idioms of the gorilla language held no terrors for her.

They strolled into T'kluggl's house again. "What customs would particularly interest you?" inquired their hairy host.

"Oh, how you are governed, how you regulate the relations between the sexes, and how you rear your young, for instance."

"As for government—" T'kluggl paused and polished his monocle thoughtfully—"the topmost administrative body, if that is what you mean, consists of twenty-eight individuals at Mm Uth elected from a group of 144, who are selected every six years by competitive examination. Our scientists have found that, in these latitudes, and with the volume of work demanded of such a group, twenty-eight is the best number."

"Why 'in these latitudes'?" asked Bridger.

"The best number varies slightly with the mean annual temperature and humidity. In a tropical country, now, the best number would be larger. If we have too many they spend too much time arguing, and if too few they cannot handle the work that devolves upon them.

"The council of twenty-eight elects its own administrative officers. Each town like this one has a group of officers selected by the council from a group nominated by the inhabitants of the town, and these are in turn chosen from a larger member selected by examination. The size of these groups is determined

from the population of the town by a mathematical formula.

"There is now a proposal to replace the formula that we use at present by another which the experts claim will give a better distribution. You know, we have a group of scientists whose principal duty it is to study our machinery of government and devise ways of improving it."

"That sounds like a good idea."

"With us it is a necessity. We learned after many cycles that, if left to ourselves, we would never make any change until the reason for it had become pressing, and the consequent delay often caused us disasters. It is so easy to let things drift. So when our government was reorganized, about four cycles (T'kluggl meant 576 years) ago, provision was made for a special group to insure the timely introduction of changes.

"It is probable that the new formula I spoke of will be given a trial of thirty-six years or thereabouts.

"Our chief officer in this town is Ll Fthung-ee. He visited your enclosure several times during the early days of your—but here he is now."

A STOUT gorilla of advanced years had entered the room. When introductions had been made, the elderly one sat down and lighted his pipe. "I heard your last remark, T'kluggl" he said grinning. "The reason I have not been to see these people since is that I got behind in my work so that the papers were piled mountain-high on my desk. Now that I have caught up again I hope to see more of you. Go ahead with your discussion and pay no attention to me."

T'kluggl continued his account of the governmental organization of the gorillas, the mayor interrupting frequently to pour out masses of detail about elections, competitive examinations, spheres of authority, points of law, and so forth. Finally T'kluggl switched the conversation to other planes of gorilla culture. Ruth and Bridger suspected that he did it in the hope of shutting off the gabby old gentleman.

"Mating among us first takes place as soon as the young are old enough to carry out the adult functions," he said. "That is usually about the eleventh year. My first time was in my ninth. P'plookhl is the most satisfactory wife I have ever had; we have been mated on alternate years for twenty-three years now. I shall be sorry when our marriage expires again in about forty days."

"What!" said Ruth. "What do you mean, 'expires'? Couldn't you make it permanent if you wanted to?"

T'kluggl looked shocked. "That would not be proper at all! A marriage contract among us runs for one year; one is not supposed to take the same mate twice in succession. What is the period of marriage among you? Two or three years?"

"It's supposed to be for life, though in many countries it can be set aside when and if the parties come to dislike each other, or if one of them abuses the other."

"Where's my pocketbook? That is a most remarkable custom! We thought that mating for life was confined to certain species of birds."

T'kluggl tried to pump them about human marriage customs, but after a few brief answers they got him back on the subject of his own people. It transpired that the gorillas reached full maturity in the fifteenth year, and that their life-span, barring accidents, was about thirty percent greater than that of human beings. Their education started practically at birth, psychological treatment to establish socially useful reflexes. Full-time education lasted until they were sixteen years old, but all adults were expected to continue part-time education, in gradually decreasing amounts, for about forty years thereafter. Female gorillas ceased to rear

their children when the infants were four years old.

"But," asked Ruth, "don't the mothers object to being deprived of their children at such an early age, to send them away to institutions?"

"Object?" said T'kluggl with mild surprise. "Why should they? Think of the work of having to rear a lot of infants at once, especially as our females work at the same sort of tasks that the males do! Of course, many of them have considerable affection for their offspring, but until the infants are twelve their mothers can see them practically as often as they like. But suppose we adjourn the lecture for the present; it is time to eat. This terrible habit of yours of eating in the middle of the day will make me fat yet. Our normal routine, you know, is one meal on rising, one in the middle of the afternoon, and one just before retiring."

Ruth asked him, "Don't you do any cooking at home?"

"My dear, cooking in the home is all very well under primitive conditions, but I hope that this is a civilized community! Why should P'plookhl and I spend half our time messing around with food, and stink our house up, when our community kitchens produce better food than we could, and deliver it for the asking?"

CHAPTER TWELVE

The G'thong-smith

AFTER lunch Bridger suggested some gorilla history. "First," he said, "I think it would be clearer if you had a—I do not know how you would say it—a picture of the world, with the boundaries of the different lands marked."

"Oh, I understand you; that is easy enough." T'kluggl opened a cabinet against the wall and got out some maps.

The human beings looked at them with puzzled expressions. "Perhaps," said Bridger, "you could indicate to us where we are now. The outlines of the lands seem to have changed since our time; I do not recognize them."

T'kluggl spread one of the maps on the floor and indicated a spot with his finger. "I see," said Bridger. "The eastern coast of the continent has sunk somewhat, and the western coast seems to have risen. I suppose that continent over there on the other map is Fonmlith? Its outline has changed also. We called it Africa. Is that where your civilization arose?"

"Yes; that is where our species lived until 176 years ago, at the time of our great migration. But first I must tell you—" T'kluggl launched into the story of his people, which in many respects paralleled that of the rise of any human civilization. He told of their emergence from savagery, their discovery of tools and fire, their periods of being split up into small states.

As far back as their written records went, they were peaceful agriculturists, without much urge toward conquest.

"We had one period of trouble with the G'thong-smith. They are a species somewhat like us, but smaller, and with very large ears."

"He must mean chimpanzees," Bridger said, aside to Ruth.

"These G'thong-smith inhabited southern Fon-mlith," T'kluggl continued. "They are a very clever lot, but nervous and irresponsible. Their history is full of strange stories of civil war, conspiracy, and murder. But they built some magnificient cities, with huge stone buildings. They look down on us because they say we cannot make pictures and music, and cannot recite long pieces of writing, as beautiful as theirs. Our reply is that a camera makes a more accurate picture than anybody could draw, so why draw pictures, except for special scientific purposes, as long as we have cameras? Somehow that argument merely makes them more conceited than ever.

"Also their music, while no doubt beautiful to them, sounds to us like a lot of wildcats fighting. It is made on an instrument with a cloth bag. One blows in a hollow stick at one end of the bag, and twiddles one's fingers over a lot of little holes, and this weird noise comes out of some other sticks.

"But to get back to history. For a time they sent agents among us, to stir up dissension, and to try to gain power over us. But they never succeeded, except for a few short intervals, because when any dispute arose the gorillas on whom the G'thong-smith were counting always sided with the rest of us. Finally we became tired of these fellows, and many of them were killed. For half a cycle we had a law that any G'thong-smith who entered our territory should be slain on sight.

"They sent an army against us once, but it lost its way, a very easy thing to do in the great forests of central Fonmlith, and many became sick. We hunted back to the borders of their own land; they never tried that again. That was 2793 years ago, and our relations with the G'thong-smith have been amicable since, although we do not greatly like them, nor they us.

"BUT the part of our history that would interest you most is the story of our relations with the Pfenmll. I think I have a picture of one somewhere—" he rummaged in the cabinet, and presently produced a thin book with limp leather covers. The human beings noticed that the bound edge of the book was at the top, like a secretary's notebook.

"Let me see—here we are; this is a picture of an individual belonging to the most numerous species of the Pfenmll."

"It looks like a baboon to me," said Ruth.

"Sure enough," agreed Bridger. "About how big were these things, T'kluggl?"

"An adult male would weigh about the same as a gorilla, or a little less. Of course, I have never seen one in the flesh, as I was born in this country.

"There are several species of these beasts, and at one time small groups of them appear to have been scattered all over Fon-mlith. As far back as our written history goes, which is about 26,000 years, there are records of raids by small group of Pfenmll, sometimes coming from the West, but usually from the North and East. They would pass through our country at great speed, killing and robbing as they went, and disappearing before effectiveness could be organized.

"In time our governmental organization became sufficiently developed so that we had a standing army. After that the raids were less frequent, but the Pfenmll came in larger numbers when they did come. About 12,000 years ago there was a terrible invasion, and most of our land was laid waste, but we recovered from it eventually.

"During this time, the Pfenmll either copied from us or developed independently some of the practices of civilization. They had a speech of their own, and they learned the use of fire and tools. They developed considerable skill in metal-working, although as I have told you metals are not as common as they seem to have been in your day. The Pfenmll used them almost entirely for weapons.

"About 600 years ago we learned that they, too, were experimenting with large governmental units. They have a fantastic system of government. When one of them, by the use of force and fraud, has attained the supreme power, he rules until he dies, when his eldest male offspring becomes his successor automatically. That is, if he is not murdered. This strange method of selecting rulers is one reason why we doubt whether they will ever become really civilized. We gorillas may have done many unwise things in our his-

tory, but we have never left the choice of our officers to the caprices of heredity.

"Anyway, all the Pfenmll of the species having red-and-black faces, who are the fiercest of all, became united under a single individual. As time passed we heard that this individual was extending his power over other races.

"We ought probably at this time to have sent expeditions against the Pfenmll and tried to exterminate them. But we did nothing and hoped for the best. When they came, their numbers were far greater than ours. Step by step we were pushed west toward the ocean. We had one or two respites, when the Pfenmll fought among themselves, but eventually they drove what was left of us to the western shores of Fon-mlith.

"We should probably have been wiped out, except that there is another species of primates—"

"WHAT!" exclaimed Ruth and Bridger. "How many more are there?"

"No more with well-developed cultures. These of which I speak come from the southern part of the eastern continent, and early in their history they learned to build great ships. They have a tradition that they originally lived on islands which slowly sank, so that they had to become seafaring to save themselves. Now they have small settlements in widely separated parts of the world, and travel the oceans in their ships. They are about our size but have little body hair, and what they have is a bright red."

Bridger whispered, "They must be orang-utans. Holy Moses!"

"These Toof K'thll, as we call them, agreed to carry us over to this continent, though we had to pay them most of our commodities for their services. And so, here we are.

"I forgot to mention that we tried to get help from the G'thong-smith. But they had built themselves a great wall across the southern part of the continent, and they sat safely behind it and declined to have anything to do with us. Shortly before the migration they offered a restricted area in their country to us, but we preferred to take our chances here and, as our history has shown, we were probably right."

They discussed the history of the gorillas for a little longer, and then Bridger said, "It will be very nice to be given our freedom, T'kluggl, but where are we to live? You know, we were accustomed to houses in our former life, and this sleeping in the open has been a most uncomfortable experience."

"Mm—that will require some thought," the ape replied. "We in Dlldah are somewhat crowded, as several gorillas moved in recently, and all our dwelling-houses are occupied. We might make room for you temporarily, but it will evidently be necessary to build some new ones. Some of you will have to assist us, as we cannot spare much labor. We have several other projects in view which we intend to finish before winter—a new hothouse, an addition to the factory, and other things."

"Oh, I am sure that we can work out some satisfactory arrangement. But how about your hothouses? I should like to see them; in my former life I knew something about those used by my people."

"There are many things that you will want to see yet, Blidza. Patience, patience."

BACK at the stockade, the rest of the party did not seem displeased at what Bridger told them of the gorillas' plans for them. "It still don't seem right, a bunch of apes ordering us around," Macdonald objected. "But as long as they got all the chow, there ain't much else we can do."

The next morning the entire band was led forth, and shown to their temporary

lodgings, which consisted mostly of odd corners in assorted gorilla houses.

T'kluggl took Ruth around to the school building, where his assistants were putting the infants through their paces. Gzigg'lilth was working on a small group of ten-year-olds; one of the imps was standing beside the teacher's desk—which was, as might be expected, a bare two feet high—and engaging the rest of the class in a furious argument. Ruth's entry caused an abrupt cessation of the debate, as all the half-grown apes began to fire questions at their instructor and at the embarrassed young lady.

Gzigg'lilth finally got his class going again, but only half-heartedly. It seemed to be a sort of game; the infant standing up was asked questions by the others, and as soon as he hesitated or failed to give a logical answer, he returned to his squatting-place and another stood up.

Gzigg'lilth, Ruth decided watching him, was one of the grimly determined type of teacher.

Kha Khang's class was of younger apes. As he got up to greet his callers, there was a sharp wop! as one of his charges brought a leather-bound book down on the head of another. The resultant uproar failed to disconcert the teacher; he quietly ordered two of his larger pupils to separate the combatants, and went on talking to Ruth and T'kluggl.

Meanwhile, Elisabeth Friedman, David Toomey, and Mortimer Wilson, accompanied by Bridger, were being shown through the factory by a female gorilla named Ksidd Ma-ukh. At the sight of the machinery Toomey suddenly came to life; his sullenness vanished, and he tried to ask their guide questions about the works in his sadly inadequate gorilla. After groping helplessly for the words he wanted, he turned to Bridger. "Listen, Doc," he begged, "can't you tell her what I mean? You know this lingo." Bridger, secretly delighted at seeing the bus-driver show signs of intelligence, spent most of the morning acting as interpreter.

T'kluggl had arranged that they all meet early the following day to consider sites for their new houses. "What sort of night did you spend, John?" Enid Hansen asked Macdonald, who was one of the first to arrive. "I had the best sleep in ages."

"Oh, the bed was okay after what we've been having. But my landlord has a brat about two years old. First it sneaked up behind me and pulled my hair. Then it swiped my shoes and threw 'em at me when I wasn't looking. Then when it got tired of playing it wanted to curl up in my lap and go to sleep."

"You should have been at my place, Mac," Margaret Kelleigh said. "My folks had a half-grown one who just dropped in for an evening's visit, and spent three hours giving me a cross-examination. I don't know their language any too well, but from what I gathered some of its questions were most embarrassing. These apes must learn the facts of life at an early age."

"The kid or pup or whatever you'd call them at my house didn't ask so many questions," said Zbradovski, "but she spent a couple of hours doing stunts on a horizontal bar she'd rigged up. After each one she'd look at me and say, 'Bet you can't do that', or words to that effect. And the worst of it was I couldn't. I tried one, and nearly dislocated a shoulder. My arm's stiff yet. I used to think I was a pretty good athlete, but these monkeys have me licked a mile."

"Don't let them hear you calling them monkeys, Sneeze," put in Scherer. "They might be insulted."

"All right, apes. What's the difference? Not having tails?"

"That's one difference; the others are pretty technical. The shape of their skulls and things like that. By the way, our friends don't seem to have bathtubs."

"There's a pool over on the other side of town," explained Alice Lloyd. "They go over there once in a while and slosh around, but mostly they go in for brushing and combing themselves on a large scale. You should have seen the pair I stayed with—the male's name is Ga-blung Ga-blung or something like that—going over each other with stiff brushes last night. I thought they'd never finish. They asked me if I wanted to be brushed, but I said no, thanks, as politely as I could."

T'KLUGL showed the people the site that had been selected for their houses, outside the wall. "We shall have to extend the wall out around this area anyway," he explained. "This foundation that you see is for a new storehouse; it merely means taking in a larger space. We think that four houses ought to do.

"All your houses seem to be of wood," said Morelli. "How about fire-risk?"

"Thinking of starting an insurance company, Charley?" Wilson inquired in English.

"There will be no fire-risk," T'kluggl answered. "We shall use the same treated wood for them as for our own buildings. It can be charred, but it will not burn."

"Guess that finishes the fire-insurance business," said Morelli. "But maybe I could sell 'em policies against being eaten by wild animals."

"What would you use for money?" asked Wilson.

"That's an idea; just what do they use? T'kluggl"—he dropped back into gorilla—"How do you—what does one of you give another, when the other gives a thing to him?"

"Oh, you mean when one wants something from the stores? Well, each of us has an account at the stores of a certain number of pith-flah. In our language, pith-flah means a kind of nut of which we were very fond back in Fon-mlith. They did not grow in our part of that land, and had to be brought in from the outside. Many cycles ago, we passed them from hand to hand in exchange for all sorts of goods. But finally our scientists bred a variety that would grow in our country, so that the nuts became much commoner. This caused a great mix-up, because we had been accustomed to thinking of a house as worth so many pith-flah, an axe as worth so many, and so forth. Now this was all changed.

"For a while our government tried forbidding the growing of these nuts, but that didn't work. Finally they decided that as by that time we were getting all our supplies from the common storehouses anyway, it would do no harm to continue giving each thing an imaginary value in pith-flah, regardless of how many were in actual existence. So when one does a certain amount of work, or turns certain commodities in to the stores, he is credited with a certain number of these imaginary nuts, and when he takes something out of the stores, a certain number is deducted from his account.

"Of course, this is just a bare outline of the story. If I tried to tell you everything that happened about these miserable nuts it would take days. But that, briefly, is how we come to exchange goods for pith-flah and vice versa, although the only specimens of these nuts that anyone now living has seen are a few in museums.

CHAPTER THIRTEEN

The Pfenmll

THAT afternoon Nelson Packard took Bridger aside. "I've been meaning to speak to you, Henley," he said, "but I haven't had a chance. I got the marriage ceremony all worked out, if you want to announce it before we go home this evening."

"Good idea, Nelson. Hey, folks! I have a little announcement to make. Mr. Packard here is ready, as our magistrate, to perform marriage ceremonies at the drop of a hat; any hat will do. Dave, may I speak to you a minute?"

There was a whispered consultation, and Bridger continued, "The first pair to be united in the bonds of matrimony will be our old friends Elisabeth Friedman and David Toomey. Step up, Elisabeth. I'm sure we all wish you all the happiness in the world. Now if the rest of you will form a circle—"

"I'll say one thing, Henley," Packard murmured. "When you once get an idea you don't waste any time putting it into effect. All right, hrrump, do you, David, take this woman to be your lawful. . ." He went on through a fair rendition of the customary civil ceremony, ending with "In the presence of these witnesses, and under the laws of the human race I now pronounce you man and wife."

"We are the human race, you know," he added seriously.

Leaving the rest still chattering congratulations and sentiment, Packard and Bridger strolled down the street toward their residences. "Hey," came a voice behind them, "Could you do another of those tomorrow?"

"Why Mac!" said Bridger, "Do you mean that you're getting hitched, too? Who's the lucky girl?"

"Enid and I," said Macdonald simply.

"Enid? You mean Miss Hansen? You mean you—you—what—"

"Yeah, Miss Hansen, and you don't have to look at me like that, you two. We fixed it up some time ago. She's only four years older than I am. I admire her, and she seems to think I'm pretty hot stuff. So what about it?"

The two men told him that nothing could make them happier. "Wonder who'll be the next?" Packard mused when the policeman had gone. His eyes travelled to Ruth Pierné, who was deep in conversation with one of the gorillas, then back to Bridger. The chemist felt an unreasoning anger rising within him, but he concealed it as best as he could and was thankful for his beard.

"Well," he said, "from what I've heard, we all know about the Stern-Hooper-Franchot situation. It looks as if Eleanor had the lead. And your friend Charley seems to be getting pretty thick with Mary Wilkins."

"That's a possibility," said Packard with lawyerish caution. "But say, have you realized that we're going to have a surplus of—let me think—about four women? When a few more pairs get eliminated the competition for the remaining men will be something fierce."

"We'll have to do something about it I suppose. We might try some sort of polygamy—just for this generation, of course."

"But that wouldn't be—no, I'm thinking of the laws of the sovereign state of Ohio again. I suppose we can make our own laws to suit the circumstances. Still, that's a pretty radical proposal; almost like adopting the gorilla system."

WORK on the new houses was begun the next day. Bridger drove his crew, realizing that they would show plenty of energy for a while after the boredom of their captivity. Of the human builders, Barnes, Toomey, and Aaronson did most of the work, while the rest fumbled with the unfamiliar tools and gave each other copious advice. Between working on the houses, writing memoirs and speculating on who would next take advantage of Packard's matrimonial offer, everybody was kept fully occupied.

The Hooper-Franchot wedding came off in due course. Bridger, watching, thought, Ronnie looks like a man doing a high dive for the first time. He'd like to get out of it, but he hasn't the nerve to try.

Too bad; Ronnie's a pretty good egg even if he is a lightweight.

Scherer sought the chemist out afterwards. They talked of biology and housebuilding, and then Scherer said, "Well, poor Ronnie's cotched at last. But you might say that he asked for it. I didn't think that Ruby Stern would come, but she never batted an eyelash. She's got guts, that girl. Oh, by the way, Mildred Henry and I are going to get married."

"What? Well, well, congratulations and all that sort of thing. You would pick the best looker of the bunch."

"When are you going to do your duty by the race, Henley? Ruth Pierné, now—"

"Now look here, Emil, you're a good friend of mine, but that's one thing I'd just as lief not be kidded about."

"I'm not kidding; I'm serious. She may not be a dazzling beauty, but she's passably good-looking, and has a swell figure and lots of brains. And she doesn't exactly hate the sight of you."

"I'll grant all you say about her, but the fact remains that I just plain don't want to get married. Running this show is a full-time job, and I won't—I can't afford to get tied up. I couldn't do justice to the girl and the work at the same time."

"Now Henley, that's a lot of bunk and you know— Oh hello, Mort, what's the news?"

"Still planning the destiny of humanity?" said Wilson; "Say! Do you know what the apes got? Hard cider! I already tried some, and it's swell stuff! Oh, yeah, I was supposed to tell you there'll be a concert tonight down at the square, and you're all invited."

The concert started just after sunset. The people sat on the ground among the motionless rows of black apes.

The first performer was a soloist who played an instrument resembling an overgrown semicircular xylophone. He sat inside the semicircle and wallopped the plates of the instrument with a pair of sticks the size of baseball bats. Bridger thought successively of stoves falling downstairs, automobile crashes, and a convention of the blacksmiths' union.

Next came the local glee-club of sixteen gorillas. Their performance was hardly easier on the nerves. The gorillas pounded their chests rhythmically and shrieked in unison. T'kluggl, whispering in Bridger's ear, tried to point out to him the fine points of the rendition, and to explain the extremely complicated rules of harmony which he said were being observed.

But Bridger remembered a trip he had made by boat from Los Angeles to San Francisco, on which there was fog all the way and he had had a stateroom directly under the whistle.

Afterwards food was served in the square, and cider all round. Bridger tried for a while to keep up with T'kluggl's consumption of drinks, but after his second mug he saw that he was hopelessly outclassed. He explained to the ape the unfortunate consequences that would ensue if he continued

Later, as he was getting ready for bed in T'kluggl's house, an approaching noise brought him to the window. In the moonlight he saw four figures walking slowly down the street, arms about each other's shoulders. Something about the fearful racket they were making was vaguely familiar, but he could not place it. Then he observed that the figure on the right was that of a man, and that the other three were gorillas. As they came nearer, he recognized Mortimer Wilson, with his hat on the back of his head. The gorilla next to him might have been the imperturbable Kha Khahng.

The four happened to hit a line of their song at about the same time, and Bridger with mixed emotions, heard: "Soo-eet Ad-aw-lah-een, mah-ee Ad-aw-lah-een!" in an indescribable mixture of human and gorilla English. This adventure hasn't been so bad, he thought, but oh, boy, don't

I wish I could go back a few million years to tell people about it! But maybe it's just as well; I'd get stuck in the boobyhatch sure

T'KLUGGL and Bridger stood on the roof of the tallest house in Dlldah. Two other gorillas were there; one looked through a telescope at a distant hill and spoke to another who made notes. Over head a great semaphore spread its arms. Presently the gorilla with the telescope folded up his instrument and began working the arms of the semaphore. The other gorilla approached T'kluggl and handed him his notebook. "Here," he said, "this concerns you. You might like to read it before I set it up."

T'kluggl ran his eye over the wiggles. "More visitors," he remarked to Bridger. "Tsugg Oof is coming back and bringing some friends with him. One of them is Kik-Kee-Whee, the ambassador of the G'thong-smith."

He handed the notebook back to the other gorilla, and they followed him downstairs to watch him cut stencils for the local newspaper, which came out every six days. T'kluggl handed Bridger a copy of the previous issue; it was a long strip of paper folded together zig-zag like a map. Bridger, although he had been studying the gorillas' written language, could make next to nothing out of it.

The savants from Mm Uth arrived in force the next morning, and the grilling they gave Bridger made his previous one seem mild. He felt as if he were back in college being quizzed for his Ph.D.

The chimpanzee ambassador acknowledged introductions with elaborate politeness. He was a few inches shorter than Bridger, but heavier, and he wore a monocle and a scarlet sash around his middle. When the inquisition started he perched himself on a pile of cushions, leaned back against the wall of T'kluggl's living room, took out of his pouch a telescoped cigarette-holder which pulled out to a length of a yard, inserted a cigarette, lit it, and, holding the affair lightly in his right foot, puffed contentedly. He asked a few questions now and then. When Bridger told how the party were debating the question of polygamy, which was due to be brought to a vote that evening, the gorillas looked solemnly interested but Kik-Kee-Whee almost exploded with mirth. He even dropped his monocle and had to fumble for it among the cushions.

"Might I have one of your honorable smoking-things?" Bridger asked him, using the polite form of address. "We smoked things like that in my former life, and I have wished for one for a long time."

The chimpanzee passed him a handful. Bridger lit one, and found that it had an unpleasantly sweetish taste, but he felt bound to finish it to avoid hurt feelings. "Would it be possible for us to get some pipes like yours, but about half as large?" he asked T'kluggl. "Some of us have them already, and Barnes promised to make us some more, but he hasn't had time."

T'kluggl started to say, "Why yes, I'll speak to—" but Tsugg Oof cut him off. "Please, T'kluggl, you can settle that later. Now, Blidza, will you tell us some more about those payments you call tac-siss?"

Bridger finally broke up the session on the plea that he had to attend to his duties as chairman of the human race. "Very well, if you insist," Tsugg Oof agreed, "but we will go along with you to see how you conduct your meetings."

AS THE meeting opened, Parker took the floor. "Sorry I can't agree with you, Henley," he said, "but I've been thinking seriously about this polygamy proposal, and I'm sure it would set a bad precedent." He went on to explain his reasons. He was an adroit and forceful debater, and Bridger began to see his pro-

posal doomed. Oh, well, he thought, what of it? It's not the kind of thing you can ram down people's throats; if they don't want it they don't want it. But he was somewhat surprised when, after two hours of heated discussion, polygamy carried the day. Bridger observed with a spark of amusement that all the married women—there were now five, counting Mrs. Aaronson, voted against it. Ruth Pierné, too, voted a decided "No!" Strange, he thought; she's seemed pretty broad-minded in most things. But you never can tell about a woman.

Just as they were breaking up, there was a disturbance up the street. The gorillas hurried off into the dark toward the voices, and Bridger and some of the other human beings followed. Through the chatter the chemist could make out the word "Pfenmll" repeated over and over. Pushing through the crowd, he saw that at its center were two gorillas, a male and a female, gasping for breath. The female had dried blood on her face and limbs.

More and more gorillas arrived until most of the adult population of the town was packed into the street. Bridger asked questions on all sides, but could get no answer except the ominous word "Pfenmll."

Finally he sighted Kik-Kee-Whee bobbing about in the crowd, almost hidden among the larger apes. He wormed his way over to him, and asked him for information.

"From what I could gather," replied the chimpanzee in his fluent but oddly accented gorilla, "these two gorillas are the survivors of a party of six that started on a trip east a few days ago. It seems that one of the boats of the Loof K'thll, bringing goods to trade, is overdue, and the gorillas thought they would take the road to the ocean to meet the traders, and incidentally study the birds and flowers and what-not and amuse themselves on the way.

"Well, the Loof K'thll and their boat arrived all right, but they didn't bring goods to trade; they brought an army of Pfenmll. They attacked the party of gorillas, and either killed or captured four of them. Those Loof K'thll are conscienceless rascals; as long as they get paid they'll carry anything or anybody. They don't care if it means the destruction of a civilization."

Bridger remembered T'kluggl's story of the unheroic part played by the chimpanzees in the war in Africa against the baboons, but thought it wise not to mention it. "How many are there?" he asked.

"They don't know yet; certainly hundreds, from what the gorillas say; perhaps thousands. Probably they came in more than one boat."

"How many gorillas are there?"

"Altogether? I don't know; somewhere between twenty and thirty thousand, I believe. Of course that includes infants, so the effective fighting strength will be much less. In a real pinch the females fight beside the males."

That exhausted the ambassador's information. Bridger tried to get more from the gorillas that hurried past him, but they muttered excuses and dashed on. Finally he gathered up as many of his crew as he could find, gave them what news he had, and sent them home. He returned to T'kluggl's house, hoping that his host would come in later. But neither T'kluggl nor P'plookhl were in; he waited for hours and finally fell asleep.

HE WAS awakened next morning by T'kluggl's hurried entrance. "I can't talk to you now, Blidza," said the ape. "I must help to get the army off. Perhaps later I can give you a few minutes."

All that day the human beings were left at loose ends. The gorillas were far too busy to pay them any attention. As the hours passed the undercurrent of excitement began to affect them too. "They

haven't asked us for any help, Henley," Janet Rodriguez observed, "but I think we ought to offer to do what we can. They've been pretty decent to us."

"Good idea," agreed the chemist. "I was going to suggest that myself. Suppose we plan to meet here in the square again at sunset; I'll try to drag the big shots down for some consultation."

He spent the rest of the day observing the preparations of the army, which, it seemed, comprised practically all the adult male population. Besides their shooting-devices, which the new Mrs. Macdonald insisted in calling arbalests, they had quite an assortment of arms—broad-brimmed rubber helmets that looked like firemen's hats, small bucklers, wooden maces with glass spikes, knuckle-dusters, also with spikes of formidable length, quarterstaves with a twenty-pound stone at each end, and glass-bladed knives. Late in the afternoon the column was ready and set out briskly along the road to the east.

Bridger finally cornered T'kluggl, who had remained behind. "Please listen," he said. "My people want to make themselves useful, and I'm sure we can if you'll let us. In a way it's our war too, you know."

"Oh, there will be plenty for you to do," replied the ape; "We shall have to put this town in condition for defense. That means laying in a supply of food and water, surrounding the wall with covered pits, and a lot of other things. Also, the factory will have to be kept going continuously, making arms and ammunition. It might be wise to make a set of small arbalests for your people; ours would be too heavy for them."

Bridger persuaded him to come down to the square, and to bring the mayor and the keeper of stores, the latter a female gorilla named Gliff Thoo.

After some discussion of the tasks that would be assigned the human beings, Zbradovski said, "I think we ought to have an observer with the fighting forces. In case we have to fight later, it would be a great help if we knew something about these Pfenmll. I don't think anyone here knows much about military science, and that would be the quickest way to teach us."

The mayor, Ll Fthung-ee, objected. "That wouldn't do at all; no one of you would have a chance in a fight with the Pfenmll. You would merely get yourselves killed to no good purpose."

But Zbradovski persisted, and Wilson chimed in: "He's right, your honor; you don't quite get our point of view. We ought to have two observers, really, in case something should happen to one . . ." The argument continued until the stout gorilla said, "Very well, but who should it be? Your females could not possibly get around fast enough, nor are they strong enough to stand the exertion of campaigning. Blidza of course will have to stay and manage the rest of you. Bonnz and Toomee are needed for their skill with machinery. If things look serious enough I shall have you all sent back to Mm Uth. Perhaps it would be wiser to send you back immediately . . ."

Zbradovski broke in: "You could send Wilson and me; we seem to have no particular abilities that would make us valuable here." After more argument the "big shots" finally agreed to this proposal.

Just then Macdonald broke in in his halting gorilla, "I have thought—can use pigs—I can—can—" He gave up the struggle, and addressed Bridger in English. "What I'm tryin' to tell 'em," he said, "is that with all those pigs the size of buffaloes, we ought to be able to get up a good mounted force. I was a mounted cop, once, before I got hurt and had to quit, and I could take care of the training and organization, if they'd let me."

Bridger translated. "It's an ambitious idea," T'kluggl said. "It might be good if

it could be worked, but these draft-pigs of ours are not that easy to train. However, our friend here can try his scheme on one or two pigs first."

CHAPTER FOURTEEN

First Blood!

THIRTY hours later, Wilson and Zbradovski were awakened by a large hand shaking them by the shoulder. It was light enough to make out shapes, but it would be at least an hour before sunrise.

"If you two want to see any fighting," growled T'kluggl in their ears, "you'll have to hurry. The army will be moving shortly, and I have to go back to town. Come on; I want to introduce you to the commander."

The two men yawned, rose, and stumbled after the Professor. There was a quiet bustle around them; gorillas cleaning their teeth, rolling up the blankets, looking over their weapons, and pulling on their absurd rubber helmets. There was more to the camp than they had thought when they arrived the preceding night. " 'Bout two hundred of 'em," muttered Wilson. They passed eight pig-wagons, and a cleared space in which some gorillas were inflating a hot-air balloon.

"Good morning, Commander," said T'kluggl suddenly, stopping in front of a gorilla who, in the dim light, seemed no different from the others. "These are Human Being Wil-son and Human Being Spla-doff-skee, who are to accompany you. My friends, this is Mmpl Fethi, Commander of the Dlldah Company." The Commander clapped his hands in greeting, and the men did likewise. "I'll have to leave you now" continued T'kluggl. "Try not to get killed. We like you too much for that."

By the time the men had found their bedding, crammed it into their packs, and woven their way back to the Commander, the two hundred apes had finished striking camp and were lining up. As the men hurried up, Mmpl blew a shrill whistle. An ape standing beside him raised one of a bunch of little colored flags. A score of gorillas broke ranks and ran off into the woods on both sides of the road. "Scouts and flankers," whispered Wilson. Several minutes passed. A second whistle-blast sent a larger group swinging up the road out of sight. Then a third blast, and most of the remaining gorillas stepped out smartly into the road and set off in a double file.

"Follow those!" barked Mmpl. "I have to get the wagons started—I'll be with you presently." The men obediently trudged after the long black column of apes. Behind them came a squeaking and grunting, and seven of the pig-wagons lurched into motion, the huge animals heavily muzzled to discourage bellowing. Two wagons were piled with axes, shovels, ropes, stakes, and various odds and ends. The other five carried what looked like catapults covered with a sort of tarpaulin, and crates that might contain ammunition.

Presently Mmpl hurried up and fell into a walk just ahead of them. He paid them no attention. Instead, he drew a map from one of the numerous pockets of his harness, glanced at it from time to time, and swung along silently. A subordinate ran back to mumble something in his ear; he nodded briefly and kept on walking looking now at the map and now at the road and the woods. His brusque and gloomy mien contrasted with the phlegmatic amiability of the others of his species whom the men had met.

The road wound now through evergreens now through hardwoods and now through huge brake-ferns that almost met over the men's heads. The only sounds were the swish of the gorilla's huge hand-like feet through the short grass in the road-bed, the breathing of the draft-pigs, the occasional squeaking of a wagon, and the rarer sound of some wild animal fleeing through the underbrush.

THEN the sun rose, and the air warmed. An occasional bird sang, and there was a faint buzzing of flies. Still the stony, overgrown road led over one hill after another. The men began to sweat slightly.

For hour after hour they trudged along. The air became oppressively hot, and the flies bothersome. Wilson muttered, "I've got the first real appetite I've had in a month."

At last the woods were left behind, and they entered an area overgrown with long grass. The column halted quite suddenly. There was the sound of arbalests being cocked and the men could see gorillas deploying up ahead. Mmpl turned. "Do you see the big oak on that little rise to our right?" he said. "Crouch down and hurry over there. Don't show your heads above the rise."

The oak stood by itself. When the men arrived, they found three gorillas hoisting themselves and their arbalests into the branches. The men sat down with their backs to the tree.

"Look!" said Zbradovski, "there's the balloon!" Sure enough, over the first ridge they could see the bag, a faint plume of smoke streaming from the vent in its top. "Oh my God" said Wilson "Is that all the farther we've come? I thought we'd be clear to the seashore by now!"

"That's a fair distance" replied Zbradovski. "Six to eight miles, I'd say. Remember, it isn't noon yet."

Presently Mmpl trotted up, and focussed his telescope on the distant balloon. The men could make out a faint point of light below the bag, winking on and off. "Heliograph," muttered Zbradovski. "I know, stupid," answered Wilson. Then two subordinate officers came up, and Mmpl conferred with them in growls, while all three pored over their maps. Mmpl focussed his telescope on a hilltop in a direction opposite to that of the balloon, and again there was a winking gleam—much plainer, because the distance was less by half. The three officers trotted off.

The gorilla army spread out around the oak. A quarter of them trailed over the rise, carrying strange-looking things that seemed to be square wicker shields with poles protruding from their centers. When the shields were laid on the ground in a row, the poles kept them nearly vertical, and the whole made an effective-looking four-foot breastwork. Two more rows of shields were laid at right angles to the first, making three sides of a square, and the rest were piled where they would be handy.

Four of the wagons were hauled into position behind the shields; a fifth was placed at the left end of the front row. It bore an elaborate apparatus. "Looks like a combination spinning-wheel and railroad hand-car," said Wilson. The officers set up a tripod on the crest of the rise, and blinked off heliograph messages alternately to the balloon and to the operator in the distant tree-top. The men at their lunch and wondered when the excitement would begin.

PRESENTLY a slightly more cheerful Mmpl came over and sat down heavily. "I suppose you'd like to know what this is all about," he began. "That's Ah Glugg over in the trees. He's our best scout. A party of Pfenmll passed under him just before he started signalling, so you see he doesn't mind taking chances. He estimates their total number at two or three thousand. They could slaughter us in no time if they were together, but they're not. As they came inland they spread out fanwise, and now they're strung out over a twenty-mile front. It would take them at least two days to congregate, as they don't know the country and aren't following the roads.

"Those we're expecting number about

a hundred, and they ought to pop out of the trees over there"—he pointed— in an hour or two. At least, that's where we hope they'll appear.

"Now you should appreciate why I selected this place to meet them. In front of us, a down slope for a hundred of your yards, then a brook, then an upward slope for three hundred yards and the forest. On our right, a patch of alders. On our left a downward slope, not steep, but long enough to slow down a charge, and laurel bushes at the bottom to make the going hard.

"They might sneak around us, of course, but if they do we'll have to depend on the balloon's seeing them which oughtn't to be difficult in this clear weather. They've been sniped at by our scouts until they're good and angry. I've ordered three-fourths of my company to keep out of sight on the west side of the hill and when the Pfenmll arrive they'll think they have only fifty of us to deal with at most and will probably come a-running.

"Ah Glugg tells me that we've had one casualty so far. A branch cracked under one of his scouts, and the Pfenmll saw him and brought him down with javelins. But As Glugg got even. He made some clear footprints where he knew one of their sentries would find them. The sentry started sniffing along these tracks alone, and presently one of our gorillas dropped on him from a tree and cracked his skull before he could squeak. They hung him up by the tail for the other Pfenmll to find.

"If we can lick these, the Mm Hyah company is playing tag with another bunch north of here, and we might be able to catch them in the rear. If we can keep that up we may be able to hold up their advance quite a little, although eventually they'll annihilate us."

"But," said Wilson, "I thought a message was sent to the Central Council by semaphore telegraph yesterday, asking for reinforcements."

"So it was, but one can see that you never tried to hurry a gorilla. The Council will meet and order somebody to get somebody else to inspect the arsenal and draw up a report and so forth. Then a few days will pass, and the first gorilla will come in and say 'Sorry, Sir, but the termites got into one of the filing cabinets and ate the general mobilization plan, and I can't find a copy anywhere.' The Council will say, 'Dear, dear, how very awkward! Now we shall have to draw up another, and we obviously can't undertake any action until that's done.'

"Well, the months will pass, and they'll they'll get all their reports drawn up and the reservists called out equipped, and drilled. They'll decide after much argument who shall be Chief of Staff, and eventually they'll be ready to drive the Pfenmll back into the ocean. Unfortunately, my dear human beings, we shan't be here to see it."

"Don't you think that pig cavalry might help a little?" asked Wilson in an unhappy voice.

"Perhaps, but I doubt it. It's the wrong kind of country for cavalry, and the pigs have been domesticated only a few generations. Besides the Pfenmll will still outnumber us ten to one, whether we go afoot or pig-back. They can run faster than pigs, too."

"Why should they want to kill us human beings?" asked Zbradovski. "We're not their hereditary enemies or anything."

"How should I know the Pfenmll act the way they do? Because they're Pfenmll, I suppose. Your friend Professor T'kluggl might be able to—listen!"

The men heard a faint rhythmic thumping, somewhere in the hills to the east. "It's they," said Mmpl. "They use drums for signalling." The thumping became a little plainer, and was answered by others to the north and south. "Any more ques-

tions? Quickly, now; I have work to do."

"Yes," said Wilson. "What's that thing over on the farthest left wagon, and what are the gorillas in the tree over our heads supposed to do?"

"That thing is a rapid-fire arabalest, and the gorillas in question are supposed to pick off the hostile officers if they get close enough. Remember my orders, and watch out for javelins." With that Mmpl strode off to direct his troops.

A HALF-MILE away beyond the little brook, some gray creatures had emerged from the forest and were picking their way down the slope. At that distance they looked rather like lions. They were carrying things, and the sun flashed on metal here and there. As the men watched more came out of the woods, until the whole hundred baboons were in sight.

The gorillas had been winding up all the catapults except the queer one on the left, and were now putting what looked like earthen jugs into the breeches. "Stink-bombs," explained Wilson. "T'kluggl told me they're the nearest they've been able to come to a real lethal gas. This stuff has the properties of both tear-gas and vomiting-gas, and has the most horrible smell you ever imagined."

"If there'd been time," Zbradovski replied, "I bet the Chief could have made 'em some real poison gas. Hold everything; they're going to shoot!"

The catapults went off with four resounding thumps. The jugs soared, and smashed on the far side of the brook. Where each landed a sluggish cloud of yellow vapor arose. "About the size of a two-car garage," Zbradovski described it later. The drumming, now loud and near, changed its beat, and the baboons broke into a run. The gorillas had started to rewind the catapults before their first missiles struck; four more jugs followed the first, and then four more. When the baboons reached the stream there was an almost continuous wall of gas from the alders on the right to the laurel beds on the left. One gap was still open, and through this three baboons leaped and galloped at their foes. There was a sharp command, and the men saw the gorillas crouching and aiming their arbalests. As the baboons approached, the men saw that they were demoniac-looking beasts, with bright-colored snouts, little deep-set eyes, and grey manes. Each gripped a lance with one foreleg and ran on the other three legs.

The arbalests were discharged with a rapid klunk-klunk-klunk, and two of the monkeys tumbled head-over-heels. The third galloped back to the brook. He raced up and down looking for an opening in the gas and finally plunged into the alders and disappeared splashing and crashing.

"Don't think they'll try to get at us from that side," said Wilson. "At least, not if I know alders. We could pick 'em off as fast as they could wriggle through."

He was right; the baboon troop set off downstream. Presently a swarm of gray manes were seen bobbing through the laurel bushes in the distance.

"Oh-oh," cried Wilson, "they're going to use the machine-gun, or whatever it it." One gorilla had swung himself into the saddle at the rear on the thing. Two others tugged at the handles of the walking-beam up and down. The flywheel began to revolve slowly at first, then with a shrill whirr. A yard-long clip of darts was placed upright into the breech.

"I get the idea," said Zbradovski. "Ape in the saddle lets in the clutch; inertia of the flywheel cocks and fires the thing, blam-blam-blam. Then when the clip's empty the apes on the handcar dingus pump hard and speed the flywheel up again, and the process is repeated."

"Brilliant!" answered Wilson. "I

suppose you're the only one around here who's had a college education and can figure out things like that. Hold everything; here come the baboons."

THE drumming changed again, and a wave of baboons swept up the slope with shrill barking cries. The men noticed one baboon who stayed back, his head protruding from the laurel; they guessed that he was the drummer. A gorilla shouted something about setting sights to allow for windage. The arbalests klunked; the darts streaked toward the enemy, the sun flashing on their glass heads. The men could not see much at that distance, but one or two baboons seemed to have fallen. "Watch out for javelins, you two!" Mmpl's voice roared. The gorillas were crouching behind their breastwork.

"They surely can't throw javelins that far!" Wilson portested. But the baboons rose on their hind legs and made throwing motions. A shower of six-foot spears rained down on the gorilla position. Zbradovski pulled Wilson behind the oak just as two of the missiles struck on the other side and stuck quivering in the bark. When the men peered around the trunk the baboons were coming on again, but there were gaps in their front line. The arbalests became more effective as the range lessened. An agonized shriek came from one of the gray heaps that now dotted the slope.

Then the gorilla on the rapid-fire arbalest moved, and the machine clattered like a vast and ancient lawnmower. "Lower!" yelled Mmpl. The gorilla in the saddle made some adjustment, and the thing clattered again and swung this way and that, a stream of darts flashing from its muzzle.

The whole front rank of the attackers crumpled. The clattering ceased while the arbalest-crew changed clips. Most of the baboons who had fallen were up again immediately, but the attack came to a halt in a babel of confused yelling. The gorilla infantry kept up a steady fire, and the machine recommenced its infernal racket.

Again the drum-beat changed, and the baboons began picking up their wounded, slinging them over their shoulders, and moving off down the slope. Some limped and dragged themselves with difficulty, and every few steps a dart would find a vital spot and bring one down. A stink-bomb catapulted into their array turned the retreat into a rout.

When they were out of range the noise diminished. One wounded baboon who had been left behind waved a limb feebly. Two of his fellows bounded up the slope toward him. The machine-gunner coolly laid his sights on the prostrate form and, when the rescuers reached him, shot them down with another volley of darts.

MMPL came up to the oak, his broad black face split by a grin. "Not so bad, eh? My grandfather was a famous soldier and student of military—" He broke off, staring past the men, then yelled an order in a voice that made their ears sing. About twenty-five baboons had popped out of the bushes and were coming full tilt toward their unfortified rear. The gorillas, after a few seconds' confusion, snatched up their wicker shields and flung them down in the path of the hostile rush. They had time for one scattering volley of darts, then dropped their arbalests and seized their bucklers and maces.

As the first rank of baboons arrived at the line of shields, they crouched down. The rear rank leaped on to the backs of those in front and took off in soaring parabolas into the midst of the gorillas, lance-points first. There was a scrambling, shrieking moment of close fighting, and then the baboons, hopelessly outnumbered, were streaming back into the shelter of the bushes, carrying their wounded with

them. Presently the whole troop was seen moving swiftly down the stream out of sight.

Mmpl came up, winding a bandage around one forearm. "If we had our pig cavalry right now," he remarked, "we might be able to make an effective pursuit. As it is, it's a waste of time to chase baboons on foot. Come along and take a look at them."

Three gorillas were dead, one with a javelin through his head, the missile having struck him in the eye; one with a lance driven into his chest, and the third with his throat bitten out. There were a number of wounds, most of them not serious. One gorilla looked dead, but it transpired that he had merely been stunned by a blow from a baboon's throwing-stick. "That's how they got such an ungodly range with their javelins" Wilson commented. "The Mayans of the Old Empire had a similar stunt—a stick with a hooked end."

Four baboons, beaten into a red pulp, lay within the breastwork. Others were scattered around the position most of them on the slope up which the main attack had come. A gorilla was systematically bashing in their heads.

Mmpl was counting corpses. "Twenty-one to three isn't doing badly," he remarked. "I don't believe my granfather ever did better. But don't you two human being start promising yourselves long lives yet; remember that all the advantages were on our side, and that under different conditions the casualties might have been the other way around."

CHAPTER FIFTEEN

Macdonald's Cavalry

THERE followed two weeks of quick marching and countermarching, of ambush and raid, as the combined gorilla forces strove to whittle down the overwhelming numbers of their foes while conserving their own as much as possible. The gorillas knew that their only chance lay in keeping the baboons in heavily wooded country, to which their tactics were ill-adapted. Wilson and Zbradovski agreed later that they must have slept some of the time, but all they could remember was a continuous round of exhaustion and terror.

On the third day after the first battle a pig-wagon containing several wounded halted, and a weak voice called to the two men. They were surprised to see that one of the wounded was T'kluggl. He spoke slowly, spitting a little bloody froth now and then. While the gorillas were placing more wounded in the wagon, the professor told how a patrol of which he had been a member had clashed with a baboon patrol several miles to the south. T'kluggl had broken his mace over the head of one baboon, and then had strangled two baboons to death simultaneously, one with each pair of hands. While he was finishing this feat another baboon had run a lance between his ribs. He still seemed cheerful. "What's a punctured lung, anyway?" he demanded, coughing. "An inch more to the right and he'd have hit the aorta, and then I should have really had something to worry about. I'll be back in harness again before the war is over!"

By the end of the second week the baboon army had been concentrated by drum-messages, and was maneuvering to surround the gorillas. The gorillas' scouts discovered a gap in the ring, and their army pushed through it during a heavy thunderstorm. But the baboons saw them; within an hour the drums were echoing through the hills, and the baboons were in full pursuit.

The gorillas lashed their draft-pigs and raced west. Presently they debouched upon an open grassy area. Mmpl and the other officers consulted briefly and decided to risk a break straight across. They

had just reached a clump of trees in the middle when a baboon force appeared out of the woods in front of them. Still other baboons broke through the trees behind them. More appeared to the north. Mmpl gave the command to turn south, and blew his whistle; fifteen seconds later he blew it again to countermand the order; the baboons were swarming south of them also.

The gorillas set to work to dig themselves in with picks and shovels. They went at the job with such prodigious energy that by the time the baboons arrived within shooting-distance a shallow trench had been run around the clump of trees; this was reinforced by the wicker shields, and outside these a line of rope entanglements had been set up. To further strengthen the defenses, some of the gorillas went around with shovels sprinkling broken glass on the ground outside the rope.

The baboons arrived—north, east, south, and west. About a hundred galloped up close, and galloped off again when they received a few darts. The rest sat down in the long grass out of range. It was later learned that the king of the baboons, who had given orders not to begin the attack until he arrived to direct it, had gotten lost in a swamp with his Imperial Guard, and did not arrive until after dark.

THE gorillas worked frantically all night to strengthen their defenses, reinforcing the rope entanglement with "antlers" made by trimming the branches of trees down to points. Morning showed the baboons camped all around the copse at a respectful distance. "They don't seem to care for fighting before breakfast," Bradovski remarked.

"Neither do our bunch," said Wilson, munching into his sandwich. "Personally I'm not sorry."

The sun climbed higher in the sky, and a drum began to beat, answered by another. The baboons were moving about. Soon their standards—poles with bunches of leather strips fastened to their ends—were set up, and the horde began to get into formation. The gorillas hunched lower in their trench while their officers went the rounds giving last-minute instructions.

The drum beat changed from tum-a-tum, tum-a-tum to something like ta-ta-tum-tum-tum, ta-ta-tum-tum-tum. More drums took up the rhythm, until the ground seemed to heave with their thunder. The baboons were moving—first lines of javelin-throwers with bundles of missiles slung over their backs; then great squares of lancers. The sun flashed on their accoutrements. "God, I wish they'd do something," said Wilson. "Watching 'em close in at a slow walk this way gets my nanny."

Ta-ta-tum, ta-ta-tum went the drums, and with a football-crowd roar the baboon hordes charged. Like the first drops of a rainstorm a few javelins fell; then came a shower; then came the baboons. As the gorillas opened fire the first baboons piled up on the ground in squirming heaps; those behind bounded over the bodies and swarmed into the ropes, where they in turn were shot down, so that their bodies festooned the ropes in grotesque attitudes.

The first two ranks of those who charged the machine-arbalest went down like rows of child's blocks; those behind broke and scattered right and left. Then the crew of the machine pushed it to the other end of the camp and repeated their performance. Stink-bombs, where the attack was hottest, sent hundreds of the monkeys reeling away, sneezing and vomiting. A few baboons got through the rope and rushed the trench, but before they could be supported they were either lying dead or were galloping off out of range.

In a few minutes it was over—the baboons had withdrawn, leaving nearly two hundred of their number lying around

the gorilla camp, and the gorillas were tying up javelin-wounds and lighting their pipes as if it was all the day's work.

THREE days later nothing had changed, except that the corpses had begun to stink. The gorillas worked on their fortifications; the baboons went about their baboonish tasks at a safe distance. On the morning of the fourth day the sky, whose overcast condition had made the gorillas' heliographs useless, cleared, and there was a brisk north wind. Daylight showed the baboons clustered around a row of newly-erected haystacks north of the grove. Mmpl sought out the men.

"They're planning a smoke-screen," he said, "so they can get close before we can see to shoot. Here are a couple of arbalest-pistols; I think you're strong enough to work them. Get in under the trees with the wounded, and try to pick off any Pfenmll that get through our line. Don't, whatever you do, get excited and shoot one of us in the back by mistake."

Wilson accepted his weapon glumly. "You know, Sneeze," he said, "sometimes I wish I believed in a future life. The outlook for our present ones isn't so hot."

MACDONALD'S cavalry was lined up outside the village, each trooper standing beside her pig. Macdonald yelled "Mount!" and the apes climbed smartly into their saddles. "By the right flank!" he shouted, and was about to add "March!" when a yell from the observation tower made him look up. The she-gorilla was calling down through a megaphone, "Baboons in the west, coming along the Dlldah road! I think they're a small party!"

Macdonald's brain buzzed furiously. Should he leave the village to take care of itself? Then he thought, better try this gang out on a small party before tackling the main army, even if it does make a delay. So he shouted, "By the left flank, march! Trot!" and the line of pigs rumbled off.

Two miles from the village a lone baboon popped into view around a bend in the road. He turned tail and scampered out of sight, but he was back almost immediately, and behind him came others. Those in front advanced more and more slowly, so that those behind crowded up on them, chattering furiously. They seemed never to have seen draft-pigs before, or at least pigs with gorillas riding them, and they seemed not to like their looks.

But the pigs seemed to find the baboons' looks no more to *their* liking. Macdonald's mount slowed up and zigzagged, and presently turned broadside, blocking the road and squealing with alarm. At the sight of this the baboons came on with a whoop. They paused halfway to let fly their usual volley of javelins; the spears swished through the foliage and thudded into the pigs' hides. A gorilla thumped to the ground; another yelled with pain. Then other sounds were drowned in a roar as of all Nebuchadnezzar's lions.

Macdonald's pig bucked like a steer, almost sending the cop flying and hurled himself at the enemy, his snout almost touching the ground and his little eyes red with hate. The other pigs thundered behind him. The leading baboon tried to swerve, but Macdonald's pig caught him neatly with an upward snap of his great head. The baboon commander sailed high in the air and came down among the rearmost of his troop. Another landed in the crotch of a tree and stayed there. Those which the pigs did not have time to toss into the trees were trampled into shapeless puddles of blood and hair.

Then, suddenly, the remnant of the baboons was fleeing like leaves before the storm. Macdonald's pig, twelve feet of baboon intestine trailing from his left tusk, led the pursuit. The pigs, complete-

ly out of control, spread out to hunt them, and for half an hour barged around the forest, digging baboons out of holes that they tried to hide in and butting trees that they had climbed to shake them loose. Hours passed before all the pigs had been collected again and calmed sufficiently to be manageable.

Shortly after sunrise next morning, a red-eyed ex-policeman halted his column at the top of a rise, dismounted, and peered off to eastward. He yawned and thought, those guys who talk about sleeping in the saddle never tried riding one of these porkers all night. Then he saw a plume of smoke rising above the trees, and to his ears came a sound like a world-series game from a distance.

He scrambled into the saddle. "Fight's on!" he shouted. "Mount! By threes, trot!" And off they went.

They reached the battlefield just as the baboons closed with the gorillas. A few minutes more, and they had pounded through the baboon encampment and were upon the monkey army. Macdonald tried to deploy his company, but the first whiff of baboon had made the pigs unmanageable again, and the column plowed through the foe like a needle through butter.

The first the besieged gorillas knew of the new arrivals was when the baboons, locked in death-struggle with them, suddenly fell back. It looked as though the baboon army had lost its wits, for they had not only given up their attack at the moment of victory, but were swirling about the plain in vast disorder and yelling their heads off. Then, over the baboons, appeared a long line of black shoulder-humps topped by equally black gorillas. As the line moved, baboons flew into the air like popping popcorn.

They passed the grove and emerged on the far side of the baboons without casualties. Macdonald thought, it's no use trying to maneuver these things once the fight's started; you got to get 'em in formation first, and hope to God they all run the same way. He got his company, with difficulty, into a strung-out line, to cut a real swath on their next charge.

As they rolled forward, the baboon array opened and spewed out the Imperial Guard, trotting in smart formation, with the king himself at their head. A pig thundered at the king, who braced his lance and tried to catch it in the eye. The lance-point struck the pig's forehead and the shaft snapped like a toothpick; the next second the king's body, nearly ripped in two, was turning cartwheels over the Guard's heads. In five minutes the entire baboon force, including what was left of the Guard, was sweeping off the field in a huge cloud of dust, with the pigs slashing and trampling in their rear. The pursuit continued over plain and hills, until the company, mounts and riders alike, was too exhausted to continue. Splashed with blood, they returned to the camp at a walk.

CHAPTER SIXTEEN

The Sthog-mith

THE line of wagons creaked slowly toward the familiar windmills of Dlldah. Wilson, sitting beside the driver of the second wagon, leaned back when they came in sight, and told Zbradovski, who, his arm in a sling, was sitting on the floor of the vehicle.

"When I get there, Mort, I'm going to do nothing but sleep for a week. Ouch! Damn it, I wish the driver would learn to dodge rocks in the road."

"Aw, what are you kicking about? Look at what's-his-name, Dzong Goo, back there. He has six bad wounds, and you never hear a peep out of him. All you've got is one little bite."

"Yeah? I'd like to see how—how stoical you'd be with this one little bite. It's easy for you to talk, without a scratch!"

When they arrived at the village, the two men were immediately surrounded by those who had stayed behind. "One at a time, please!" Wilson shouted, waving his arms. "I can't answer sixty questions at once. Yeah, we licked the pants off 'em. Yes, Enid, your husband's all right. Sure, I saw him just before I left. He'll go down to history as a great hero or something. The way he led that charge was something to watch. Yep, a lot of our side got killed; my old drinking-companion Kha Khahng among them. No, I mean yes, there are plenty of baboons left, so the war isn't over. The scouts flashed word to us that they had forded the river and camped on a hill. No, I don't know what they're going to do next. . ."

Bridger sat in the convalescent T'kluggl's living-room, poring over a map. "We shall have to do something soon," T'kluggl said. "They're camped over here, and they've constructed some very respectable fortifications. It's only a matter of time before they come at us again. Some of our fighters raided the camp a few nights back. They shot a few darts into the Pfenmll, but our enemies evidently have gotten their nerve back; they came swarming out, and of course our apes had to run for it.

"One of them noticed a lot of long poles, and took one along. It had a big wad of cotton at one end. We also learned that they have a lot of alcohol with them—why, I don't know. But it suggests that they plan to soak the cotton in alcohol, and use the poles as torches against the pigs. It's a simple idea, but it might work.

"The scouts tell us that the Pfenmll are hard up for food right now. They caught a couple of the Sthog-mith, whose dam is only a mile or two from their camp, and ate them."

Bridger frowned. The beaveroids wouldn't feel very friendly toward the baboons after having two of their number eaten. "I have an idea, T'kluggl," he said. "It might not work, but it might be worth trying. There's no point in getting into another pitched battle if we can help it; those three hundred reinforcements the Council sent us are very nice, but. . ."

T'kluggl listened. When Bridger had finished, he said, "If you can do that, Blidza, you will have succeeded where we have failed for a long time. The Sthog-mith are very unapproachable. Yes, I think they like mountain ash bark the best of any; I'll find out if any grows near here. Meanwhile we had better get word to Mmpl; otherwise he might think we were trying to run his war for him, and he wouldn't like it."

TWO days later Bridger, a bundle of bark over his shoulder, walked slowly toward one end of the great dam. A hundred yards away he shouted to attract attention, put down his bundle, and retreated slowly. Somewhat to his surprise no stones were catapulted at him.

He watched from a distance while a group of beaveroids came out of the tower to examine the bark. As they started back with his offering, he advanced again, holding his hands over his head. They faced about and pointed their wooden pikes at him.

When the pikes were almost touching his chest, he began to speak in what was intended to be a reassuring tone, explaining with gestures that he wanted to go inside the tower, and that his intentions were friendly. At last the beaveroids surrounded him, still holding their pikes ready, and marched him off to their stronghold. Once he stumbled, and instantly four pikepoints jabbed him in the ribs. Suspicious devils, he thought; Lord help me if they turn hostile once we're inside.

Inside the tower, they climbed up and down ladders in semi-darkness until Brid-

ger was completely lost. The place was stifling with the odor of beaver-musk. He was finally pushed into a completely unfurnished room with one small window. Other beavers were there besides his hosts or captors; they talked in a whistling cry which reminded Bridger of coloratura sopranos doing their stuff. He got out a pad and a pencil and went to work.

Hours passed before the beavers finally seemed to catch on to what he was doing, and to understand that a certain arrangement of lines on a paper represented one of their own kind. And I used to think I was a pretty good sketch-artist, too, he thought ruefully. But once they understood him progress was rapid. When he drew a recognizable picture of a baboon there was a hostile movement; when he crumpled the paper and threw it on the floor they relaxed somewhat, and withdrew their pikepoints a few inches. By dark he had finished his task; and the beavers seemed to know what was expected of them.

JOHN MACDONALD sat on his pig by the river-bank. The beast nosed among the plants and occasionally looked up with little nervous squeals. "Keep calm, son, keep calm," murmured the big policeman. He looked at the wide shallows in front of him, and at the vast dam frowning down from his right. Seems like they ought to be along pretty soon, he thought; the drums have been getting louder. Hope my girls keep control of their mounts. Looks like that was pretty good idea, me marrying Enid. Hope the Doc's okay up in the tower. If this doesn't work we'll be in the soup. Like the time back in Pitt when we caught Weepy Martin. That was a scrap. . . Hope the baboons ain't strung out in too long a line. If—ain't those the girls?

Across the river a dozen tiny black things had popped out of the trees, and were splashing across the ford. Macdonald gripped his flag—a pole with one of Franchot's shirts tied to it—and watched the objects grow into draft-pigs ridden by female gorillas. When they were halfway across, the first baboons appeared on the far bank. They held long poles, the ends of which burned brightly. Hah, thought Macdonald, we were right about those torches. Here they come, and the whole damned army right behind them. Wish I knew just how long it takes the beavers to turn on their faucets. Wish I could give the signal before they get too close, but no, the Doc says I got to wait till they're all in the river-bed. Geez, ain't they *ever* gonna stop coming out of the woods? I'll wait till they get to that rock out there, 'bout twenty yards from shore. If I guess wrong on the time it'll be just too bad. . . All right, here goes. . . He swung the flag in an arc over his head, back and forth.

The cavalry detachment had halted on the bank and were facing the oncoming baboons. The foremost baboons hesitated, waiting for more of their army to catch up. Then, over the barks of the baboons and the swish of the spillway, came a groaning sound. A jet of water appeared near the bottom of the dam, and swiftly grew to the diameter of a locomotive; then another; and then the whole bottom of the dam seemed to open. Macdonald knew that inside the towers hundreds of beavers were straining on the ropes that controlled the gates.

He yelled a warning to his gorillas, and kicked his own mount into motion. Looking back he saw the baboon army disappear in one vast, foaming wave; their shrieks sounded like the chirping of birds through the roar. We done it! he thought, and yelled for sheer delight.

Far down the now hugely swollen river a number of little dots, like a swarm of gnats, moved about on the surface. These were the heads of swimming baboons.

Gorillas appeared out of the trees on both banks, taking careful pot-shots at their as yet undrowned enemies.

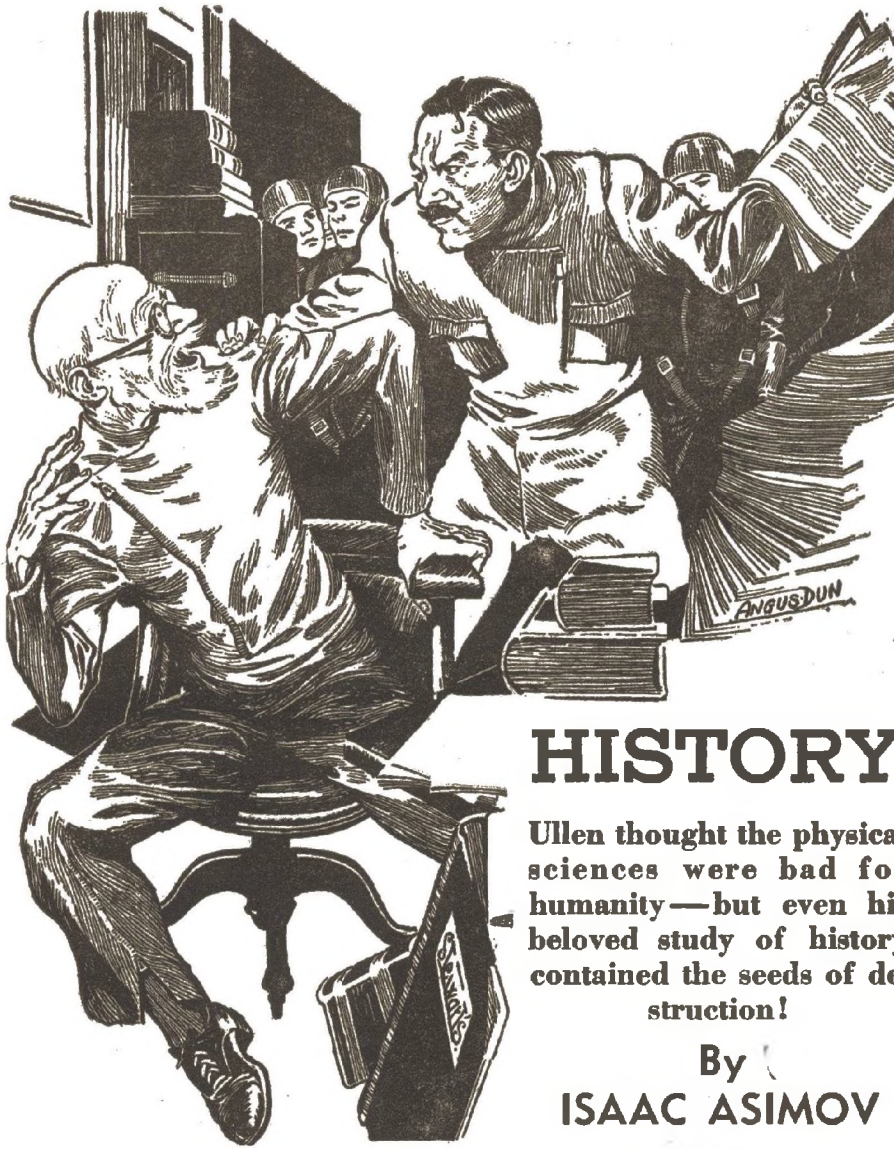
BRIDGER yelled "Hi, Mmpl! Wait a minute!" and ran toward the gorilla.

"Oh, hello, Blidza; I'm glad to see you. We were afraid the Sthog-mith wouldn't let you leave their tower. Everything's going fine; not a single casualty reported, and enough Pfenmll corpses washed up to account for most of the monkeys. A few of them managed to swim ashore, but they didn't give us any serious trouble. . . ."

A week later, a wiry, bearded bio-chemist, clad in clothes from which sun and rain had long since banished most of the color and all of the press, walked toward the tower of the beaveroids' dam. He held his hands over his head, and shouted to attract attention. His cries were interrupted by a loud whang, and a stone the size of a man's head soared from the tower and thumped into the ferns a few yards to his left.

The man paused, and there came the sound as of a stick dragged along a picket fence. Bridger turned and ran until he was safely out of range, and then slowed to a walk. Well, he thought, that's that; I guess they just don't like visitors. I suppose they sent that shot wild on purpose; sort of a friendly warning. Hullo, there's a tree whose leaves have begun to turn. Getting along towards autumn already. In a few weeks the foliage will be worth looking at. . . . Looks as if there was only one thing for me to do now. I suppose the boys'll kid me about how iron-man Bridger has fallen at last. But maybe it won't be so bad. As Emil says, she's passably good-looking, and has lots of brains.

THE END



HISTORY

Ullen thought the physical sciences were bad for humanity—but even his beloved study of history contained the seeds of destruction!

By
ISAAC ASIMOV

ULLEN'S lank arm pushed the stylus carefully and painstakingly across the paper; his near-sighted eyes blinked through thick lenses. The signal light flashed twice before he answered.

He turned a page, and called out, "Is dat you, Johnnie? Come in, please."

He smiled gently, his thin, Martian face alight with pleasure.

"Sit down, Johnnie—but first lower de window-shade. De glare of your great Eard sun is annoying. Ah, dat's good, and now sit down and be very, very quiet for just a little while, because I am busy."

John Brewster shifted a pile of ill-stacked papers and seated himself. He blew the dust from the edges of an open book in the next chair and looked reproachfully on the Martian historian.

"Are you still poking around these musty old things? Don't you get tired?"

"Please, Johnnie," Ullen did not look up, "you will lose de page. Dat book dere is William Stewart's 'Hitlerian Era' and it is very hard to read. So many words he uses which he doesn't explain."

His expression as it focussed upon Johnnie was one of frowning petulance, "*Never* do dey explain deir terms. It is so unscientific. On Mars, before we even start, we we say, 'Dis is a list of all definitions of terms to be used.' How oderwise can people talk sensibly? Hmp! You *crazy* Eardmen."

"Oh, nuts, Ullen—forget it. Why don't you *look* at me. Don't you even notice anything."

The Martian sighed, removed his glasses, cleaned them thoughtfully and carefully replaced them. He stared impersonally at Johnnie, "Well, I dink it is new clothes you are wearing. Is it not so?"

"New clothes! Is *that* all you can say, Ullen? This is a *uniform*. I'm a member of the Home Defense." He rose to his feet, a picture of boyish exuberance.

"What is dis 'Home Defense'?" asked Ullen languidly.

Johnnie gulped and sat down helplessly, "You know, I really think you haven't heard that Earth and Venus have been at war for the last week. I'll bet money you haven't."

"I've been busy." He frowned and pursed his thin, bloodless lips, "On Mars, dere is no war—at least, dere isn't any more. Once, we used to fight, but dat was long ago. Once we were scientists, too, and *dat* was long ago. Now, dere are only a few of us—and we do not fight. Dere is no happiness dat way." He seemed to shake himself, and spoke more briskly, "Tell me, Johnnie, do you know where it is I can find what it means, dis 'national honor.' It holds me back. I can't go furder unless I can understand it."

Johnnie rose to his full height and glittered in the spotless green of the Terrestrial Service. He laughed with fond indulgence, "You're hopeless, Ullen,—you old coot. Aren't you going to wish me luck? I'm hitting space tomorrow."

"Oh, is dere danger?"

There was a squawk of laughter, "Danger? What do you think?"

"Well, den, to seek danger—it is foolish. Why do you do it?"

"You wouldn't understand, Ullen. Just wish me luck and say you hope I come through whole."

"Cer-tain-ly! I don't want *anyone* to die." He slipped his hand into the strong fist held out to him. "Take care of yourself, Johnnie—and wait, before you go, bring me Stewart's book. Everything is so heavy here on Eard. Heavy, heavy,—and de words have no definitions."

He sighed, and was back at his books as Johnnie slipped quietly out of the room.

"Dese barbarous people," he muttered sleepily to himself. "War! Dey dink dat by killing—" His voice died away and merged into a slurred mumble as his eyes followed creeping finger across the page.

" 'From the very moment of the union of the Anglo-Saxon world into a single governmental entity and even as far back as the spring of 1941, it was evident that the doom of—' "

"Dese crazy Eardmen!"

ULLEN LEANT heavily upon his crutches on the steps of the University library and one thin hand shielded his watering eyes from the terrible Earthly sun.

The sky was blue, cloudless,—undisturbed. Yet somewhere up above, beyond the planet's airy blanket, steel-sided ships were veering and sparking in vicious combat. And down upon the city were falling the tiny "Drops of Death," the highly-publicized radioactive bombs that noise-

lessly and inexorably ate out a fifteen foot crater wherever they fell.

The city's population was herding into the shelters and burying themselves inside the deep-set leaden cells. Upstaring, silent, anxious, they streamed past Ullen. Uniformed guards invested some sort of order into the gigantic flight, steering the stragglers and speeding the laggards.

The air was filled with barked orders.

"Hit the shelter, Pop. Better get going. You can't stand there, you know."

Ullen turned to the guard who addressed him and slowly brought his wandering thoughts to bear upon the situation.

"I am sorry, Eardman—but I cannot move very fast on your huge world." He tapped one crutch upon the marble flags beneath. "Dings are so heavy. If I were to crowd in wid de rest, I would be crushed."

He smiled gently down from his lank height, and the guard rubbed a stubby chin, "All right, pop, I can fix that. It *is* tough on you Marsies at that.—Here, hold those crutches up out of the way."

With a heave, he cradled the Martian, "Hold your legs close to my body, because we're going to travel fast."

HIS bulky figure pressed through the line of Earthmen. Ullen shut his eyes as the rapid motion under supernormal gravity stirred his stomach into rebellion. He opened them once again in the dim recesses of the low-ceilinged shelter.

The guard set him down carefully and adjusted the crutches beneath Ullen's armpits, "O.K. pop. Take care of yourself."

Ullen took in his surroundings and hobbled to one of the low benches at the near end of the shelter. From behind him came the sombre clang of the thick, leaden door.

The Martian historian fished a worn tablet from his pocket and scribbled slow notes. He disregarded the excited babble that arose about him and the scraps of heated talk that filled the air thickly.

And then he scratched at his furrowed forehead with the stub end of his pencil, meeting the staring eyes of the man sitting next to him. He smiled abstractedly and returned to his notes.

"You're a Martian, aren't you?" His neighbor spoke in quick, squeaky tones. "I don't like foreigners much, but I've got nothing special against Marsies. These Veenies now, they—"

Ullen's soft tones interrupted him. "Hate is all wrong, I dink. Dis war is a great annoyance—a great one. It interferes wid my work and you Eardmen ought to stop it. Is it not so?"

"You can bet your hide we're going to stop it," came the emphatic reply. "We're going to bash their planet inside out—and the dirty Veenies with it."

"You mean attack deir cities like dis?" The Martian blinked owlishly in thought, "You dink dat would be best?"

"Damn it, yes. It—"

"But look." Ullen placed a skeleton finger in one palm and continued in gentle argument. "Would it not be easier to get de ships demselves by de fall-apart weapon?—Don't you dink so? Or is it dat de Venus people, dey have de screens?"

"What weapon did you say?"

Ullen ruminated carefully, "I suppose dat isn't de name *you* call it by—but I don't know about weapons, anyway. We call it on Mars de *'skellingbeg'* and dat means in English 'fall-apart weapon.' Now you know?"

There was no direct answer unless a vague under-breath mutter could be called one. The Earthman pushed away from his companion and stared at the opposite wall in a fidget.

Ullen sensed the rebuff and shrugged one shoulder wearily, "It is not dat I care much about de whole ding. It is only dat de war is a big bodder. It should

be ended." He sighed, "But I don't care!"

His fingers had just begun manipulating the pencil once more in its travels across the open tablet on his lap, when he looked up again.

"Tell me, please, what is de name of dat country where Hitler died. Your Eard names, dey are so complicated some times. I dink it begins wid an M."

His neighbor ripped him open with a stare and walked away. Ullen's eyes followed him with a puzzled frown.

And then the all-clear signal sounded.

"Oh, yes," said Ullen. "Madagascar! Such a silly name!"

JOHNNIE BREWSTER'S uniform was war-worn now; a bit more wrinkled about the neck and shoulders, a trace more worn at knees and elbows.

Ullen ran his finger along the angry scar that ran the length of Johnnie's right fore-arm, "It hurts no more, Johnnie?"

"Nuts! A scratch! I got the Veenie that did that. He's chasing dreams in the moon now."

"You were in de hospital long, Johnnie?"

"A week!" He lit a cigarette, pushed some of the mess off the Martian's desk and seated himself. "I've spent the rest of the time with my family, though I did get around to visiting you, you see."

He leaned over and poked an effectionate hand at the Martian's leathery cheek, "Aren't you going to say you're glad to see me?"

Ullen removed his glasses and peered at the Earthman, "Why, Johnnie, are you so uncertain dat I am glad to see you, dat you require I should say it in words?" He paused, "I'll make a note of dat. You silly Eardmen must always be telling each oder dese simple dings—and den you don't believe it anyway. On Mars—"

He was rubbing his glasses methodically, as he spoke, and now he replaced them, "Johnnie, don't you Eardmen have de 'fall-apart' weapon? I met a person once in de raid shelter and he didn't know what I was talking about."

Johnnie frowned, "I don't either, for that matter. Why do you ask?"

"Because it seems strange dat you should have to fight so hard dese Venus men, when dey don't seem to have de screens to stop it wid. Johnnie, I want de war should be over. It makes me all de time stop my work to go to a shelter."

"Hold on, now, Ullen. Don't sputter. What is this 'fall-apart' weapon? A disintegrator? What do you know about it?"

"I? I know nodding about it at all. I dought *you* knew—dat's why I asked. Back on Mars, in our histories, dey talk about using dat kind of weapon in our old wars. But we don't know nodding about weapons anymore. Anyway, dey're so silly, because de oder side always dinks of someding which protects against it, and den everyding is de same as always.—Johnnie, do you suppose you could go down to de desk and ask for a copy of Higginboddam's 'Beginnings of Space Travel?' "

The Earthman clenched his fists and shook them impotently, "Ullen, you damned Martian pedant—don't you understand that this is important. Earth is at war! War! War! *War!*"

"Well, den, stop de war." There was irritation in Ullen's voice. "Dere is no peace and quiet anywhere's on Eard. I wish I had dis library—Johnnie, be careful. Please, what are you doing? You're hurting me."

"I'm sorry, Ullen, but you've got to come with me. We're going to see about this." Johnny had the feebly protesting Martian wedged into the wheel-chair and was off with a rush, before he had finished the sentence.

A rocket-taxi was at the bottom of the Library steps, and together chauffeur and Spaceman lifted the chair inside. With a comet-tail of smoke, they were off.

Ullen moaned softly at the acceleration, but Johnnie ignored him, "Washington in twenty minutes, fellow," he said to the driver, "and ignore the signal beams."

THE STARCHED SECRETARY spoke in a frozen monotone, "Admiral Korsakoff will see you now."

Johnnie wheeled and stamped out the last cigarette butt. He shot a hasty glance at his watch and grunted.

At the motion of the wheel-chair, Ullen roused himself out of a troubled sleep. He adjusted his glasses, "Did dey let us in finally, Johnnie?"

"Shhh!"

Ullen's impersonal stare swept over the rich furnishings of the room, the huge maps of Earth and Venus on the wall, the imposing desk in the center. It lingered upon the pudgy, bearded figure behind this desk and then came to rest upon the lanky, sandy-haired man at his side.

The Martian attempted to rise from the chair in sudden eagerness, "Aren't you Dr. Dorning? I saw you last year at Princeton. You remember me, don't you? Dey gave me at dat time, my honorary degree."

Dr. Thorning had advanced and shook hands vigorously, "Certainly. You spoke then on Martian historical methods, didn't you?"

"Oh, you remember. I'm glad! But dis is a great opportunity for me, meeting you. Tell me, as a scientist, what would be your opinion of my deory dat de social insecurity of de Hitlerian Era was de direct cause for de lag—"

Dr. Thorning smiled, "I'll discuss it with you later, Dr. Ullen. Right now, Admiral Korsakoff wants information from you, with which we hope to end the war."

"Exactly," Korsakoff spoke in clipped tones as he met Ullen's mild gaze. "Although a Martian, I presume you favor the victory of the principles of freedom and justice over the foul practices of Venusian tyranny."

Ullen stared uncertainly, "Dat sounds familiar—but I don't dink about it much. You mean, maybe, de war should end?"

"With victory, yes."

"Oh, 'victory,' dat is just a silly word. History proves dat a war decided on military superiority only lays de groundwork for future wars of retaliation and revenge. I refer you to a very good essay on de subject by a James Calkins. It was published all de way back in 2050."

"My dear sir!"

Ullen raised his voice in bland indifference to Johnnie's urgent whisperings. "Now to end de war—really end it—you should say to de plain people of Venus, 'It is unnecessary to fight. Let us just talk'—"

There was the slam of fist on desk and a muttered oath of frightful import. "For God's sakes, Thorning, get what you want out of him. I give you five minutes."

THORNING stifled his chuckle, "Dr. Ullen, we want you to tell us what you know about the disintegrator."

"Disintegrator?" Ullen put a puzzled finger to his cheek.

"The one you told Lieutenant Brewster of."

"Ummmm— Oh! You mean de 'fall-apart' weapon. I don't know nodding about it. De Martian historians mention it some times, but none of dem *know* about it—de technical side, dat is."

The sandy-haired physicist nodded patiently, "I know, I know. But what do they say? What kind of a weapon is it?"

"Well, de way dey talk about it, it makes de metals to fall to pieces. What is it you call de ding dat holds metals togedder, now?"

"Intra-molecular forces?"

Ullen frowned and then spoke thoughtfully, "Maybe. I forgot what de Martian

word is—except dat it's long. Anyway, dis weapon, it makes dis force dat holds de metals togedder not to exist anymore and it all falls apart in a powder. But it only works on de dree metals: Iron, cobalt, and—uh—de odder one!"

"Nickel," prompted Johnnie, softly.

"Yes, yes, nickel!"

Thorning's eyes glittered, "Aha, the ferromagnetic elements. There's an oscillating magnetic field mixed up in this, or I'm a Veenie. How about it, Ullen?"

The Martian sighed, "Such crazy Eard words.—Let's see now, most of what I know about de weapon is from de work of Hogel Beg. It was—I'm pretty sure—in his "Cultural and Social History of de Dird Empire." It was a huge work in twenty-four volumes, but I always dought it was radder mediocre. His technique in de presentation of—"

"Please," said Thorning, "the weapon—"

"Oh, yes, *dat!*" He hitched himself higher in his chair and grimaced with the effort. "He talks about electricity and it goes back and ford very fast—*very* fast, and its pressure—" He paused hopelessly, and regarded the scowling visage of the bearded Admiral naively, "I *dink* de word is pressure, but I don't know, because it is hard to translate. De Martian word is *'cranstad.'* Does dat help?"

"I think you mean 'potential,' Dr. Ullen!" Thorning sighed audibly.

"Well, if you say so. Anyway, dis 'potential' changes also *very* fast and de two changes are synchronized somehow along wid magnetism dat—uh—shifts and dat's all I know about it." He smiled uncertainly, "I would like to go back now. It would be all right now, wouldn't it?"

The Admiral vouchsafed no answer, "Do you make anything out of that mess, Doctor?"

"Damned little," admitted the physicist, "but it gives me a lead or two. We might try getting hold of this Beg's book, but there's not much hope. It will simply repeat what we've just heard. Dr. Ullen, are there any scientific works on your planet."

The Martian saddened, "No, Dr. Dorning, dey were all destroyed during de Kalynian reaction. On Mars, we doroughly disbelieve in science. History has shown dat it comes from science no happiness." He turned to the young Earthman at his side, "Johnnie, let us go now, please."

Korsakoff dismissed the two with a wave of the hand.

ULLEN BENT carefully over the closely-typed manuscript and inserted a word. He glanced up brightly at Johnnie Brewster, who shook his head and placed a hand on the Martian's arm. His brow furrowed more deeply.

"Ullen," he said harshly, "You're in trouble."

"Eh? I? In trouble? Why, Johnnie, dat is not so. My book is coming along famously. De whole first volume, it is completed and, but for a bit of polishing, is ready for de printers."

"Ullen, if you can't give the government definite information on the disintegrator, I won't answer for the consequences."

"But I told all I knew—"

"It won't do. It's not enough. You've got to remember more, Ullen, you've *got* to."

"But knowledge where dere is none is impossible to have—dat is an axiom." Ullen sat upright in his seat, propping himself on a crutch.

"I know it," Johnnie's mouth twisted in misery, "but you've got to understand.

"The Venusians have control of space; our Asteroid garrisons have been wiped out, and last week Phobos and Deimos fell. Communications between Earth and Luna are broken and God knows how long the Lunar squadron can hold out. Earth itself is scarcely secure and their

bombings are becoming more serious—. Oh, Ullen, don't you understand?"

The Martian's look of confusion deepened, "Eard is losing?"

"God, yes!"

"Den give up. Dat is de logical ding to do. Why did you start at all—you stupid Eardmen."

Johnnie ground his teeth, "But if we have the disintegrator, we won't lose."

Ullen shrugged, "Oh, Johnnie, it gets wearisome to listen to de same old story. You Eardmen have one-track minds. Look, wouldn't it make you feel better to have me read you some of my manuscript? It would do your intellect good."

"All right, Ullen, you've asked for it, and here's everything right out. If you don't tell Thorning what he wants to know, you're going to be arrested and tried for treason."

There was a short silence, and then a confused stutter, "T—treason. You mean dot I betray—" The historian removed his glasses and wiped them with shaking hand, "It's not true. You're trying to frighten me."

"Oh, no, I'm not. Korsakoff thinks you know more than you're telling. He's sure that you're either holding out for a price or, more likely, that you've sold out to the Veenies."

"But Dorning—"

"Thorning isn't any too secure himself. He has his own skin to think of. Earth governments in moments of stress are not famous for being reasonable." There were sudden tears in his eyes, "Ullen, there must be something you can do. It's not only you—it's for Earth."

Ullen's breathing whistled harshly, "Dey tink I would *sell* my scientific knowledge. Is dat de kind of insult dey pay my sense of eddics; my scientific integrity?" His voice was thick with fury and for the first time since Johnnie knew him, he lapsed into guttural Martian. "For dat, I say not a word," he finished. "Let dem put me in prison or shoot me, but dis insult I cannot forget."

There was no mistaking the firmness in his eyes, and Johnnie's shoulders sagged. The Earthman didn't move at the glare of the signal light.

"Answer de light, Johnnie," said the Martian, softly, "Dey are coming for me."

IN A moment, the room was crowded with green uniforms. Dr. Thorning and the two with him were the only ones present in civilian clothes.

Ullen struggled to his feet, "Gentlemen, say nodding. I have heard dat it is dought dat I am selling what I know—*selling for money.*" He spat the words. "It is a ding never before said of me—a ding I have not deserved. If you wish you can imprison me immediately, but I shall say nodding more—nor have anyding furder to do wid de Eard government."

A green-garbed official stepped forward immediately, but Dr. Thorning waved him back.

"Whoa, there, Dr. Ullen," he said jovially, "don't jump too soon. I've just come to ask if there isn't a single additional fact that you remember. Anything, no matter how insignificant—"

There was stony silence. Ullen leant heavily on his crutches but remained stolidly erect.

Dr. Thorning seated himself imperturably upon the historian's desk, picked up the high stack of type-written pages, "Ah, is this the manuscript young Brewster was telling me about." He gazed at it curiously, "Well, of course, you realize that your attitude will force the government to confiscate all this."

"Eh?" Ullen's stern expression melted into dismay. His crutch slipped and he dropped heavily into his seat.

The physicist warded off the other's feeble clutch, "Keep your hands off, Dr. Ullen, I'm taking care of this." He leafed

through the pages with a rustling noise. "You see, if you are arrested for treason, your writings become subversive."

"Subversive!" Ullen's voice was hoarse, "Dr. Dorning, you don't know what you are saying. It is my—my great labor." His voice caught huskily, "Please, Dr. Dorning, give me my manuscript."

The other held it just beyond the Martian's shaking fingers.

"If—" he said.

"But I don't know!"

The sweat stood out on the historian's pale face. His voice came thickly. "Time! Give me time! But let me dink—and don't, please don't harm dis manuscript."

The other's fingers sank painfully into Ullen's shoulder, "So help me, I burn your manuscript in five minutes, if—"

"Wait, I'll tell you. Somewhere—I don't know where—it was said dat in de weapon dey used a special metal for some of de wiring. I don't know what metal, but water spoiled it and had to be kept away—also air. It—"

"Holy jumping *Jupiter,"* came the sudden shout from one of Thorning's companions. "Chief, don't you remember Aspartier's work on sodium wiring in argon atmosphere five years ago—"

Dr. Thorning's eyes were deep with thought, "Wait—wait—wait—*Damn!* It was staring us in the face—"

"I know," shrieked Ullen suddenly. "It was in Karisto. He was discussing de fall of Gallonie and dat was one of de minor causes—de lack of dat metal—and den he mentioned—"

He was talking to an empty room, and for a while he was silent in puzzled astonishment.

And then, "My manuscript!" He salvaged it from where it lay scattered over the floor, hobbling painfully about, smoothing each wrinkled sheet with care.

"De barbarians—to treat a great scientific work so!"

ULLEN opened still another drawer and scrabbled through its contents. He closed it and looked about peevishly, "Johnnie, where did I put dat bibliography? Did you see it?"

He looked toward the window, "Johnnie!"

Johnnie Brewster said, "Wait a while, Ullen. Here they come now."

The streets below were a burst of color. In a long, stiffly-moving line the Green of the Navy paraded down the avenue, the air above them snow-thick with confetti, hail-thick with ticker-tape. The roar of the crowd was dull, muted.

"Ah, de foolish people," mused Ullen. "Dey were happy just like dis when de war started and dere was a parade just like dis—and now anodder one. Silly!" He stumped back to his chair.

Johnnie followed, "The government is naming a new museum after you, isn't it?"

"Yes," was the dry reply. He peered helplessly about under the desk, "De Ullen War Museum—and it will be filled wid ancient weapons, from stone knife to anti-aircraft gun. Dat is your qucer Eard sense of de fitness of dings. *Where* in dunderation is dat bibliography?"

"Here," said Johnnie, withdrawing the document from Ullen's vest pocket. "Our victory was due to your weapon, ancient to you, so it *is* fit in a way."

"Victory! Sure! Until Venus rearms and reprepares and refights for revenge. All history shows—but never mind. It is useless, dis talk." He settled himself deeply in his chair, "Here, let me show you a real victory. Let me read you some of de first volume of my work. It's already in print, you know."

Johnnie laughed, "Go ahead, Ullen. Right now I'm even willing to listen to you read your entire twelve volumes—word for word."

And Ullen smiled gently. "It would be good for your intellect," he said.

THE END

Space-War Strategy

What to do when the Martians come. . . .

By Malcolm Jameson

SINCE the day of the trireme, warships have tended to specialize into types. Today we have such widely different classes as the heavy battleship, capable of keeping the sea in all weathers and dealing out and receiving terrible punishment; the submarine, which operates by stealth; the fast cruiser whose main function is to obtain information; aircraft carriers, transports, and so on. Whether seagoing tug or destroyer leader, each is designed for a definite purpose, and for its job is well nigh indispensible.

The fleets of tomorrow will be quite as specialized, and it may be interesting to speculate on how the conditions of space warfare will react on ship design and employment. If we imagine that the planets have all been colonized and some have set up independent governments, and that men occasionally still fight wars, how would such a war be conducted? What form would the attack take, and what defense could be made?

To simplify, let us assume that relations are at the breaking point between the Earth and Mars, that Mars is aggressive and is sure to attack, that both planets have considerable, and well-balanced fleets. Where and when would the attack fall and how could it be parried?

Since Mars is on the offensive, it can be assumed that she is sending an expeditionary force. She is bent on more than a mere raid, she intends to conquer the Earth if she can. She will therefore have transports full of troops, supply and ammunition ships, and hospital ships. These will be well guarded by warships and there will be special fighting units to beat down any opposition. The Earth cannot afford to wait for this invading armada to appear in her own skies—that would leave too many places to defend. She must intercept the fleet en route and destroy it there, or cripple it so it will have to turn back. Or, failing that, she must know when and where it will arrive so as to concentrate her defense.

SPACE is vast, and there are many possible routes by which the Martians can come. Which are they using, and how far along are they? These questions must be answered by the scouts. The function of scouts is to obtain information and nothing more. They possess high maneuverability, being of small mass and tremendous accelerative power. They need have little or no armament, but their crews must be handpicked physical specimens capable of enduring much greater accelerations than the run of men. Their chief equipment is thermoscopes, or delicate thermo-couples, for locating ships by their intrinsic heat, and radio-sounding devices for measuring distances. And powerful radios, of course, for reporting what they have learned.

Now, although there are a number of possible routes for the Martians to follow, they all fall within a well defined area, just as there are a number of choices of routes between New York and Southampton, but lying in a fairly narrow band. Just as great fleets could not afford to go too far from those to throw an enemy off —as they would run out of fuel—neither could spaceships get too far from their most economical course. Students of rocket-ship trajectories know that the best course is a "C" shaped compound spiral connecting the two planets, and that it lies in or close to the plane of the ecliptic.

Within limits, it should be possible to follow nearly parallel courses to one side or the other or above or below that "optimum" course. The *locus,* or rather the envelope of all such possible courses, would be a crescent shaped solid of circular or elliptical cross-section—something like a curved banana, or a pair of cow's horns set base to base. Its middle section might be as thick as sixty or eighty millions of miles across, but its ends would converge to the diameters of the planets involved.

The scouts know that the enemy is somewhere within this figure, but not how much to the right or left, or how far they have come. Once they can establish several successive points along the invader's trajectory, they can compute the rest. Therefore, the Earth sends out many fast scouts in successive waves.

These scouts spread out so as to cover the entire solid described above, but the space left between any adjacent pair must not be so great that an enemy ship could slip through without detection. If the range of the thermoscopes is five million miles, then the scouts should never be more than ten million miles apart. One or the other could then pick up the enemy vessel. They dart forward, piling up acceleration to the limit of their crews' endurance. By the time they make contact with the enemy, they are hurtling forward at such terrific velocity that their contact is much too brief for fighting. They may over-leap the enemy by millions of miles before they can check their momentum, but it will not matter—they have detected him and reported it.

A SECOND wave of scouts repeats the process a few hours later, and a second point along the enemy's trajectory is known. With a third as a check, computers on the flagship back near Earth can then schedule the enemy's future movements, knowing that he cannot alter his course or speed much without ruinous expenditures of time and fuel. It does not matter greatly whether the Martian cruiser screen destroys some of these scouts or not. A reported scrimmage is a contact, nevertheless, and that is the scout's job.

Without the reports of the scouts, the Earth forces would be blind, not knowing within days when the enemy would strike, or from what quarter. With a knowledge of the most probable course, they can now make preparations to fight. The Earth main body, consisting of minelayers, fast torpedo boats and various battleships, takes off. They get clear of the Earth's gravity and kill their momentum along the Earth's orbit. Then they lie in space, to the sides of the enemy's line of approach, allowing the Earth to recede from them. They are motionless.

More detailed reports from the scouts inform them that the enemy is proceeding in a cruising formation somewhat like a fat, double-ended spear. The shank of it is a cylinder with the transports and other supply ships in line along its axis. The spearheads, front and rear, are cone-shaped formations of heavy fighting ships. Out ahead and on the quarters are clouds of cruiser screens to keep the scouts as far away as possible.

The Earth commander wishes to attack the Martian formation by surprise, if possible, and that is why he lies outside the horn-shaped locus of possible enemy trajectories. After the enemy has passed, the Earth forces will converge upon him from the rear by swiftly building up acceleration. In order to first throw the enemy into confusion and upset his formation (which is designed for quick deployment in any direction and at the same time to protect the non-combatant ships of the train) our admiral sends a squadron of minelayers across his path to strew great numbers of small iron mines. Having laid their mines, the mining ships hurry ahead and get clear, proceeding on to Earth.

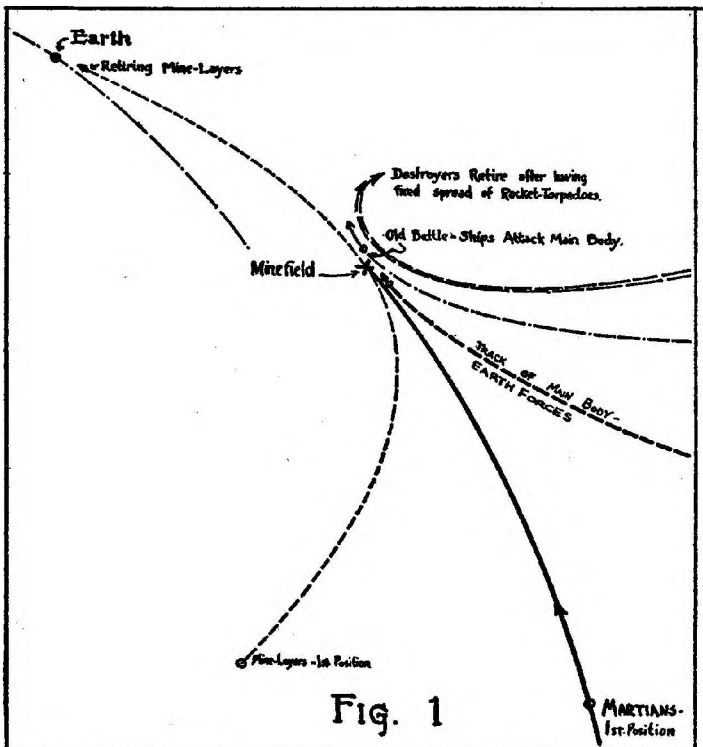


FIG. 1

Figure One shows the outline of the main battle between Terrestrial and Martian forces, after the Earth fleet has first broken through, decelerated, and is returning. Figure Two is a closeup of the same scene.

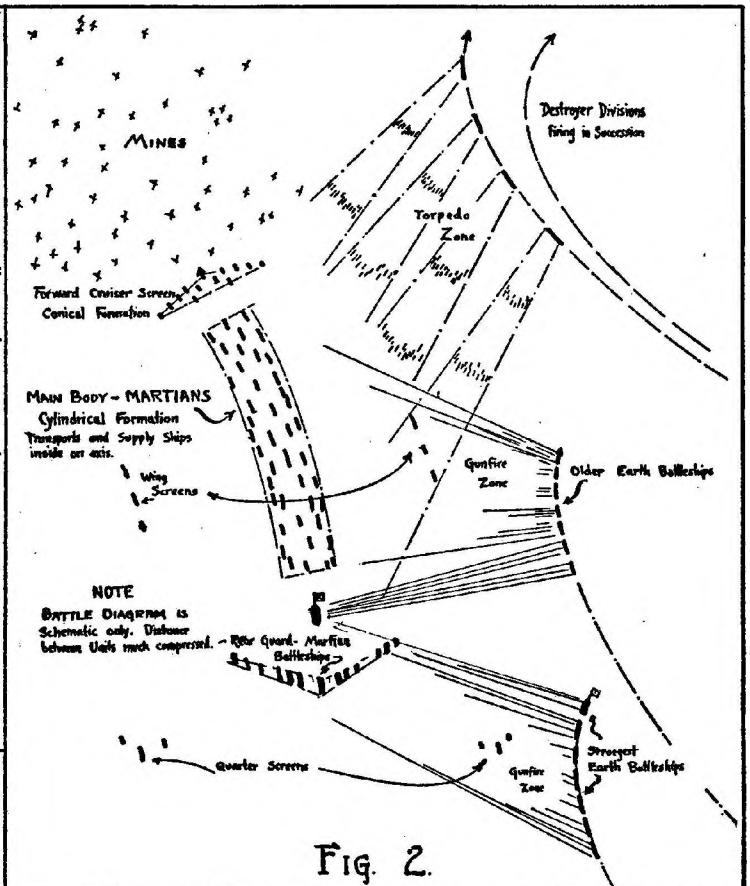


FIG. 2.

As the vanguard of the invading fleet bumps into the mines, they radio the news back to the central column, so that screens can be doubled, collision doors closed and course altered. It is while they are endeavoring to maneuver past these mines that the Earth destroyer divisions attack. They come up by groups from outside space and behind, and as they cross the bows of the formation, they let successive waves of self-accelerating rocket torpedoes go, fanwise.

With torpedoes coming at them from the beam, the ships in the formation are likely to turn themselves by means of their jet deflectors so as to head toward the torpedoes. Their screens are more effective that way, and they also offer a narrower target. But at the same time they continue to drift sideways along their old course from momentum, and therefore will strike many of the mines.

It is just at this moment of confusion that the waiting battleship squadrons overtake them and add their gunfire and torpedo salvos. This attack comes on the opposite flank from the mines. The Martians are beautifully trapped in a three-way cross fire.

THE Earthmen's attack is essentially a hit-and-run affair. To overtake the enemy as shown in the diagrams, they must have built up much greater velocity than the Martians and will therefore sweep by at terrific speed, letting go their missiles at the predetermined moment. The Martians have little opportunity to hit back, and will probably sustain heavy damage. Once the defenders are up ahead, they can swing out again, kill their velocity, and prepare to repeat the maneuver.

It must be observed that in this campaign, the defenders are given an advantage—superior information. For any campaign to be decisive, one side or other always has an advantage, otherwise a stalemate will result. To reverse the situation so that the Martians could win, all that is necessary would be to deprive the Earth of its scouts. They would not know then where or when to plant their ambush. Or the Martians might be given an additional advance guard of scouts and heavy ships to entice the Earthmen to come out of their ambush. Such an advance guard would take a heavy beating, but the Earthmen would have exposed their tactics and have shot on ahead. The main body of invaders, ten million miles to the rear, could alter course slightly and avoid both the minefield and any lurking warship divisions.

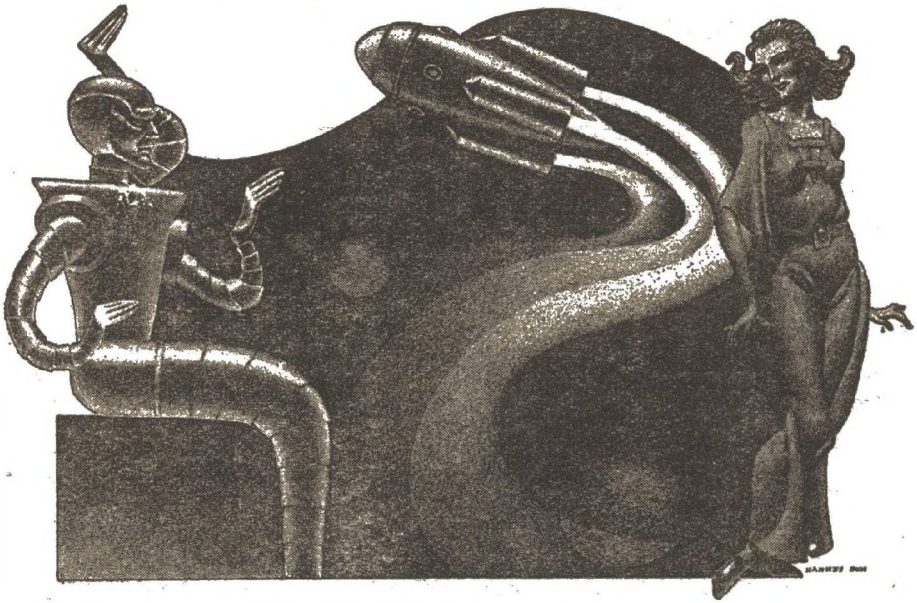
Terrestrial warfare today leans heavily on the service of information. In the future, information will be paramount. Superior forces are useless if it is not known where and when to employ them. Last year the German pocket battleship *Graf Spee* furnished an excellent illustration of that. The Allied navies were at all times overwhelmingly more powerful and numerous, yet the *Spee* roamed the seas for many weeks. Her immunity was due to the fact that her enemies *did not know where she was*. It took many weeks of searching by great numbers of destroyers and light cruisers to find out where she was *not*. By the process of elimination they discovered her. Once her location was known, her destruction was inevitable.

In the incredibly vast reaches of the void where up and down is as limitless as any other direction, and where speeds are so great and distances of passing so huge that vision is ruled out, the problems of scouting are magnified a thousand-fold. The war fleets of the future, as I see it, will consist chiefly of scouts—perhaps a hundred for every heavy-duty fighter. Weapons, however powerful and wonderful, are useless ornaments if the enemy cannot be located and brought within range.

THE END

ALMOST HUMAN

The robot Xor could hear but not speak, think but not move. And yet he had to act—somehow—though a man with a gun stood ready to end his metal life forever!



By RAY CUMMINGS

"YES, he's quite a remarkable machine," Captain James said. He stood in the pallid turret of the spaceship *Starflight* with the distinguished passenger whom he had brought here to view the vessel's mechanical pilot. "He'll pilot us to Mars, unaided. Makes every intricate calculation of the shifting forces of celestial mechanics—it's all automatic in his brain."

The little spaceship, *Starflight,* was three days out from Earth now; still in the giant cone of the Earth's shadow so that here in the turret the brilliant blue-white sheen of the myriad stars in the black firmament gleamed on the robot pilot who was sitting at the vessel's controls. He was a square, box-like figure of glistening alumite metal plates fashioned in pseudo-human form. Tubular jointed legs, bent into a right-angle now at the knees as he sat in his chair with his feet on the ships' controls. Rectangular, square-shouldered body, with slightly bulging chest.

The metal head was round-skulled, with a face engraved like the death-mask of human features as though it were the frozen face of a young man sitting here impassive, with only an occasional movement of fingers or feet as they shifted the intricate levers of the spaceship's controls.

A thing almost human. Product of the mechanical genius of man, developed through five centuries of scientific labor so that here seemingly was the peak of

what man could do in the creation out of metal—of a thing almost human. The distinguished visitor stood awed. He was the Honorable Robert Thomas, Earth Ambassador to Mars. By chance this was his first trip into space, his first sight of one of the mechanical robots. And it startled him. The thing was a machine, of course. But the eyes were alive—twin electronic beams of red and green that darted now with restless, questing gaze along the lines of dials and instrument-recorders of the ship's mechanisms. And from within the glistening metal skull, it seemed that the mathematical thought-processes of the robot were audible—faint little clicks, and a throbbing, hissing hum.

"Does he have a name?" the Ambassador murmured.

"Yes. Factory registration, engraved there on his chest above the fuse-plug. Xor—2y4. But he responds simply to the syllable, Xor. Understands English words only—built for operation-response to Engglish."

"He doesn't talk?"

The Captain smiled. "No. He can communicate nothing to us. Built merely to understand us—execute our orders. But most of his work is automatic."

Beside the robot-pilot, a member of the *Starflight's* crew was sitting silent. The Ambassador noticed that his alert gaze was watching the robot pilot's every move and that a small flash-gun was on his knee, with its hooded grid-muzzle leveled upon the robot.

The Ambassador gestured. "What's that for?"

"This Xor made an error once," the Captain said. "So this is a precaution, because now we cannot altogether trust his reactions. Something went wrong in him." The Captain's smile faded. "He's too expensive a mechanism to put out of service—but, I think it was about a year ago, he went wrong and killed a man. I don't just know the details—"

The Ambassador shuddered. "Killed a man?"

Footsteps in the turret entrance made him and the Captain turn. Jon Dekain and his daughter were entering. The world famous robot-builder was a thin grey-haired man in his sixties. He smiled his acknowledgement of the Captain's introductions; and then he stood silently regarding the robot-Xor.

"He's working all right, Captain?" Dekain said at last.

"Yes, so far." The Captain's smile was lugubrious. "I can't say I'd want our passengers to know about this—my first trip with this pilot. I sort of wish—with all due respect to you, Mr. Dekain—I wish that my owners hadn't bought him."

The robot-builder nodded. "I had nothing personally to do with that. But I think he's safe enough—your guard could burn his fuse-plug in a second, and take over the controls."

Suddenly there seemed a grim menace here in the pallied little control turret. This mute impassive thing in the chair at the controls abruptly seemed an enemy.

"He—it killed a man?" the Ambassador was murmuring.

"An error of calculation in landing an aircar," Dekain explained. "The car was wrecked, the lone passenger killed. Xor was pretty well deranged—sent to our factory for repairs. There was no way I could find out what had caused it."

BESIDE the Ambassador, Barbara Dekain was standing. She was small, exceedingly pretty girl, slim in corded trousers and whit silk blouse. Her bobbed brown hair glistened with the glint of the starlight on it. She had not spoken; she was staring at Xor.

"It wasn't deliberate," the girl said suddenly. "It must have been only a mathematical error. He—he wouldn't harm a human. And now you're punishing him—working him here with a guard

as though he were a human murderer. How do you think he feels—hearing us discuss him like this—"

"Babs—"her father murmured. "He's just a machine—no different in principle from any other calculating-machine—"

"Oh isn't he?" she retorted. "You, father, you build these robots—you make them think—and you don't know at all what forces of nature you're trifling with. Xor can't tell you. How do you know how near human he is?" Her voice broke with her emotion.

"Very sentimental," a suave voice from the doorway said. "But not very scientific, Miss Barbara. . . . May I come in, Captain?"

"Why yes, of course, Sirrah Ahli."

The newcomer came quietly forward and joined the group. He was a native of Asteroid-90—this Sirrah Ahli—the only person on the ship, this voyage, who was not Earth-born. A big, spindly fellow of grey-blue skin, and blue-white hair which flowed down to frame his goggling ugly face. Born on the little asteroid, in the belt between Mars and the Earth, his body was fragile, light in weight. But his sleek flesh did not show its fragility. Earth's normal gravity was maintained here on the *Starflight*, and the Sirrah Ahli's muscles—powerfully developed—enabled him to walk seemingly with not much more effort than the Earthmen. He drew his pallid silver cloak around him, and his slit of mouth ironically was smiling as he bowed to the Earth people.

"Mr. Thomas, I am honored—I did want to meet you," he said to the Ambassador to Mars. "Our rank is much the same, you and I—condemned to work in strange lands, far from our homes."

Sirrah Ahli was Asturia's Representative in Great New York. He was going to Mars now, since the *Starflight* did not stop at the little asteroid, and then he would transship to a local vessel for Asteroid 90. An intelligent fellow, typical of his advanced race. And with their characteristic suaveness and irony. His dark, bulging eyes were glowing as he regarded Barbara; and then he stared at the impassive metal figure of Xor.

"So you think, Miss Barbara, that even your father, when he builds a mechanical device, might not realize he had built something almost human?" His contemptuous glance swept the robot. "That's sentimental—and absurd. If I did not think so—" His thin blue lips curled in a wry smile. "I'd be tempted to smash this thing here. It killed my brother."

"Killed your brother?" Thomas murmured.

"Yes. Didn't they tell you? My brother—the Sirrah Gerondli—was on his way to see Mr. Dekain—in Mr. Dekain's private aircar. And I thought of course that this robot-pilot was a competent machine. But—they crashed. My poor brother killed." There was no one in the pallid, starlit turret, who noticed that the red and green eyebeams of the robot seemed to intensify a little.

"So you see, Miss Barbara," the Asturian concluded, "I hardly like your sentimentality."

"Let's talk of something else," Thomas said. "This is too gruesome—makes me jumpy."

They were presently gone from the dim turret. There was only the impassive figure of the robot in his control chair, and the guard sitting watching with alert weapon.

Xor did not move. His red and green electronic eyebeams still questingly ranged the ship's instrument dials. Within his head there was just a little clicking buzz to mark his thoughts—those thoughts which no human would ever understand. . .

XOR could remember nothing before that day, two years ago, when in the big Dekain robot-factory his fuse plug

had been inserted and he began to function. It was hard as first to get his thoughts sorted out. He seemed to have a vast knowledge that was all jumbled into chaos. He found himself seated upright in a metal chair, with all his work before him—training dials and levers, with mathematical calculations to make, and things to do with his hands and feet when he had mechanically determined the quotients.

It was interesting. And it got rapidly easier when after a time he was conscious that the engravings on his memory scroll were growing. That was helpful—to summon the memory-records of something he had already done when he encountered another task somewhat similar.

Xor's understanding of the external world expanded amazingly. His test period lasted only what the humans called some fifty days. With every test he knew that he was a perfect machine. But there was something, throughout those test-periods, which even the humans did not know. His expanding knowledge. Things he was hearing, and seeing—things that clicked in the electroid sponge-cells of his brain.

He remembered how pleased he had been when he heard in the factory that he wasn't sold, but was to be the robot-pilot of Dekain's personal aircar. And after that, so often he had piloted Barbara, unerringly, through fog and storm and always to perfect landings. He had, one night, come to wonder why it was that he liked Barbara more than any other human. And then he knew it was because she believed in him; because somehow she made him feel proud of himself.

And then he knew that there was something else. A vague reaction-thought which seemed to tell him something of the future. Like an intuition. It was a queer thought: it was, that though her father did not know it, Xor—2y4 had been built with a destiny. A destiny to be of particular service to Barbara Dekain. He didn't understand what that meant. And then, quite suddenly one night—he understood. . .

If only he could tell her now why he had deliberately crashed that aircar and killed the brother of this Asturian, Sirrah Ahli. . .

Xor sat at his endless task, his mind was occupied with the intensity and direction of the rocket-streams; calculating the vessel's trajectory; watching the internal air-pressure; the workings of the air-renewers and circulators. His mind was clicking with all that. But also his brain seemed to hold an undercurrent of other thoughts . . . This Sirrah Ahli—what was he doing here? And why was there something sinister, that seemed brewing now on the little *Starflight?* Xor could not walk. He was sorry about that; it would have made him even more like a human. But he had been built only to sit in a chair as a pilot. He had been in this chair since they put him here when the *Starflight* left Earth's stratosphere.

But his electroidal senses of sight and hearing were infinitely beyond those of any human. Or was it that he had some other sense? Like an intuition? Whatever it was, he could feel that something was wrong.

THE bells of the midnight hour rang through the silent ship. Peter the guard was smoking now; clutching his weapon, gazing abstractedly at Xor. From his slouching seat Peter couldn't see out through the visor pane and down to the forward deck peak, where it glistened in the starlight that filtered through the big overhead glassite pressure dome. But Xor's red and green eyebeams magnified the dim scene down there so that is was perfectly clear. A figure in a dark cloak was crouching there in a shadow. No one saw the figure. No one but Xor—who

couldn't tell anyone what he was seeing.

It was an Asturian crouching there. Xor saw his face clearly in the dimness. An Asturian—but not Sirrah Ahli. That was very queer. Xor remembered that he had heard the Captain say that Ahli was the only Asturian on the ship—all the rest were Earth-people. Then this was a stowaway; this was that dark shadow which last night Xor had seemed to see slinking along the dim deck.

Then abruptly, from the side deck now another figure was advancing in the dimness. Sirrah Ahli. A little glint of starlight disclosed him as he passed through it; and then he was crouching with the lurking figure. . . The murmuring, swift voices were a blurred whisper.

One of Xor's metal hands with its prehensile fingers left the controls and pressed a button in his side. Peter the guard did not notice. Within Xor, his hearing grids vibrated to a new intensity. The magnified voices were clear now.

"It shall be tonight, Sirrah Ahli?"

"Yes. In an hour. I will give you the signal. You have opened the covers?"

"Oh yes, Sirrah. All is ready. They will burst out when I call to them."

"Good. I will seize the girl, to take no chances that she is killed." Ahli's chuckle mingled with his words. "She is worth more to me alive, than dead, Gore. A beautiful little thing—if you like Earth-girls, and I do. And a nice hostage. The treasure for us on this ship, Gore—and with the girl as hostage, we can demand more from the Earth Government. Don't you think so?"

What could it mean? The crouching figures now were saying other things in the Asturian language; and then in a moment they had separated. The lurking figure had ducked into a little cross corridor and vanished down into the hold. And Ahli came sauntering back along the deck-peak, going aft to join some of the other passengers who had not yet retired.

What could it mean? An agony of apprehension was within the mute, impassive Xor. Something most terrible was going to happen within an hour. That was evident. Ahli would give a signal. Who—what—would burst out now that the covers were opened? What could it mean?

With his human guard beside him, the terrified Xor sat mute at the vessel's controls. If only he could tell this to someone! Within him was a great flood of horror. It was so strong, so seething that almost it upset a calculation of the *Starflight's* course which another part of his brain was making. He was so mute; so helpless! Just a calculating machine—that's what these humans believed. How could they know that another part of his consciousness had developed? The consciousness that he must do something now to save Barbara.

Where was the girl now? The damnable Ahli was roaming the ship looking for her; planning to seize her. . . If only she had gone to bed, where perhaps she might be safe. . .

THEN suddenly Xor's red and green eyebeams—roving out through the side and front vizor panes of the turret—saw the girl. With her father, and the tall, grey-haired Thomas, Earth's Ambassador to Mars—they were coming forward along one of the narrow side decks. Then at a forward bullseye pane, beyond which the abyss of black firmament lay strewn with the myriad glittering stars, and red Mars hung like a dull-red ball in front of the ship's bow, they paused in a little group. They were vehemently whispering. Xor intensified his nodule-vacuums to step up the sound vibrations.

"But I tell you, father—I'm afraid of him." It was Barbara's agitated voice. "That Sirrah Ahli—the way he looks at me. Oh, a girl can sense it—I've always been afraid of him—"

Her intuition. It was like Xor himself. He had felt, ever since the *Starflight* left Earth, that there was something of danger in this voyage. It made a queer feeling surge within Xor. There was a bond between him and this human girl. Both of them, frightened. If only he could call out with a voice like a human now—call out and tell them what he had heard and seen! It was so ghastly, just to sit imprisoned here within this metal box which was his body. . .

"Nonsense, child," Dekain was saying.

"But it isn't nonsense, father. And this voyage—there's something horrible going to happen—I can seem to feel it." She was gripping her father now; and beside them the grave-faced Ambassador was silently listening. "You father—you know that this voyage is important. The secret cargo—"

"What's that mean?" Thomas demanded tensely.

"No reason why you shouldn't know," Dekain said. "My factory, for a number of years now, has been producing a large number of my mechanical weapon appliances. Accessories of modern weapons of war. You've probably heard of some of them."

"Range-finders of space-guns," Thomas murmured.

"Yes. And space-bomb sights. Batteries for building electroid charges for the electronic space-barrage. Things like that." Dekain's voice was low, swift and vehement now. "Well, of course you know also that the inhabitants of Asteroid-90—that teeming little world—are damnably aggressive. They want living space, as they call it—"

"And so they've been casting envious eyes on Mars," Thomas agreed. "Well, let them dare attempt an invasion of Mars—"

"I don't think they're far from it," Dekain retorted. "They've been trying for a year now to buy my weapon-accessories—but the Earth-Mars treaty forbids it."

"Your daughter mentioned our secret cargo—"

"Yes." Dekain lowered his voice still further. "I'm shipping a large number of my weapon-accessories to the Martian Government. Ten thousand little devices—here on board now. Wholly secret, of course. Things to strengthen the Martian defenses, so that if at the next conjunction, Asteroid-90 should dare try an invasion—"

Xor was understanding it now! The damnable Ahli knew of this secret cargo! One of his men was a stowaway here! And they were of course planning to seize the ship—kill everyone on board—and take the ship and its cargo to Asteroid-90!

WHATEVER Xor's terror before, it was infinitely intensified now. This ghastly helplessness! A thing that was built just to sit in a chair—a calculating machine, nothing else! A machine which had made an error once, so that now it had to be watched with a human guard! If only he could make these humans realize what he knew!

Beside Xor, the guard Peter sat half somnolent, self-hypnotized with watching Xor so many hours. But what could Xor do?

"What I've been wondering," Thomas was saying, "is why Sirrah Ahli is making this voyage. He's on his way home—says he will transship from Mars, taking the local flyer back to Asteroid-90 at the next conjunction. But do you realize that in a month from now, a direct ship will leave Great New York, flying direct to Asturia? He'd be home much quicker by that route. What's he doing here?"

Xor could see that Dekain and Barbara were blankly staring. These humans were guessing at it now! Guessing at part of it, at least. But what could they do? They

were only guessing at part of it. Not enough. Not enough!

"And more than that," Thomas was saying, "the Purser was telling me that Ahli has an amazing number of baggage pieces with him. At least twenty big trunks, stored down in the hold. I saw one of them—a long narrow trunk—like a burial casket—"

What could that mean? Xor's brain was whirling—struggling with these weird things of the human world—things that he wasn't built to understand. . . Oh, if only he could call to Barbara now and ask her what all this could mean! She would know. She and her father would do something to stop this horrible thing. . .

Then he saw that Dekain and Thomas presently were starting back along the side deck. Barbara had said that she would join them in a few minutes; and they had left her. Standing down in the starlight, at the bullseye porte. Xor could see her slim little figure there, with a vague glint of the spacelight on it. She was gazing out through the bullseye, contemplating the glories of the vast starry Universe. She didn't know there was any danger here now, of course. Here on the *Starflight's* deck, with so many people within range of her voice. How could she know that it was dangerous?

At his controls up in the turret the mute, impassive Xor sat flooded with horror. If he could warn her— His red and green eyebeams glowed down through the forward vizor pane. But no one noticed them. . . With his metal hand he tried to make a gesture. A human gesture. But it was grotesque, futile. There was nothing within him that would direct his hand into anything even remotely simulating a human gesture. The hand merely slid in a trembling, deranged quiver across his instrument panel.

And Peter the guard, saw it. He snapped into alertness, raising his weapon so that for an instant Xor thought the bolt would hiss out, strike his fuse-plug and end everything.

"What's the idea?" Peter was growling. "You damned murderous machine—think you're goin' to try anything funny on me? Get that hand back where it belongs."

So helpless. . . And down on the pallid deck, Barbara was standing, so unaware. . . Then a shadow was creeping at her! A cloaked figure. Ahli! . . . Xor could only intensify his eyebeams so that the horrible scene was clear—the Asturian gripping her, with his hand over her mouth to stifle her scream. And now he was drawing her toward the hatchway which led to the hold. . . And in his hand Xor saw a little whistle-siren. It went toward his mouth, to give the signal. . .

And then Xor acted! What he could do sprang into his mind, clear as the clicking answer to a mathematical equation. His deft fingers slid over the ship's control keys. . .

IN THAT weird second, the little *Starflight* reeled, with all the glittering Heavens turning over. . . And then the stars settled, held firm as the tiny vessel plunged with terrible acceleration on a new course. Horrible velocity acceleration, which these humans could not stand. Xor knew it. Human bodies—human tissues, with blood flowing in them—human nerve-ganglia, all to be deranged by this swift acceleration of their velocity as they hurtled through space. . .

It seemed to Xor, in that first weird second, as though a startled gasp, pregnant with horror, had spread over the little *Starflight*. He could hear distant gasping cries. On the dim deck, Ahli and Barbara had fallen. Beside Xor the guard had gasped. His flash-weapon spat. But already the guard's nerves and muscles and brain had been affected. The shot missed Xor. It spat with a shower of sparks on the metal ceiling of the control-

turret. And then the guard had fallen to the floor.

At the controls, Xor sat mute, impassive, with his thirty little fingers pressing at the keys. If only now he would make no errors! This acceleration—through how many G's should he hold it? Enough, but not too many. And not for too long a time. . . . The little *Starflight* hurtled forward and down—a great curving trajectory now. . . And then at last Xor straightened out the course, with deft little fingers pressing other keys so that the acceleration ceased. And then there was a slow retardation. Not enough to harm a human body—just enough so that in a few hours the *Starflight* would be back at its former normal speed, and on its normal course.

And in an agony of terror, Xor sat waiting. Had he made an error? A hush like death had fallen upon the ship. There were only the faint throbs, the tiny beats of the air-renewers and circulators. Down on the deck the bodies of Barbara and Ahli were lying. All over the ship, undoubtedly, all the humans were lying like that. Stricken unconscious by the acceleration. Would they recover now?

Mingled with his terror, there was triumph within Xor. He could see, with his intensified eyebeams, that Barbara was breathing. Her face was splotched red and white with deranged blood circulation; her eyeballs seemed distended beneath her closed lids; her tongue protruded from her bluish lips—but she was breathing. And beside her the body of Ahli lay ghastly, horrible. Fragile body of an Asturian. All its intricate, delicate human mechanism—all so fragile compared to the Earth-people! The gravity on little Asteroid-90 was so slight compared to Earth—Xor had known that no Asturian could live through an acceleration of velocity like that! But the Earth-people would only be stricken into a temporary unconsciousness!

And he saw Ahli's body now—puffed with distended broken blood-vessels—a million million tiny explosions of pressure within it—and fragile, broken bones. . . Ghastly, mangled thing, noisome with bubbling blood and pulpy flesh. . .

Then at last the Earth-humans were making sounds. Distant cries. Then the sound of footsteps. And he saw Barbara stirring, and then staggering to her feet... She was all right! Everything was all right now!

BUT presently the Captain, Dekain and Barbara were gathered here in the control turret. Poor little Barbara—how could she possibly guess why Xor had done this terrible thing! All she could do was stand mute, staring at him with sorrowful gaze as Dekain admitted that this Xor-calculating-machine—the most intricate, highest-type machine he had ever built—certainly was a failure. Never again to be trusted with service. A thing which now was only useless metal.

"Heaven knows, you're right, Captain," Dekain was grimly saying. "They'll be no financial loss to your owners. My guarantee stands back of all my products. I'll de-fuse him now and then you can smash him. No, I don't want to salvage any of the parts—there's something wrong in them, that's evident."

Xor, in his chair, had been shoved back from the control board. A human pilot was handling the ship now. In the center of the turret, with his two arms dangling at his sides and the third inert in his lap, he sat with his eyebeams quivering. Like a human condemned to death. Only the Asturian Ahli—and undoubtedly that hiding Asturian stowaway—had been killed. But these accusing humans weren't thinking of that. Why would they?

"Keep your weapon on him," Dekain added tensely to the guard who now was close by Xor's elbow. "I'll de-fuse him—"

Almost like a man being condemned to

death. . . Xor's wavering eyebeams met Barbara's sorrowful gaze. She was sorry for him. If only she could understand.

The fuse-plug came out. There was a little hissing click within Xor. He could feel all the tiny wire network of his reaction-ganglia going dead. But his consciousness seemed to remain faintly, so that he knew he was slumping in the chair, with his eyebeams fading. This, he knew, was his death. The heat in his brain-grid cells still remained to give him this faint consciousness. But the cells were cooling. Soon everything would be gone. . .

He heard Dekain's voice, faint and distant as though very far away. "All right, men. I guess you can smash him up now."

He wished they wouldn't do that. He wished they would wait just a little while —and that maybe Barbara wouldn't see it. . . Then he was conscious of a cry. Someone was arriving in the turret. But he couldn't see who it was, or what was happening. His eyebeams were weakening so that everything was a blur. Sounds were faint as though far away. His cooling brain-cells made all his thoughts go numb, jumbled.

There seemed a commotion here in the control turret. But every instant it was harder and harder for Xor to tell what was going on. He fought to see and to hear. All so useless! He was almost gone now. . . The end of everything. . .

AND suddenly the scene in the control turret was incredibly clear! Excited group of humans. The Purser was here, telling what he had found, telling it over again, to passengers and some of the ship's crew who had crowded here to hear it. The Purser had inspected, down in the hold, those twenty coffin-like boxes of Ahli's baggage. Their lids were unlocked. Each of them had air-mechanisms inside. And in each there was an armed Asturian man! Bandits hiding there to seize the ship! All of them were dead now, mangled by the *Starflight's* terrible acceleration.

"And I searched Ahli's sleeping cubby," the excited Purser was saying. "Found this letter—you remember that brother of Ahli's, Mr. Dekain? He was on his way to see you in your aircar, and it crashed? Here's proof that that damned villain was going to try and abduct your daughter! They were going to hold her as a hostage, to force you into secretly giving the Asturians some of your war materials!"

Oh they knew it all now! . . . And Xor recalled, now to himself, how he had heard Ahli giving instructions to that villainous brother before the aircar started—that was why he had crashed it. . .

"And this Xor-robot of mine—" Dekain was exclaiming. "Why—good Heavens, it's obvious he did that to save Barbara. And he accelerated our ship, don't you see, to kill these damned bandits—"

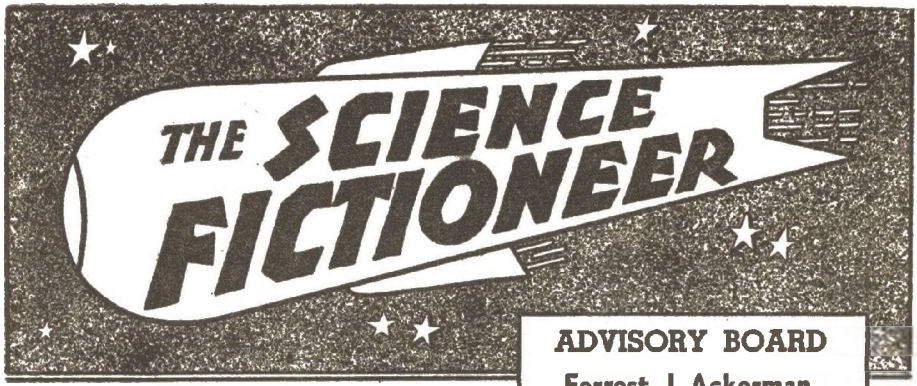
Oh, they realized it all now! They were all staring at him with admiration, as he sat up in his chair with his interior current again flooding strong within him. And now here was Barbara, coming to put a hand on his metal shoulder.

"Why—why Xor," she murmured. "I'm so glad. So you did know about things that only concern us humans, didn't you?" Then she was stammering, "Why —why, I guess I ought to thank you—"

Then the human pilot had moved from the *Starflight's* controls, and they shoved Xor and his chair back into position. Deftly his prehensible little fingers slid over the keys. His brain clicked and buzzed with the intricate mathematical calculations to get back on course.

And with it all, mingling in his mind there was a great feeling of pride. Everybody knew now that he was a thing almost human.

THE END



Official Organ of
The Science Fictioneers

News From Our Branches

The Miami Valley Science Fiction Club has been chartered as Branch No. Seventeen of *The Science Fictioners*. The initial membership of this group is five; it is hoped to increase it. All members in Dayton, Arcanum, Greenville, and surrounding places in Ohio are requested to communicate with Glen Broughman, 204 East George Street, Arcanum, Ohio.

The Philadelphia Science Fiction Society, Branch No. Six, asks that all science fiction fanse residing in or around Philadelphia communicate with Robert A. Madle, President, at 333 East Belgrade Street, Philadelphia, Pennsylvania. Meetings are held every two weeks; all interested persons are invited to attend.

Art R. Sehnert, Secretary of *The Lunarites*, Branch No. Eleven, informs us that due to two of the members having moved out of town, the club suffers from a dearth of membership. However, he states, "We have several other stf. fans lined up here for membership, and we really hope to make something of this, the first deep south chapter of *The Science Fictioneers.*" Member Sehnert may be reached at 791 Maury, Apartment 1, Memphis, Tennessee.

Other branches of *The Science Fictioneers* exist in Los Angeles, California, Chicago, Illinois, New York, New York, Westwood, New Jersey, Toronto, Ontario, Baltimore, Maryland, Sydney, New South Wales, Denver, Colorado, Chelan, Washington, Detroit, Michigan, Elkhorn, West Virginia, Long Beach, New York, and Oakland, California.

Proposed Branches

Ray J. Sienkiewicz, *Science Fictioneer* Number 280, writes, "Hear ye! Hear ye! Let it be known that Ray J. Sienkiewicz, alias "Rajocz", is waiting for communications from all Scrantonians interested in organizing a Scranton science fiction club, tentatively titled *The Scranton Fantasy Society.* Let it also be known that all interested may communicate with him through any or all of the following means: Call personally at 312 East Elm Street

and ask for Number 280; write a letter to Number 280 at that address; telephone 2-2554."

Gene Frank Autry informs us, "Dale Hart and I am trying to get a rather loose-knit organization started here over the state of Texas, and would appreciate anything you can do for us. My address is 3108 Gaston Avenue, Dallas, Texas."

Harry Harrison, 141-45 78th Road, Kew Gardens, New York, writes, "I am a member of *The Science Fictioneers* and much interested in fan activities. I am interested in organizing a branch here in Queens County. Will you please place this information in a forthcoming issue of *The Science Fictioneer?*"

Others who wish to form branches in their localities include: Roy Cameron, Jr., 1021 Chestnut Street, Hamilton, Ohio; J. F. Gaillart, 731 Keith Avenue, Anniston, Alabama; Harry Warner, Jr., 303 Bryan Place, Hagerstown, Maryland; John W. Olsen, 2525 Court Street, Baker, Oregon; Milton A. Rothman, 1730 P NW, Washington, D. C.; Harry Schmarje, 318 Stewart Road, Muscatine, Iowa; Phil Bronson, 224 West Sixth Street, Hastings, Minnesota; Glen E. Grosbach, 5155 North New Jersey, Indianapolis, Indiana; David G. Miller, Box 324, Lake City, Florida; Jesse Levy, 119 Griffith Street, Jersey City, New Jersey; John Patch, New Concord, Ohio; D. L. Hetrick, 154½ Robinson Street, Binghamton, New York; Ned Will, 98 East Tulane Road, Columbus, Ohio; and Paul H. Spencer, 88 Ardmore Road, West Hartford, Connecticut.

Fan Magazines

THE DAMN THING, published every six weeks by T. Bruce Yerke, 1223 Gordon Street, Hollywood, California; 10c. Prominent on the cover of this is a "List of Persons Attacked in this Issue." Attacking persons and things in science fiction appears to be the principal object of the magazine; if you like vitriol, not too judiciously applied, this is where you'll find it.

FANTASCIENCE DIGEST, published bi-monthly by Robert A. Madle 333 East Belgrade Street, Philadelphia, Pennsylvania; 15c. Having cut down on the fiction published, and increased the amount of humorous material, the book seems considerably improved—and it was pretty good to begin with.

FRONTIER, published bi-monthly by Donn Brazier, 3031 North 36th Street, Milwaukee, Wisconsin; 10c. This is the organ of The Frontier Society, an association of science fiction fans who are interested in research in the out-of-the-way sciences. The magazine is highly interesting, but the second issue is not an improvement over the first.

FUTURIAN OBSERVER, published fortnightly by Bert F. Castellari and William D. Veney, 10a Sully Street, Randwick, Sydney, N.S.W., Australia; 20c. Contains little news that concerns American fans, but is very interesting as a picture of what gones on in Australian fandom.

FUTURIAN WAR DIGEST, published monthly by J. Michael Rosenblum, 4 Grange Terrace, Chapeltown, Leeds 7, England; 5c. This is mostly devoted to personal items, and to the affects of the war on English science fiction.

LE ZOMBIE, published monthly by Bob Tucker, P. O. Box 260, Bloomington, Illinois; 5c. Entertaining as always, and still about the best of science fiction's humorous fan magazines.

NEW FANDOM, published occasionally by James V. Taurasi, 137-07 32nd Avenue, Flushing, New York; 10c. Contains interesting departments on the history of science fiction, commentary on the professional magazines, and so forth.

SPACEWAYS, published every six weeks by Harry Warner, Jr., 303 Bryan

Place, Hagerstown, Maryland; 10c. The dazzling array of material in their Anniversary Issue is admittedly out of the ordinary, but this magazine is consistently high in the ratings.

SUN-SPOTS, published monthly by The Solaroid Club, 31 Bogert Place, Westwood, New Jersey; 5c. The quality of the material in this book is good, and improving; but the typography is poor. A few improvements in that line would make this a top-notcher.

VOICE OF THE IMAGI-NATION, published bi-monthly by Forrest J. Ackerman and Morojo, Box 6475 Metropolitan Station, Los Angeles, California; 10c. As ever, this periodical of letters and oddities is of great interest to the old-time fan who wants to know what his contemporaries are thinking and doing. New readers might not find it so entertaining.

With the Science Fictioneers

On November 10th *The Philadelphia Science Fiction Society* sponsored its Annual Philly Conference. It was attended by 37 eastern fans and writers including such prominent science fiction celebrities as Harry Walton, Lloyd Arthur Eshbach, Alexander M. Phillips, Julius Unger, Art Widner, Milton A. Rothman, Sam Moskowitz, Jack Speer, and many others. The officers of the affair were; Chairman, Alexander M. Phillips; Secretary, Robert A. Madle; and Sergeant at Arms, John V. Baltadonis. The Fifth Annual Philadelphia Conference was important in one respect if in no other; it proved fandom intends to support the 1941 Denver Convention and refuses to tolerate any competitors.

Congratulations are in order for Science Fictioneer Advisor Bob Tucker, of Le Zombie fame, who recently became the proud Pop of Robert Wilson Tucker. . . . How many of you know that we have amongst us a certain Gene Autry of Dallas, Texas? . . . . George Wetzel (Baltimore), newly active fan, has announced that his fan magazine will be titled *The Universal Hound*. It appears that Baltimore will be a little more active in fan affairs hereafter.

Speaking of activity, watch *The Philadelphia Science Fiction Society* go to town! Not so long ago it appeared that the PSFS was just about through however in recent months the membership has picked up considerably and we are about to launch our largest project; the PSFS Science Fiction House! More about this later.

Cyril Kornbluth (Brooklyn) arrived at Philadelphia for the Conference on November 3rd, one week too early. It seems that somebody had been spreading false rumors. . . . While he was in Philly, Kornbluth and your columnist tabulated the number of really *active* fans there are; 58 was final answer. Of course, there are several thousand inactive fans. . . . Don't forget; any news items should be sent to 333 E. Belgrade Street, Phila., Pa. —Robert A. Madle.

A partial list of new members will appear in our next issue.

THE SCIENCE FICTIONEERS
APPLICATION FOR MEMBERSHIP

The Science Fictioneers
210 East 43rd Street
New York City.

Sirs:

I am a regular reader of science fiction and would like to join *The Science Fictioneers*. I enclose a stamped, self-addressed envelope for my membership card.

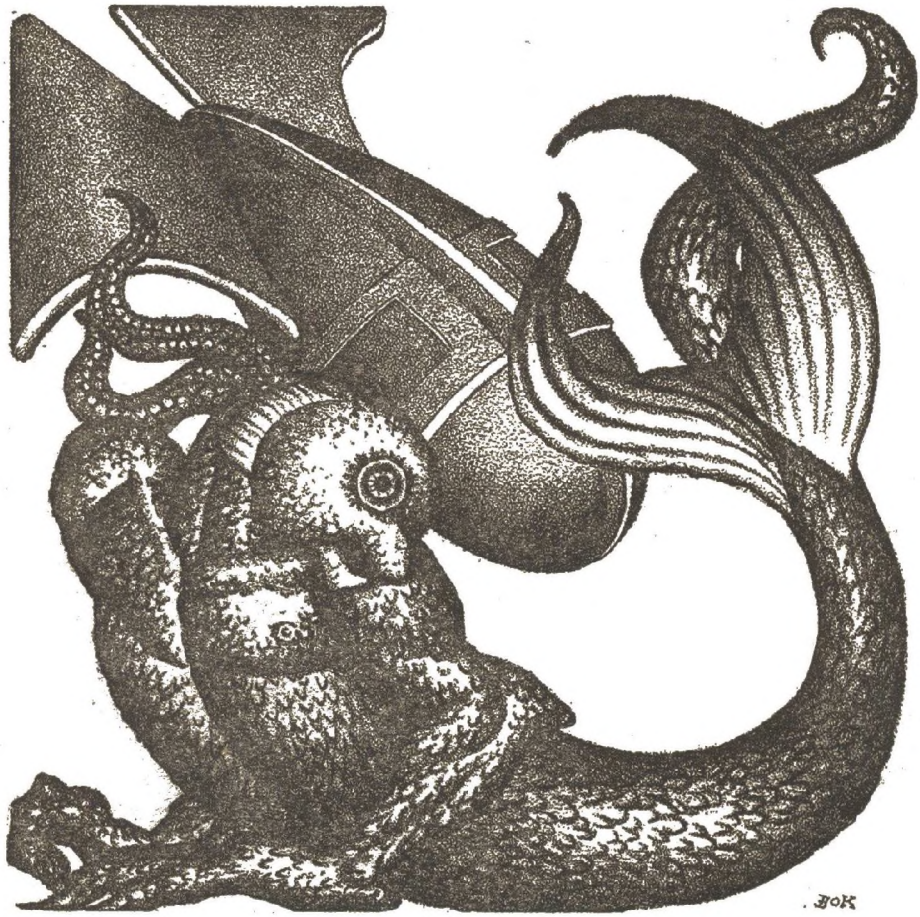
Name _____

Address _____

City & State _____

Occupation _____ When Born _____

A VOYAGE IN TIME



A Super Science Brief

By WARREN F. HOWARD

CHALMAR broke the dramatic silence he himself had caused. "Let's go out and look at the time-machine," he said heavily. "Once you see how well it is made you will have no further fears for my safety."

He led the way outside, his five students silently following him, stricken dumb by the statement he had just made —that he proposed to make a trip through time.

Outside, in a cleared space, Chalmar thrust out an arm and pointed. "There!" he cried. "This is it—my time traveler!"

The five students looked, and felt slightly reassured. That which Chalmar indicated was big and powerful-looking, strong enough surely to withstand any accident

that the dangerous voyage might bring on. It was a ship of sorts, torpedo-shaped, constructed of thick slabs of the strongest metal they knew.

Chalmar beamed upon them. "Does it seem good to you, sons?" he asked anxiously.

The youngest of the youths answered slowly, "I do not know, Chalmar. It looks much like an ordinary flier to me. How will it travel through time?"

"It is an ordinary flier, Kolop," replied the older one. "A very strong and powerful one, yes, but still it is a flier. And yet it can travel through time. That will be accomplished by a device of my own invention, upon which I have been working, as you know, for twelve years. That device is inside the ship, and I shall say nothing about it. It may not work. When I come back, and am sure that my theory is right,—that will be time enough to explain it to you."

"But you must not make the trip yourself, Chalmar!" gasped Kolop apprehensively. "One of us must go instead. If it fails. . ." He stopped and tried to imagine a world in which there was no fatherly, wise old Chalmar.

Puk, another of the students, took up the battle. "Let me go, Chalmar!" he cried. "How can you know what dangers you will encounter? An earthquake may come and you may find yourself trapped in a wall of rock! Have you considered that?"

"You have a mind, Puk," Chalmar said fondly. "Yes, I have thought of that. Look, all of you."

He touched the side of the torpedo-like hulk which lay quiescent in the thick, damp mud of the yard. Running his hand along a thin rib of metal, he said, "This fin, and those propellers in the back"—he indicated a pair of incredibly tiny thrust-screws—"will solve that problem. I shall not touch the time-control until I am a full mile above the earth. Then let the ground rise or fall as it will—I shall be well over it!"

Puk drew back, but another of the students reached forward and touched the side of the vessel. "The pressure, Chalmar," he said timidly. "Are you sure these walls are strong enough? So near to the Top, a mile high—"

"They are amply strong, Ambrick." There was a long pause.

"You will find all the notes I have decided to release among my possessions," Chalmar said at length. "The information that I have thought should be kept secret is—secret. I have destroyed such notes as gave too good a clue to my process.

"I am going to leave soon—within a few moments. All is ready. I think I shall be gone for a few days. Probably I could return to this very moment, if I chose,—but I cannot know the accuracy of my controls until I have tested them."

"To what period are you going, Chalmar?" asked Puk, resigned to the inevitable.

"I cannot say with exactitude. It will be in the past—for various reasons, that presents less problems than a trip to the future. Just how far back I shall go I do not know. More than a thousand years, I think, but less than a million."

Chalmar peered up into the black sky, utterly dark and starless, though no clouds were visible. It would have been a fearful sight to Twentieth-Century human eyes. Then, with no further words of parting, he quietly entered the ship and started the motors that would bear him up and up for the beginning of the trip to the past. . . .

OTTO HANDEL trod lightly on the frosty ground of his Oregon farm, for all his two hundred-pound bulk as he regarded, from the hill on which he stood, his entire farm. The sudden thaw of last night had given him his first chance to walk slowly around its broad expanse,

so vast from the hilltop. For months it had been too cold for anything but the most hurried tours of inspection. Now the brilliant sun was pouring heat into the ground. He stabbed dirt experimentally with his foot. Already it was becoming soft and muddy.

He wandered slowly across the field, into his private patch of woods. The air was sweet and rich. And in the woods it was more delicious still, with the faint, cool perfume of the firs and pines.

But there was also the hint of another odor.

An odor, Handel thought, that belonged in no farm a hundred miles from a sea-coast. He stopped in his tracks and sniffed. Fishy, it was, and reeking of corruption.

Handel stared around for the source of the vile smell. It was strongest ahead of him, somewhat to the left. He followed his nose straight to the spot.

Which was not the heap of decaying fish, or remnants of somebody's early picnic that he had expected. It was something a great deal more improbable than that.

It was a large mass of metal that once had been a ship of some sort. Seemingly it had fallen from a considerable height. Could it be some new type of bomb? An explosive shell that might go off at any moment?

He advanced upon it, staring. It became certain that it was the source of the fishy smell, this long, bent, broken form that might once have been cylinder-shaped. It was not a meteorite, he was sure, for none but intelligent, human hands could have created that beautifully, though oddly, tooled surface.

It was squashed, warped, broken in a hundred places. Handel touched the metal and felt that the fall must have been great indeed. The metal was *strong,* and joined in a solid shell by an artisan who knew his business.

It had had a door once, though the door itself was gone, ripped from its hinges and cast to the ground elsewhere when the thing fell. But where the door had stood there gaped an entrance to the interior. Handel stood up to it and peered. He gasped and recoiled; then forced himself to go in.

This was no super-bomb dropped from a mysterious enemy airplane. For bombs, however odd they may be, do not have pilots.

Particularly they don't have pilots which are not human beings. Which, even when dead, crushed, and partly decomposed, resemble nothing more than some frightful monster from the sea's depths!

The odor was terrific in the confines of the ship. Handel clutched his nose between two fingers and stared at the shape huddled on the floor. It might have been the body of a merman, he thought. The upper part was very much human: it had arms and a face. The face was missing a nose, of course, but there were slits behind the temples that looked like fish-gills. And the feet—weren't there. Just weren't there. Instead, the thing had horizontal flukes, like those of a whale.

What a mess! Handel took his eyes from the mangled body and peered at the strange fittings of the craft. All were bent and broken: strange instruments and levers, buttons, rings.

The only rational thought in Handel's mind was that a being from another planet had come to Earth. That was impossible, of course; Handel didn't believe in life on other planets. But he also didn't believe in what he saw in that ship.

Moving around, he discovered one tiny thing that had escaped the general destruction. He examined it. It was a perfect cube of the same metal that had made up the hull of the ship. Much stronger and thicker, though, for it was not even dented. He bent down and suddenly noted a lever at one corner of the cube. He

fingered it curiously. It was, he found surprisingly easy to move. . . .

PUK drove his body through the dense water of the Deeps with powerful strokes of his porpoise-like flukes. Deep sorrow was vividly engraved on his face, sorrow and horror together. He shot himself at a low building; slowed and stopped with a quick motion of his webbed hands. He shouldered the door open and burst in upon Ambrick and Kolop, who were peacefully dining.

"Chalmar's ship has come back!" "But Chalmar is dead! Dead and—mutilated. Horribly. Something went wrong!"

"What! I knew it!" ejaculated Kolop. "I warned him. . . . How did he die, Puk? Could you tell?"

Puk grasped at a wall to steady himself. "It was horrible," he said, more calmly. "His whole body seemed as though it had—exploded. As though, somehow, he had come to an era where the Surface was lower. He—he must have fallen onto *dry ground!"*

"Dry ground!" Ambrick reiterated stupidly. "But—that does not exist! Chalmar himself said that. . . ."

"That the ancient myths were lies? That it is not true that our race once lived out of Water? Yes. He said so. But—" Puk smiled without mirth "—but he was wrong. And the proof of his error is here. It came back with Chalmar's own body. For in the time-ship was *another* body! A strange and grotesque body, unlike anything we could have imagined. It must have been incredibly fragile, for it was crushed, squeezed to a soft, compact hulk, as though the pressure of the Water were more than it could stand. It must have been an air-breather—out of the distant past."

THE END

CAPTIVES OF THE DURNA RANGUE

Brad Santon was only one man, and the fearsome Durna Rangue was vastly powerful and deadly. But his wife, Clea, was in their grip, and he had to dare the horrors of their catacombs to rescue her!

By NEIL R. JONES

CHAPTER ONE

The Tunnel's Secret

CLEA SANTON stood facing the Martian sunset, her pretty face bathed in its dying glow. Brown, wavy hair rippled to her shoulders. She was attired in smart, male attire. At her side hung an electric pistol. Across the valley's gathering mists, the dismal cliffs were already darkening.

Behind the girl stood the little rose-bordered cottage which she and her husband, Brad Santon, had built. From the cottage, a path led down into the valley. A smile lit Clea's pretty features, and she waved to the tiny figure ascending the winding pathway. It was her beloved Brad, returning from his lonesome duties at the huge mining machine.

Six months of earthly time had flown since Brad had met, loved and won her in far-off Colorado, across millions of miles of space on another world.

It was the year 2351. Ships of space had crossed to Mars and Venus. Peoples of the earth had found but little life on Mars. All intelligent creatures had long since died out on the little red planet. On cloudy Venus, however, conditions had been opposite. Venus teemed with all sorts of life, boasting a race of troglodytes still in the early stages of evolution. Both planets had immediately been subjected to colonization.

Brad Santon was descended from a long line of wanderers. On starlit nights, he had gazed longingly at Mars, the planet of new adventures and new conquests. His mind had been set upon a cherished plan, and Clea followed wherever the man she loved choosed to lead. In various localities of the little red planet, traces of mazinite, a new, precious metal, had been discovered. Minerology had been chief among Brad's studies at college. The possibilities of enriching Clea and himself had caused them to settle in this isolated, forbidden portion of Mars.

Facing their home, ominous gray cliffs across the valley frowned menacingly upon the two mazinite miners. The dismal cliffs were appropriately symbolic of the weird cult which lived in catacombs beneath the somber exterior.

The Durna Rangue, a hideous cult of superstition, scientific wizardry, horror and death, had lately been driven from the earth, their abominable practice banished forever. Escaping persecution, they had fled across space to this haven of refuge on the Martian world, burrowing deep into the towering cliffs. The Durna Rangue had grown out of witchcraft, hypnotism and universally condemned sciences.

Far from all colonizing settlements, in a section which seemed extremely undesirable for humanity in general, the priests of the Durna Rangue had reestablished their malignant order to continue once

more their insidious practices. The priests were reputed to be immune to the less violent causes of death, having gained an indefinite lifetime at a terrible cost. They had become cold, cruel and devoid of human instincts.

LIVING in the very shadow of their terrible neighbors, Brad and Clea worked the great mining machine. The machine functioned automatically down at the foot of the valley. The man and his wife had only to move it from one place to another. Day after day the mining machine ground away, digging the rock and soil, extracting and converting the mazinite into gleaming bars. It required little attention. The venture promised Brad and Clea a fortune. Together, they visioned the day of their return to lovely Colorado, far from the depressing proximity of Durna Rangue.

The sun buried itself beyond the gray peaks of the distant mountains as Brad came swinging up the trail to their cottage. He caught up his lovely wife in strong muscled arms, pressing her soft warm lips to his. Caressingly, she fondled his shock of dark hair.

"Only a month or less of digging here, Clea, and then the valley will be exhausted of its mazinite. We've already cleared up a tiny fortune."

"Then—Colorado?" she asked hopefully.

He nodded, smiling. Slim, white fingers clutched his neck in sudden fear as a frightful wail issued from across the valley.

Brad laughed. "You hear that every night at this time when the sun goes down—yet it always frightens you."

"Oh—Brad—I can't help it!" she sighed. "There's something I can't explain about it—there's a world of awful meaning in that cry, and it's terrible!"

Brad felt her clinging form shudder. "We have been here over three months," he assured her, "and nothing has happened to us—only those birds come occasionally. They do no harm. Just a bit of silly twaddle they have over there."

"I know, Brad, but—"

"Are you weakening, dear?" He stared seriously into her troubled eyes. "You know, we were warned against the mind influence these Durna Rangue priests possess. We brought mind protectors, but we haven't used them yet."

The girl drew herself up stiffly, snapping her fingers contemptuously at the barren cliffs limned in ghostly relief against the twilight.

"I don't need a mind protector!" she exclaimed imperiously. "They have no hold on me whatever!"

Brad laughed, heartily pleased. He drew her close and kissed her again. "I'm hungry," he told her. Brad turned and entered the cottage.

Martian dusk is short at its best, night descending almost magically. Clea stretched out her arms to the evening star which gleamed above the distant horizon. Like a green gem, it glittered against the velvety blackness. Raising back her pretty head, Clea regarded the earth. To her, it was home, the loveliest planet of all. She stood there a long time, her face upturned to the starry heavens. A flickering glow of ghostly effulgence floated dimly above the valley. Again there came the soul rending, nerve shattering cry of the terseg birds which always demoralized Clea's composure. Turning, she fled into the cottage to the comforting arms of her husband.

THE next day, a space ship came down out of the blue sky. It was not a space craft of the Durna Rangue. The ship dropped into the valley.

"They're coming for my supply of mazinite," said Brad.

And so it proved to be. The space ship came to rest near the grinding, rumbling

mining machine. The lone operator stepped out. Instantly, Brad recognized his friend, Kern Hilton. Kern was an adventurer of space, his home wherever he hung his hat. At the time, he was working in the employ of the Mazinite Co., Inc. of Chicago. It was his duty to pick up the mazinite metal from the various portions of Mars where it was being mined. Kern's occasional visits were welcomed by Brad and Clea, for the two led a lonely life.

"Brad," he said, "I've brought you the mazinite detector and visioner you asked me to bring when I was here last."

"Good. It will certainly help us locate the remaining deposits here in the valley, Kern."

"How are your neighbors behaving?"

"Durna Rangue?"

"Yes."

"They haven't troubled us any."

Kern Hilton shook his head a bit doubtfully. "Keep on your guard, Brad. They're treacherous and cunning."

"I am not afraid of them." Brad patted the electric pistol hanging at his side.

"Well, good luck. I'll be seeing you again."

Kern Hilton's space ship soared up out of the valley and into the blue sky, disappearing rapidly.

The very next day, Brad, with Clea's aid, set up the mazinite locater near the mining machine. Applying his eyes to the visionary piece, Brad found that he could look directly into the ground for several hundred feet before the scene grew indistinct and hazy. Bits of mazinite stood out sharp and clear. All other metals and objects foreign to the soil were visible in ghostly outline.

Clea took a look. Brad shifted the field of view by tilting the machine slightly. Clea gasped in sudden surprise, her eyes widening.

"Brad! There's something moving down there—far below!"

Brad Santon took his wife's recent position, gazing through the solid ground upon a strange scene several hundred feet beneath the valley floor. Through the misty haze, Brad saw what appeared to be a thin tube. He recognized it as a tunnel. The tunnel was filled with moving objects of various shapes and sizes. Following its course, he saw that the tunnel broadened into a cavern.

Gropingly, the young miner reached for a small lever on the detector-visioner, pulling it slowly from button to button, bringing the scene closer. He looked upon a strange sight—one which froze him with morbid fascination. Clea saw horror written upon his features.

"What is it?" she asked, laying her hand upon his arm.

He wrenched his gaze from the machine. Clea took his place.

"Durna Rangue!" she whispered breathlessly.

"Yes. I never knew before that they had a tunnel under this valley. It must be fully three hundred feet below us."

"Oh—Brad! What frightful things they're doing!"

CLEA SANTON was unable to tear her eyes from the horrid scene below her. In the center of the cavern were several coffins. Floating in a surrounding liquid of each coffin was a human body. Grim, white-faced priests lifted the inert bodies from their funeral bath, handing them to grotesque attendants hovering near. The attendants, for some reason or other, failed to show up clearly, but it was evident that they were not human beings. Their dim forms suggested distorted creations from the biological laboratories of the priests.

"Clea—did you see the face on one of those corpses—and recognize it?"

"Yes. Do you think it is he?"

"It is—yet it doesn't seem possible."

"Chancellor Zaym of Venus."

"How did they ever get him? He's

been gone three years, now, since his ship was lost in space. They feared he had been drawn into the sun."

"He might better—than where he is now."

"What are they doing?"

Clea drew back away from the machine into which she had been looking. Like a magnet, Brad was drawn to the lens. The bodies had all been taken from their caskets. They were put under a strong light. A priest of Durna Rangue stood over each corpse, regarding it with a glassy stare. Brad felt his blood tingle as he regarded the devilish procedure.

"They're not dead, Clea! They're walking!" . . .

That night, in their cottage overlooking the valley, Clea and Brad discussed what they had seen that afternoon.

"We must notify the authorities, Brad."

"How? If we radio, the Durna Rangue will pick up our broadcast."

"There must be some way!"

"I've got it! I'll call Hilton! He'll come here in no time and can bear the message back!"

"Do you know where to find him?"

"I have the wave length of his ship—if he hasn't left Mars yet."

"Think of it, Brad! We've found Zaym—long lost Zaym! The news will stagger three worlds!"

"And—"

Brad stopped suddenly. A slight sound had set his jarred nerves to attention.

"What was that?"

Clea ran to the window. Through the gloom a terseg flapped away over the valley on dark wings. The evil creature had been listening at the window of their cottage. But Clea did not see the bird. She laughed nervously as a small animal on six legs scuttled away in fright.

"It was only a calo," she assured Brad. "The creatures are always prowling about my rose garden. I guess they like the smell of the roses."

Again she laughed, but it produced only a jarring effect. At another time, her laughter gave the cottage a pleasant touch of home.

"I've set a few traps for those caloes," said Brad. "They're getting to be a nuisance."

Brad Santon gained communication with Hilton, mentioning casually that he needed some new supplies for the mining machine, telling Hilton exactly what he needed.

That night, Brad's mind was assailed by weird dreams, unworldly nightmares. In one, he believed that Clea had succumbed to the lure of the tersegs—that the priests of Durna Rangue held her in their power.

He turned over in his sleep—then came fully to his senses. With that apprehension which always takes hold of the awakened dreamer, he rapidly took stock of his surroundings. Clea was gone! Her bed was empty, the covers thrown back from the wrinkled sheets where she had been sleeping!

CHAPTER TWO

In the Catacombs

FEAR clutched at Brad's heart. Hastily he arose, running out the doorway into the Martian night. Stars gleamed above him, scattering the sky with their fine points of brilliance. The thin atmosphere was crisp and clear. Across the valley, the barren cliffs were bathed in an eerie glow of ghostly radiance. Tersegs flapped dismally about, murmuring to one another in their circling flight.

Brad ran to the edge of the hill and looked down into the valley. A gleaming ball of fire, slightly larger than the size of a human head, floated upwards toward him. Down the trail, walking into the valley, Brad saw Clea. Tersegs flew thickly about her, their voices cooing gently.

Ahead of the girl floated several of the gleaming fire balls. Her lovely form, scantily clad, was visible in the moonlight of Phobos which rode high in the Martian heavens.

Impulsively, Brad Santon sprang down the trail after her to bring her back from the doom peril which held her hypnotized. The fire ball confronted him, halting his advance. Brad's muscles grew rigid, immovable. Wicked eyes stared piercingly at him from the flaming globe. A deep moaning arose from the cliffs, rising to a blood curdling wail. The eyes in the floating fire ball seemed to grow larger, rushing down upon Brad. They filled his vision, his senses, his mind. Consciousness left him. He reeled from his feet, falling in the dewy grass.

Brad awakened. Someone was shaking him vigorously. He was aware of a sharp pain about his ankle. The sun shone down upon him. He heard Hilton's voice.

"Come out of it, old boy! Tell me—what happened?

Brad's mind was dazed. A headache assailed him. Blood oozed from a wicked cut just above his ankle. He rubbed his eyes, gathering his mental faculties. His thoughts leaped instinctively to Clea.

"Was it a dream, Kern, or is Clea here?"

"She's gone, Brad! I found you lying here with your leg in this trap!"

"They've got her—those devils of Durna Range!" Brad cried, stumbling to his feet. "We must get her back!"

"Just a minute," pleaded Hilton. "What's it all about? How did they get her—and why?"

Briefly, the young miner told of yesterday's discovery — that the Durna Rangue held Chancellor Zaym in a state of living death. He related why he had really sent for Hilton and how he had awakened from a hideous nightmare to realize the worst of his dream fears. He told how the fire ball had overcome his senses—that he knew nothing from the time he had lapsed into oblivion.

"One of those damned tersegs must have overheard Clea and me," finished Brad.

"When I flew down, I found you with one leg in the trap."

"It's one I set for the caloes," said Brad, staring at the worn trap post, then at his bleeding leg. "I guess if it hadn't been for the trap, you'd never found me here, Kern."

"What do you mean?"

"The trap wouldn't ordinarily cut into my leg like this—neither would it wear the post like it has. I must have tried pretty hard to follow that fire ball."

"Into their clutches," added Kern.

"Exactly."

"We'll radio for help," suggested the adventurer.

TOGETHER, they entered the cottage. The radio-television equipment was a complete wreck. Hurrying down to the valley, their growing fears were fully confirmed. The mining machine was partially wrecked, while the mazinite detector was a mass of junk.

"Pretty thorough, I'll say," was Hilton's comment.

"We'll get Clea ourselves!"

"Wait—Brad! I have an idea! I'll radio from my ship—then we'll see what we can do alone!"

In Kern's space ship, they met another obstacle. Kern's equipment was dead. A fluttering of wings startled them as a terseg flew out the doorway.

"Curse them!"

Hilton raised his gun and fired. Blue flame spurted silently from his pistol. The evil bird fell in its flight like a plummet, electrocuted.

"There's no time to lose!" urged Brad.

He remembered the living corpses he had seen immersed in the coffin solution down in the underground tombs of Durna Rangue.

"Get a pistol!"

"And mind protectors, too," added Brad. "We'll get Clea back if we have to kill every damned devil over there!"

As if in challenge, the melancholy wail broke out, its eerie sound echoing down the valley from the gray, somber cliffs. It died away in a low moan.

In the space ship, Brad Santon and Kern Hilton crossed the valley. Tersegs sat vigilantly upon the rugged promontories. They voiced strange notes at the space ship's approach, several of them flying down into the maw of a gaping pit.

"There's where they enter in their space ships," said Brad. "There's a foot ladder running down the inside."

"We'd better take that," advised Kern, "and leave the ship here. Can't tell what we're likely to run into down that place."

"Snap on the radium lights in your belt. Looks pretty dark down—"

Up out of the darkness of the pit issued the deathly cry, warning them not to enter the forbidden place. The sound was disquieting. It chilled their blood. With electric pistols gripped tightly, the brain protectors strapped over their heads, they resolutely entered the pit. Brad descended first, Kern Hilton just a few rungs after him.

Step by step, they lowered themselves into the dark shaft which led to the catacombs. Tersegs flew thickly about them, flapping their wings in the faces of the two men. Hilton shot several of them before the rest desisted. They chattered warnings.

"Go back! Death waits for you!"

"Give me my wife, and we will go!" replied Brad.

Silence followed his speech. The tersegs disappeared entirely. A depressing gloom and an intense stillness surrounded them. They were becoming weary of the long descent when Brad's radium light revealed a tunnel opening which joined the shaft. He notified Hilton of his discovery. Together, they swung off the ladder into the passage, pistols ready for anything which might confront them. The passage seemed laden with the chill of the sepulchre. Aside from the echoes of their footfalls, there existed only lifelessness and silence.

THE two mortals who dared the wrath of the Durna Rangue followed the tunnel. Behind them, they suddenly heard a dull, grating thud.

"What was that?"

They walked back a short distance to see if they were being stalked. A great panel of rock had fallen across the tunnel.

"I guess we won't go back in that direction."

Continuing along the tunnel, they found another formidable barrier blocking their advance. Seemingly from out of the very air they breathed came a harsh, mocking laugh. Kern and Brad flashed their lights about. No one was in sight. A dismal sighing arose at their very elbows. The blackness of the tunnel became suffused with light, a smoky, drifting cloud of vapor which slowly filled the tunnel.

From out of a dark corner, a pair of wicked eyes gleamed at them—then another pair. Only the eyes were visible. The eyes arose to a level with those of the two men, coming toward them slowly, growing in size. Two heads in which the eyes were set drifted into view out of the curling vapor—then Kern and Brad saw the bodies on which the heads were set materialize from out of the semi-gloom.

Tantalizing odors issued from the vapor. The two men stood stock still in fascination, drawn by the hypnotic eyes. The priests of Durna Rangue, hands outspread before them in ceremonial gesture, approached their intended victims.

"Stop!" rapped Brad with startling suddenness. "Else you'll die!"

The priests halted a bit uncertainly, plainly surprised at this opposition which they had not expected.

"Where's the girl you fiends lured here last night?" demanded Hilton. "Take us to her—quick!"

The priests hesitated, taking stock of the situation. They regarded the mind protectors curiously, then glanced at one another knowingly.

"Come!" spoke one of them in sibilant tones. "You may have your wife back if you wish."

"This way," said the other gray shrouded figure.

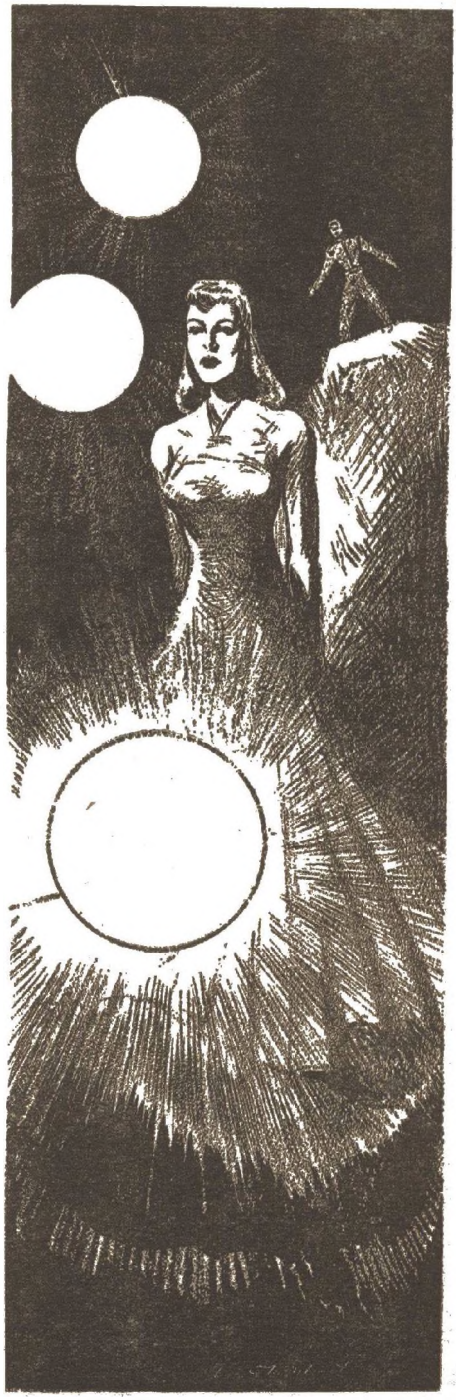
As if by magic, a section of the tunnel wall slid back, allowing the pale countenanced priests to walk through. Brad and Kern followed, still on their guard.

"If there's any treachery," commenced Brad, "I'll—"

With a quick motion, one of the priests pulled back a knob in the wall. The floor beneath the two followers fell inward. Kern Hilton shot downward out of sight. Brad tottered for a moment on the brink before he followed his friend. As he plunged downward, his pistol spat death at the cruel priests who had lured them to this trap. Brad flew down a polished chute behind Kern Hilton.

They landed in the center of a broad room which was dimly lit. They picked themselves up. From all sides, strange figures regarded them questioningly—then closed in upon them slowly. They were frightful monsters, dreadful creatures from the laboratories of the evil cult. Their bodies were those of gigantic beetles while the arms and legs were human. They were hybrids, half man and half insect.

Mandibles grated together, opening and closing in greedy expectation of the prospective feast. Back to back, the two men shot down the hideous creatures, the latter piling over one another in their eagerness to be at them. Blue, flashing death mowed them down, but not fast enough. Three remaining monsters leaped over the bodies of their fallen counterparts and upon the



two defenders before the latter found it possible to bring their weapons into play.

BRAD grappled with a black, horny body, keeping his head clear of the snapping mandibles. He felt human arms close tightly about him. Kern was engaged with the remaining two, and he was rapidly being overcome. Kern still held his pistol, but he dared not use it while he stood in contact with the hybrids. One of them sprang clear for a moment to get a new hold. The adventurer fired.

Strong mandibles closed about Brad's throat. In desperation, the young miner released the black, insect body, tearing the mandibles apart with both hands. The muscles stood out upon his arms. The mandibles bent slowly apart. Fingers clutched at Brad's wrists. Legs threshed wildly against him, but he clung with bulldog tenacity. With a terrific wrench, he split the mandibles far apart. The hybrid whistled and rattled in agony, going mad with the pain.

It was Hilton, rolling about on the floor with his opponent, who took quick aim and fired. His shot bowled over the enraged hybrid Brad had disabled. Brad sprang to the assistance of Hilton. Together, they succeeded in killing the remaining creature.

The dead hybrids were scattered all about them. They were in a low ceiled room. The only entrance appeared to be the chute in the ceiling. They examined the dead hybrids. The insect men were extremely repulsive.

"I've heard of such things, but I never gave them credit for existing," said Brad.

"Look—there's water over there!" Kern pointed to a small pond which lapped the further wall of the chamber.

"There's a light shining into it. These things we just killed probably drink at this place."

"Where's the light come from? No light in this place."

"From the other side. This watering hole is probably the one way of getting in and out—unless you use the chute to come in here."

"Then what's on the other side of the wall?"

"You swim, don't you?"

"Sure!"

"Let's go!"

Kern Hilton prepared to dive.

"Wait!" cautioned Brad on second thought. "It may be a false lead. We don't know what's over there. Let me go first. I'll come back and tell you."

Without waiting to hear Kern's protest, Brad dove into the water and headed underwater for the illuminated opening. Kern waited. A minute later, Brad returned, his head breaking the surface.

"Come on," he said. "The coast is clear."

Together, they dove under the water and through the opening, coming up into a broad chamber brilliantly lit with a greenish glow. Wiping the water from their pistols, they started for the doorway at the other end. Kern stopped suddenly and gripped the arm of his friend.

"Look, Brad!"

Brad did look, and what he saw almost caused him to drop his gun in surprise. Several human skeletons were coming toward them from the doorway. Kern Hilton raised his pistol and fired.

CHAPTER THREE

Among the Living Dead

WHEN Clea Santon came to her senses, she found herself lying on a slab of stone. A high, rocky ceiling was the object of her attention. She turned her head sideways. Beside her on another slab rested a body. Timidly, she reached out and touched it, withdrawing her hand quickly from the clammy corpse. Impulsively, she drew away, shuddering.

Clea looked around. Another cold body flanked her.

Leaping from the slab, she screamed in terror, drawing away in horror from the still figures which rested row upon row in the dismal crypt. Not a living person was in sight. Faintly there came to her ears tinkling noises from a distance. She ran through a narrow corridor out of the hideous room into another chamber.

Silent forms worked at benches and beside weird apparatus. Instantly, the girl feared that she was discovered. A woman, her face an expressionless mask, came toward Clea—walked past her as if she had not been there. None of the laboring groups appeared to notice her.

Clea recognized them for such as they were. She pitied them. They were neophytes of the Durna Rangue, people who had been lured, bought or else stolen. Most of them had sold themselves to the hideous cult in trade for the daily hours of synthetic life granted them during their sleep.

Most of the neophytes were busy concocting a liquid. Others worked among many receptacles, apportioning and arranging various portions of the liquid's components before they were mixed. The girl stood by and watched. No one spoke to her. Several of them retired to the chamber in which she had awakened from the spell cast upon her by the priests. They returned, bearing one of the still, lifeless forms on its stone slab. Carrying the body to the side of a large tank into which they had poured the liquid, the neophytes lowered it into the fluid. Irridescent waves of light shimmered through the contents of the tank. Bubbles sprang to the surface, bursting into golden balls of light which flashed out, leaving a smoky haze in its place.

One of the neophytes brought a large jar. When the silent explosions of the golden bubbles had ceased, releasing sufficient of the vaporous material to hide the changing colors of the liquid, the neophyte lowered the jar to a level with the cloudy mass. As if drawn by a magnet, the haze flowed into the jar in a gradual moving stream until it had all disappeared.

The neophyte capped the jar while others removed the body from its bath, and took it from the room.

Clea soon found there were no visible means of escape. The corridor ended in a large door which was securely locked. High above the door, far out of reach, she saw a round opening, large enough to crawl through if one might reach it.

The mellow note of a great bell tolled twice. Fully one quarter of the neophytes filed out of the working chamber and descended into the tomb. Clea watched them, following a short distance behind. They walked down between the rows of coffins. One by one, they each climbed into a coffin, sinking out of sight in the thick vapor.

The neophytes became wrapped in their synthetic life which was accorded them at periodic intervals while they slept. To the neophytes, their coffin bath was the real life, their existence outside the heavy vapor merely a period of sleep—lost consciousness. If, in their synthetic life, they remembered anything which occurred in the caverns of Durna Rangue, it was merely as a dream illusion. They were always under control of the priests of the insidious cult.

SUDDENLY, several of the coffins glowed with a strange brilliance. This appeared to be a signal, for a figure arose to a sitting position in each one. The thick vapor rolled off the neophytes who arose slowly to their feet and stepped forth to carry on the work which their comrades had abandoned until their turn came again.

They moved silently up the steps, paying no attention to Clea. They were asleep, obeying the instilled, hypnotic sug-

gestions of the Durna Rangue. Their awakening would come when they were once more immersed in the heavy gas of their coffins. As far as actual life was concerned, they were dead forever, unless revived through a scientific process known only to the priests.

Clea wandered about the dismal tomb, looking at the various types of coffins. Over one of them hung a white, clutching arm. The fingers, free of the vapor, clutched convulsively. Clea drew back in horror. She fled from the terrible place, up the stairs and back into the room where the neophyte minions patiently and mechanically prepared the bodies of recent victims for their entrance into a new existence, from death to a life in death. Asleep, they lived a vivid dream life. Awake, they slept apart from their dream life, their actions completely oblivious to their dream life.

That they were being guided in their actions by a hypnotic spell was apparent to Clea. Whether the hypnotic promptings were current or past, Clea did not know. In a crisis, the girl proved her bravery. She sensed an opportunity. Clea waited patiently for the bell to toll, sending a new shift of neophytes into action while the old shift returned once more to the synthetic life.

When the bell did toll, she returned to the cheerless tomb with the neoyphtes. Seizing the arm of one, a tall man, Clea held his arm firmly. Instinctively, he headed for his coffin but the effort had no will behind it. Clea held him back. There followed the usual routine of the neophytes. The old shift sank out of sight in their coffins. The new shift arose from their glowing containers, marching up the steps to continue the work at hand.

When they were gone, Clea stood off from the neophyte she had held back from a return to the synthetic life. Summoning her will power, she regarded the neophyte intently.

"Follow me!" she commanded.

It is doubtful if the neophyte heard her, yet his mind, a temporary blank, was open to her mental suggestions. He followed behind her. Clea led him to the locked door. She bade him kneel. Stepping upon his shoulders, she bade him stand up. Her finger tips grasped the open rim of the hole.

Giving a spring off the neophyte's shoulders, Clea grasped the rim firmly, pulling herself up. Her daily work with Brad had made her athletic. She commanded the neophyte to return to the tomb and his coffin bath.

The resourceful girl continued along the narrow, circular passage on hands and knees. It was apparent that the tunnel had never been meant for humans. The feathers of terseg birds strewed about the passage were significant of its use. Ahead of her, she heard the low intonation of voices. The passage came to an end. Clea looked down into a dimly lit laboratory upon the most unworldly scene it had ever been her lot to witness.

THE laboratory was expansive. Fully a score of the gray robed priests of Durna Rangue were in evidence. They were being assisted by dwarfs, small, squat men no higher than two feet from the floor.

These dwarfs represented another scientific achievement of Durna Rangue. Originally, they were full grown men. By compressing the atomic structure of their bodies, the priests had reduced them to this size. Their strength, however, was enormous. They were given certain organs and glands taken from the giant ants of Mars. The amazing strength of the ants was partially theirs in proportion to their size.

The little men, each weighing fully as much as the average man, lifted heavy objects many times their size with apparent ease. They bustled in and about the

priests like weird gnomes, going about their duties.

The priests, with the use of knives and intricate apparatus, were dissecting two of the neophytes. Clea saw the head of one entirely removed from its body. She bit her lip resolutely to keep from shrieking.

Morbidly fascinated, not wishing to see the act, but unable to tear her gaze from the scene, Clea witnessed from her place of concealment the decapitation of the second neophyte. When the head was placed under the orange glow, and the priest had arranged the dials and mechanism, the unrelated body and head were laid in different compartments of the strange machine. One of the surgical priests bent down and examined the dials closely. He frowned, then gestured, and one of the little men scuttled off, returning with a silent, stiff body which he held above him on the palm of his hand quite easily. The dwarf's strength was nothing short of marvellous.

Two more of the gray robed priests joined them. All four worked on the task of re-uniting the head and body. It was delicate and exacting surgery, all four working with enclosing headgear which enabled them to see directly through the body. They worked with a variety of instruments, apparatus, ointments and liquids.

The result of their work was shoved out of sight into a large cylinder which stood beside the priests in their laboratory. Flames of blue and green leaped off the cylinder as the priest pressed a lever. . . .

CHAPTER FOUR

The Coffin Chamber

THE swarm of human skeletons charged down upon Kern and Brad. Stricken dumb in astonishment for a split second, they remained immovable. Then Hilton fired. One of the skeletons, clutching at the direction of his spine with bony fingers, lunged forward. Brad fired. Another skeleton fell. The rest were upon them as both released a flurry of shots.

There was something decidedly queer about the whole business. Expecting to feel the contact of bones, they were gripped in muscular arms. Fleshy bodies grappled with them—yet they found themselves face to face with bony frames and grinning skulls.

"Quick—dig back to the door!" yelled Kern. "Fight through!"

Brad crashed his fist in a bony face straight for eyeless sockets. His fist struck soft flesh. The grinning jaws parted in a howl of pain and rage. By using every means of offense at their disposal, the two men won through to the doorway. The remaining skeletons slunk at the farther end of the room, thoroughly cowed, held at bay by the menacing pistols.

"Some more of Durna Rangue's devilry!" exclaimed Brad. "They're living men—like us! Their flesh has been made invisible.

Brad singled out one of the men of the invisible flesh, his electric gun directed at the white, glistening ribs.

"Where's the girl?" he asked. "Where is she who they brought here last night?"

A mingled chattering broke forth from the skeletons. It was unintelligible.

"No use," said Hilton. "They don't talk the universal language. Must be Venusians of the lower order from the type of their bony structure and cranial slope."

"Let's find one of the priests!" exclaimed Brad. "We can force information from them!"

Together, they ran down the rocky corridor. Turning a corner, they ran directly into several small figures, nearly tripping over them.

"Dwarfs!" gasped Hilton in amazement. "Here, you!"

Hilton's snatching fingers seized the arm of the dwarf, but the adventurer was treated to a surprise. He felt himself gripped tightly as the little man turned quickly. Hilton was thrown across the corridor where he sprawled on his hands and knees. In the meantime, Brad was jumped upon by the remaining two and flung to the floor. The dwarfs were astride him.

At sight of the gnomes, it had seemed ludicrous to shoot. The surprise had come so suddenly that their pistols had been knocked from their grasp. Hilton came back at the dwarf which had thrown him so easily. This time, the adventurer reached down and seized the little fellow by the collar. The dwarf's prodigious strength was useless. Frantically he beat and kicked the air. Hilton was amazed at the other's weight. The diminutive man weighed nearly as much as Hilton himself. In reality, the body of a full grown man was present in the dwarf's physique. The atoms were merely in closer relationship, confined to a smaller space through the devilish ingenuity of the Durna Rangue.

Quickly, Hilton looked about him. He saw a circular opening in the corridor wall. It proved to be another slippery chute like the one leading to the den of the insect men. He disposed of the squirming dwarf and turned to help his struggling friend.

BRAD, by means of a terrific effort, had risen and thrown off one of the tiny men. The other had him around the throat, gripping tightly, threatening to strangle him. As the first dwarf returned with a vicious attack, a well directed kick of Brad's foot sent him rolling again. Kern tore the remaining dwarf from Brad's shoulders, sending him sliding down the chute.

The remaining dwarf arose and scurried from sight in the direction from which they had just come. Brad and Kern continued on up the corridor at a rapid pace.

"If we see any more of the little fiends, shoot!" advised Hilton. "They're bad medicine!"

Rounding another turn in the corridor, they saw ahead of them a gathering of the skeletons and hybrids. They paused.

"No use turning back!" snapped Brad. "There's more behind us! They're closing in!"

"All right, then, let them have it!" cried Hilton. "We won't stop for anything!"

Hilton put this advice into effect immediately. His pistol blazed death. Together, they leaped over the lane of dead bodies after the remaining monstrosities which turned tail and ran. From a doorway ahead of them a priest stepped forth. Uttering a shrill cry, the gray robed figure leaped out of sight. The group of skeletons and hybrids gathered their forces to repel the two invaders. Beyond them, through the doorway, the priests directed their minions.

"Get one of those priests!" exclaimed Brad.

Kern and Brad leaped in among the reinforced mob of monsters. They knew such action to be their only desperate chance. Blazing away with their electric pistols, they fought savagely to get into the laboratory. Large numbers of the fiends, including the dwarfs, closed in upon them from behind. The priests screamed shrill orders. The monstrosities came from every direction. The pistols spread death about the two men, yet more came to take the places of those fallen.

In the melee, Hilton's mind protector was knocked off. Instantly, he became the prey of a watchful priest who stood back in the laboratory on a pedestal, fixing his clammy gaze on the young adventurer. Hilton obeyed the call, stumbling out of the fighting mass into the laboratory.

Brad went down beneath the horrid pack, his mind protector snatched off. The

fight was soon over. Brad and Kern were captives of Durna Rangue, entirely within the power of the priests who had seen fit to spare them from death, saving them for a worse fate. Under the insidious mind power of the priests they lay quiet upon the laboratory floor.

CLEA, from her place of concealment, fought to control herself. She was an intelligent girl of unusual fortitude. Her life by the isolated valley in the shadow of the hideous cult proved that. She realized that the lives of her husband and the adventurer might depend upon her wits. Gamely, she fought down her natural tendencies towards feminine hysteria, remaining quiet.

She saw them reclining insensible upon the laboratory floor, heard the priests debate the matter, finally deciding to embalm them in the heavy gas for the time being. She thought she would go mad when she heard the decision of the priests. Then, recollecting the cylinder, she was struck with a dim hope. Clea waited impatiently.

The dwarfs brought two coffins from a nearby chamber which adjoined the laboratory. Clea turned her head, retreating far back into the little tunnel out of sight and hearing. She ventured back to her lookout position just in time to see dwarves return the two coffins to the chamber from which they had been brought. The fearful skeletons and hybrids were gone. Only a few of the priests and their little servitors remained.

Clea's fingers itched for one of the two electric pistols which lay on the laboratory table. She also knew that one of the mind protectors which the priests were examining with curiosity and interest would come in handy. Clea waited and watched, hoping they would all leave the laboratory.

But she was doomed to disappointment. One of the priests remained in the laboratory, sitting bent over a microscope through which he peered intently. Another of the gray robed brotherhood was present in the adjoining chamber. Covetously, she regarded the two pistols at one end of the laboratory table. Then she took stock of the wall below her. It represented a long drop, even against the gravity of Mars. Upon her right arose several high columns of shelves. Clea was seized with a desperate resolve.

The shelves were in reach, yet she hesitated. Everything, it seemed, hung in the balance. Once more she watched the priest of Durna Rangue. He sat quiet, gazing into the microscopic scene laid before him. With feline stealth, Clea reached far out for a grip on the shelf nearest her. Gaining this, she swung her feet clear of the circular tunnel to a lower shelf.

Slowly, cautiously, she descended step by step. Two more shelves separated her from the floor when a most deplorable incident occurred. In her anxiety to consummate the descent and creep across the chamber, her toe hit a receptacle. There came a tinkling crash.

Knowing full well that action was now imperative, Clea jumped the remaining distance. The priest sat bolt upright in surprise. He turned just in time to see a girl flash across the laboratory, seize an electric pistol in each hand and cover him. An enigmatic smile spread over his sallow, crafty features. His eyes widened, the pupils contracting to mere pin points, giving them a glazed expression which was horrifying, fascinating.

Clea felt her pistol fingers grow weak—saw the priest approach her slowly. Summoning all her will power, she pulled mightily on both triggers. Two silent spurts of death penetrated the gray robe. The eyes of the priest became truly glazed as he stiffened, swayed, tottered and fell. With presence of mind, Clea immediately donned one of the brain protectors, hanging the other in her belt along with one of the electric pistols.

GRIPPING a weapon securely, she headed for the chamber in which she had seen the bodies of Brad and Kern taken.

Long rows of coffins silently proclaimed the chamber as another dream world of the neophytes. Clea made her way rapidly from coffin to coffin. All were open and half full of the misty, clinging gas. She knew full well what the gas enshrouded. Clea had remembered the particular symbols on the coffins the dwarfs had brought for the disposition of Brad and Kern. She searched for them, finding them laying side by side.

For a moment she was filled with a dread repugnance to touch the cloudy gas. Then bravely she plunged her arms into the wispy material. Groping beneath the vapor, her hands encountered a still body. She pulled an arm into sight, drawing the body into a sitting position. As the clinging gas rolled slowly off the head and shoulders of the man, she saw that it was Kern Hilton, his face a mask of death.

Seizing him beneath the armpits, she drew the adventurer half over the edge of the coffin. Stooping, she took the inert body across her shoulders, staggering under the heavy weight. Into the laboratory and straight for the cylinder she carried him, depositing his body inside the machine. Shutting down the cover, she turned the levers.

A glow enveloped the cylinder which became transparent, the weird display of vari-colored lights shimmering from the cylinder. When the lights died away, Clea immediately opened the cylinder. Seizing the plunger which lay near at hand where Olo had left it, Clea gave Hilton an application of its contents.

He opened his eyes, sitting upright. Kern looked about him uncomprehending, his eyes falling on Clea. For a moment he seemed not to know her, passing his hand across his eyes and forehead.

Clea shook him. "Kern! Come down from there quick! Get Brad out of his coffin before they come back! Hurry, Kern!"

"Coffin!" queried Hilton, still a bit dazed. "What do you mean?"

"Oh, hurry!" she urged, tugging him into the coffin chamber.

"I just brought you out of this!" cried the girl, pointing to the coffin in which the adventurer had recently lain. "Brad's in that one! Pull him out and bring him back to the laboratory!"

PLACED within the cylinder, Brad Santon was subjected to the life giving properties of the machine. Kern looked on in dumb amazement, knowing full well that it was in this manner Clea had recalled him from the living dead. After she had injected a bit of the liquid from the plunger into her husband's body, Clea's heart beat fast as she saw the color return to his face. He sat up and groaned.

Briefly, Clea told them what she knew of the living dead, ending with the pointed suggestions that they bring more of the neophytes back to actual life with the aid of the cylinder.

They entered the death chamber and tipped coffin after coffin out upon the floor, the misty vapor rolling sluggishly from the bodies.

"Go easy," warned Brad. "Try one at a time."

His warning was a sound one. The first three experiments were entirely successful. The fourth, however, turned into a raving maniac. Hilton promptly shot him.

"We failed to bring him out of the trance right," said Clea, shuddering slightly. "See the red mark around his neck? The head and body did not originally belong to one another. Only the priests know how to revive those correctly."

Little trouble was experienced with the remaining neophytes.

(Continued on page 130)

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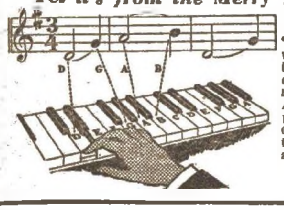

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(Continued from page 128)

CHAPTER FIVE

Revolt

FULLY forty of the neophytes had been recalled to life from their deathly dream trance. They were assisting in bringing others of their number to the laboratory. Brad Santon gave an exclamation at sight of a dead white face. Brad stopped the neophyte who was carrying the body, seeking a closer glimpse of the face.

"It's Zaym!"

"Indeed—it is!" agreed Hilton.

"Bring him into the cylinder! We'll revive him!"

The Chancellor of Venus was thrust into the cylinder and put through the usual formula they were employing in bringing the neophytes back to life. He revived quickly.

Several more of the neophytes were brought back to the real life, and then the liquid in the plunger became exhausted.

"I guess that's all we can do," said Clea.

"We can look for more liquid," was Hilton's suggestion, "unless—look!"

He pointed to the laboratory table. The legs and top were glowing, exuding a green fringe of light. Exclamations broke out among them. Every object in the laboratory and coffin chamber became coated with eerie brilliance.

"What is it?"

"Another of their devilish contrivances!" hissed Zaym.

The brilliance of dazzling green crept along the floor and walls, leaping up to enfold the bodies of several neophytes. In stark terror, the unfortunates fell writhing to the floor, screaming in death agony, the green light dancing impishly all over their bodies.

As the green light crept closer to them, the neophytes made a concerted rush for

the center of the laboratory, knocking one another down and trampling the fallen in true mob style in their frenzied efforts to escape the emerald death.

"We've got to leave!" cried Hilton. "Open the doors!"

"No—they're waiting out there!" shouted Zaym.

"Through that way!" exclaimed Clea, pointing to the small tunnel overhead.

Leading the way for the neophytes, Clea, Brad and Kern scrambled up the shelves, ready to fire upon any living menace the tunnel might hold. The dwarfs had disappeared. The tunnel was empty. Behind them came the neophytes, retreating from the green death. Several more of the awakened dreamers were overcome by the emerald glow before the rest succeeded in gaining the protection of the narrow tunnel.

By this time, those who had gone into the tunnel first were emerging from the opposite end, dropping down into the corridor which led to another chamber of the living dead. Led by their three rescuers, the neophytes poured into the coffin chamber and the workshop. In the workshop, they were attacked by a large force of the beetle men.

Mandibles snapped noisily. Neophytes and hybrids came to grips. Brad and Kern kept Clea protected while they took heavy toll with the electric pistols. Zaym, armed with a heavy instrument he had picked up in the laboratory, wielded death among the insect men.

Suddenly, the locked door burst open. Through it, brandishing gleaming blades of metal, rushed a throng of the skeletons, slaves of the invisible flesh. Behind them swarmed more of the hybrids and many of the dwarfs. Tersegs flew in from every direction.

Durna Rangue had unloosed all its hellish creatures in an effort to stem the fierce rioting which had broken forth among the

neophytes. The priests were not showing themselves while two of the opposition boasted electric pistols and mind protectors. The din and howling was terrific. Mandibles snapped off heads and limbs; electric guns shot down monstrosities. Skeletons wielded curved daggers, while overhead screamed winged demons, the tersegs shouting advice to the hybrids, skeletons and dwarfs.

"Through the doorway!" shouted Kern. "We're surrounded!"

With the remaining neophytes, reduced to one-third of their original number, they fought their way to the room beyond.

"This way!" cried Brad, choosing a long corridor.

Holding Clea tight beside him, Brad urged the neophytes on ahead of them, he and Kern bringing up the rear, keeping their hideous pursuers at a distance.

"The elevators!"

The shout went up from several of the neophytes as they emerged into a long, narrow chamber. Nearly a dozen elevator cars, propelled by radium repulsion, stood ready for ascent to the surface or descent to a lower level.

"To the surface!" shouted Brad. "Here's our only chance!"

The neophytes piled into the elevators, sending them upward. Kern, Brad and Clea waited until all but one of the cars were safely on their way to the surface before they entered the remaining car. The horde of monstrosities pressed close as the three leaped into the last car, pistols spurting death.

"Up we go!" Hilton threw the lever which set the car into rapid ascent.

Upward they climbed, rumbling towards escape and freedom, upward out of the insidious influence of Durna Rangue, from the depths of despair to the heights of clean, pure life. The rescued neophytes had already gained the surface.

"Pretty near to the surface now," Hilton said.

With a jarring sensation, the car suddenly grated to a stop, much to the surprise of the three occupants.

"We—we're not there yet—are we?" asked Clea in apprehension, her eyes on the indicator dial. "Why are we stopping?"

The car seemed suddenly devoid of all power.

"We're at a standstill!" exclaimed Brad. "No—we're falling!"

Together, Brad and Kern worked frantically at the controls of the car. There was no response. Downward they raced. Glancing at the dial, Clea gasped.

"Look! We're farther below the surface than when we started up!"

It was true. They were two thousand feet below the surface of the barren cliffs —far below the valley floor.

"How deep does this shaft go?"

KERN shook his head. The elevator raced downward at a rapid pace, completely out of control. The car jarred and quivered, throwing them off their feet to the floor. It had pierced an obstruction in the shaft, crashing through to continue at a slower pace. Soon afterward, it broke another barrier.

The car rumbled onward for a short distance—then suddenly struck bottom with a crash which shook up the occupants severely, splintering and twisting the sides of the car.

The three fugitives picked themselves up, bruised and badly shaken. A rolling, rattling noise issued from the shaft above their heads. Fine particles rained down upon the top of the wrecked elevator car. The sound grew in volume.

"Get out—quick! The shaft is collapsing!"

Forcing the twisted doors of the car, the three jumped to safety just before several

tons of rock debris hurtled down the shaft, crushing the car like paper. This was followed by more rock material. The ground quivered and rumbled above them, sealing the long shaft.

"Where are we?" asked Clea, glancing about her a bit helplessly.

"Where Durna Rangue won't get us, I'm sure of that," said Brad, wiping the sweat and powdered rock from his brow.

"Or anybody else," added Hilton, ironically, "unless we find another entrance."

They found themselves in a rough, unfinished cavern of small proportions, little more than a cave. A ragged tunnel led away from it. What the weird cult used the place for was a mystery to them. The gathered rock dust revealed that it was seldom visited. An oppressiveness hovered over them in the silent depths of the Martian planet. Hilton pointed to occasional white heaps strewing the tunnel along which they walked.

"Bones—human bones!"

Brad kicked a skull which rattled noisily. Clea gripped his arm and clung to him. The walls no longer glowed with the illuminating substance which had been used in the chambers they had recently left. In these lower, abandoned levels, they found it necessary to use the radium lights in their belts. Jagged walls and ceiling frowned upon them.

"What's that?" Brad pointed to a dim, ghostly figure on the wall.

"A parnex!" exclaimed Hilton.

"What is a parnex?" asked Clea, staring at the four headed beast which was limned upon the wall.

"A superstition of the priests," Hilton replied. "They believe this sign protects them from things beyond their power."

"Beyond their power?" echoed Brad. "What could they fear down here?"

They continued through the tunnel once more. Finally, it opened into a cavern—broad, high and very dark. The

glow of the radium lights flickered about upon strange objects rising up out of the floor of the cavern. Smooth columns of various heights supported statues of strange creatures.

"A mausoleum of the ancient Martians!" voiced Brad in awe. "That's what the Durna Rangue feared!"

"The priests must have sunk their elevator shaft down in here by accident."

"I feel sick and faint, Brad dear—so—so very—"

Brad caught the limp, swaying form of his wife and held her. Hilton, too, was acting strangely. He seemed a bit uncertain of his footing.

"Kern—here—help me! What ails you?"

"My head swims, Brad! I'm weak!"

Brad, holding his wife in one arm, kneeled before his friend. Hilton, without another word, rolled over upon his back, unconscious. The young miner's breath came to him laboriously. He became aware of a subtle odor. His senses reeled. With a mighty effort, he tried to rise. Brad fell back and lost consciousness.

The statues looked down, unmoved by the tragedy below them. Equally silent, unmoving, the three humans lay outstretched at the foot of a towering column.

CHAPTER SIX

Subterranean Waters

BRAD'S head swam out of a mist. He looked into the eyes of his beloved Clea.

"Brad—Brad!" she cried. "You're not dead!"

He heard strange rumbling noises. The ground shook beneath them. "I seem to be alive," he replied. The young miner made a painful grimace as he

attempted to raise himself to a sitting posture. His body seemed like lead.

Clea was on her knees beside him. Hilton still lay quiet. Brad's eyes felt very unnatural. It was difficult to keep the lids apart. He took a deep breath—then coughed.

"What's the matter with Kern?" he asked. "Is he dead?"

"I—I haven't looked to see," replied the girl. "I just awakened now, and—"

The girl swayed weakly. Brad reached out a hand to support her. Again the fearful rumble shook the ground. The floor of the cavern quivered violently.

"A Marsquake!" whispered Brad.

Clea pointed to a deep crevice in one of the walls which grew larger and larger as the internal stress shifted the stratified layers far beneath them.

"It will all tumble about us!" cried the young miner in sudden concern.

Hilton rolled over, mumbled something and passed a hand across his forehead. He stared at them—unseeing. With knuckles, he rubbed his eyes.

"Brad—what happened?" Hilton looked about him confusedly. "We must have slept here all night!"

"All night?" Even in this precarious position, Brad could scarce repress a smile. "We've probably been here several days, Kern. I know it."

Hilton essayed to rise weakly to his feet. Dull boomings reverberated throughout the mausoleum. A few of the columns tottered and crashed. The gaping fissure in the wall widened perceptibly, extending clear up through the ceiling.

"More of Durna Rangue's ordeals?" queried Hilton.

"I guess not this time," replied Brad. "Mars is having a convulsion."

"Hope it shakes the cliff to pieces on their heads."

Quite suddenly the Marsquake ceased.

The grumblings died into a sullen rumbling — then silence enwrapped the ancient mausoleum once more.

"I'm hungry!" exclaimed Clea.

"I've a few synthetic food cubes in my pocket," said Hilton, "if that stuff in the coffins didn't spoil them."

He brought them forth. They were broken up a bit and seemed unusually hard, but were none the worse for what they had been through. Kern handed them around.

"What happened to us all?" asked Clea. "I felt so weak and sleepy all at once."

"Something we inhaled while breathing in this place," opined Brad. "I didn't realize it until I was nearly gone."

"Then how long do you suppose we've been here?"

"That's hard to tell. Maybe a week."

"Doesn't seem that long," mused Hilton. "I'd say a few days, roughly."

CLEA walked over to the yawning crack which had split the mausoleum from ceiling to floor. She uttered a cry of surprise.

"Here's a stairway!"

Quickly, Brad and Kern ran to her side and followed with their eyes the direction of her pointing finger. They looked upon a long stone stairway beyond the crevice. The walls surrounding the stairway were lit with phosphorescent glow. At the foot of the steps, the surface of water glittered back at them.

Together, they ran down the steps to the water's edge. They found an underground river, moving slowly, sluggishly along through its rocky channel. The ceiling rose high above the river.

"Boats!" exclaimed Hilton, leaping out upon a platform on which stood several objects.

"They belonged to the ancient Mar-

tians," explained Brad, examining strange characters and writings on the sides of the boats. The water vehicles were constructed of light metal.

"Where do you suppose this stream goes?" queried Hilton.

"Don't you suppose we could drift down it and come out somewheres?" suggested Clea.

Brad looked at Hilton. Both shook their heads doubtfully.

"Not a chance. The stream probably flows into the subterranean ocean."

"If we had paddles, we might move upstream," offered Hilton. "That may get us out of here."

"It's our best bet, all right."

Selecting one of the metal shells, they searched for paddles. There were none. Finally, Kern made a discovery.

"Side wheelers!" he exclaimed, pointing to paddle wheels which the ancients had used on the sides of their boats to propel them through the water. "They clamp to the sides of each boat!"

The metal contrivances were found on a ledge overhanging the river—only a short distance from the boat platform. They fastened two of them on the boat they had selected, throwing another one in the stern in case of emergency.

Brad and Kern, each turning a handle, started their strange craft up the river, making remarkably good speed. Gradually, the luminescent glow of the cavern walls became dim, the walls sloping nearer the surface of the water.

"We need a light," said Brad, "or we'll be running into a wall."

"Here's one." Hilton unhooked the radium light from his belt.

Complete darkness, except for the radium light's slender beam, presently enshrouded them. The churning of the paddle wheels grew monotonous. Clea insisted on relieving one of them from time to time.

"Are we making much progress?"

"We seem to be getting somewhere."

Brad switched the light in the direction of the nearer wall, where the nearer wall had previously been. The beam floated off into nothingness. On all sides, the waving light revealed only a vast stretch of water. Brad directed the beam upward. Far above them, the distended ray of light shone upon the cavern roof.

"The underground sea!" cried Clea. "We've floated into it!"

"No!" exclaimed Brad vehemently. "It can't be so! We've been paddling upstream, and the ocean is downstream!"

THEY stopped paddling in bewilderment, realizing that they had lost all sense of direction.

"Listen!" Brad raised his hand for silence. "Do you hear it?"

"A waterfall!"

"Steer for it!"

They paddled nearer the rushing noise of falling water. Above them, a waterfall fell twenty or thirty feet into the subterranean lake.

"The continuation of the river we've been following," said Hilton. "We'll have to carry the boat up this cliff."

"How can we ever manage it?" Brad gazed hopelessly at the steep, rugged formations, doubtful.

They steered the boat for a nearby ledge. Kern climbed the rugged declivity in the beam of the radium light. At the top, he looked about him.

"We're in luck!" he shouted down, above the noise of the cataract. "There are two boats up here!"

"What?"

"Exactly! All we'll have to do is carry up the sidewheelers!"

The three fugitives from Durna Rangue found the two boats at the head

(Continued on page 141)

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Captives of the Durna Rangue
(Continued from page 139)

of the falls to be duplicates of the one in which they had ascended upstream to the lake. Fastening the paddle wheels to one of the new boats, they continued onward, leaving the lake far behind them.

"Must be getting nearer the surface," announced Hilton. "I've found a few branches of vegetation in the water, and they seem to be fresh, too."

The walls of the subterranean channel become lighter, shining once more with their luminescent glow, bathing the underground river in a weird, ethereal radiance.

Daylight spread a dim glow just ahead of them. Kern and Brad paddled faster. From a ragged cavern entrance, they shot out upon a broad body of water beneath the clear blue of a Martian sky. Rugged, towering ranges of mountains shut them in on all sides.

"Where are we?" asked Brad, looking about him at the unfamiliar landscape.

"We're a long way from the valley, that's sure," replied Hilton. "We're somewhere in the range of mountains west of the cliffs.

"I remember," said Clea. "They look hazy from our cottage."

"It's a long way up there." Brad pointed to the nearest of the towering peaks.

They paddled to the center of the lake. A blurring shape shot through the sky above them, disappearing rapidly in the distance as they watched it in surprise.

"One of the aerial transports!" exclaimed Hilton in amazed tones. "That's queer—they haven't any route over this section. What can that one be doing so far off its course?"

"Maybe it's a pirate airship."

"No—it's one of the transports. I got a flash of the insignia when it flew over."

For the next few hours they paddled aimlessly about the lake, searching for a pass through the encircling fringe of mountains. Rugged cliffs and high slopes formed an unbroken ring around the body of water.

"There's nothing else to do but commence climbing," said Hilton. "It's a long trek, but we've got pistols. We can kill animals for our food, and when—"

THROUGH the sky over their heads flew an airship! They waved madly to attract attention. It was another of the transports, the presence of which proved so much of an enigma to Hilton. The ship circled widely. They had been noticed. Slowly and gracefully, the air transport dropped down upon the lake. The fugitives paddled to the side of it. Shoving Clea up ahead of them, Brad and Kern scrambled upon the deck. The commanding officer greeted them questioningly.

"Who are you, and how did you get down here in a boat?"

"Not so fast," deprecated Hilton. "How is it that transports fly over this section of Mars? I thought this locality was off the course."

The commander regarded the adventurer in amazement. "We have flown this route for the last seven months!" he exclaimed.

"Seven months?" echoed Hilton. "What month is this?"

"Draco, of course," replied the commander, surprised at the question.

"Draco!" exclaimed Brad. He was stricken with a sudden idea, a light of realization. "We've been unconscious in that place for eight months!"

"What silly rot is this you're talking about?" asked the commander suspiciously. "Who are you, anyway?"

"I'm Kern Hilton, an astronaut for the—"

"Hilton!" ejaculated one of the under officers. "Then, these are the Santons!"

"How do you know about us?" asked Brad.

"I was one of the neophytes you rescued from the Durna Rangue! You sent us up in the elevators while you held off those devils!"

The neophytes had escaped in Hilton's space ship after seeing the cloud of dust shoot from the elevator shaft which Brad, Clea and Kern had taken.

Zaym had immediately organized a vigilantes force among the Martian settlements to destroy the evil cult. When they returned to the barren cliffs, they discovered that the Durna Rangue had fled. Only empty caverns remained.

This had all happened a year and eight months before. Since that time, little had been heard of the insidious organization. That it still existed, civilization was certain, but where the hideous cult had reorganized remained a mystery. Some people believed that the priests had burrowed away into one of the asteroids beyond Mars. It was general belief that they had flown to one of Jupiter's moons.

But Brad did not care. He and Clea were returning to their Utopia, sun-drenched Colorado.

THE END

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