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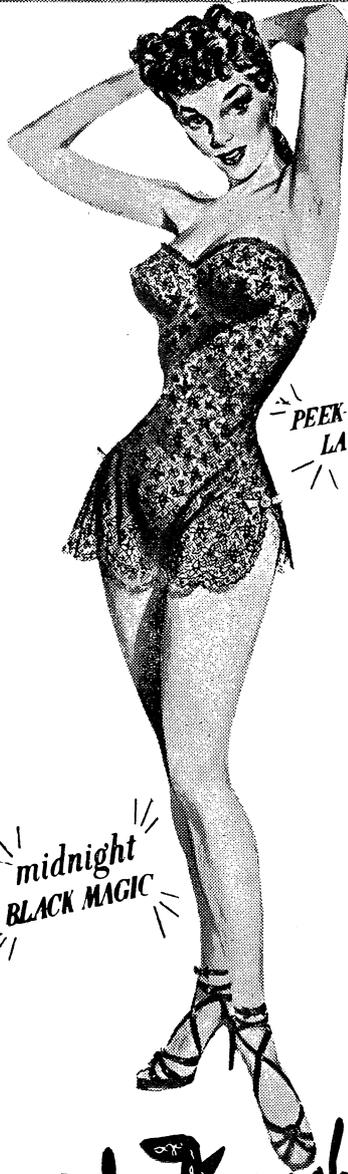
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PUBLISHERS REPRESENTATIVES

Times Bldg., Times Square, New York 18, N. Y.

Editor's Announcement

Today's fantasy is tomorrow's fact.

When Jules Verne set the pace in fiction of the future, he dealt in plausibilities. From creations already in existence, he fashioned those that might or could be. He pushed his world ahead a trifle or sped up the development of some invention to show what the effects would be on things as they were.

It was a great thing once to talk of vision in terms of architects' plans or overall expansion. In the Nineties they talked of the coming Century and fancied New York, as an example, in terms of so many more brownstone houses with a whole row of Brooklyn Bridges spanning the East River.

That was true vision in the parlance of the day. What had been done could be done on a larger scale. But to suppose that elevators would be put in dwellings generally, that tunnels would begin supplanting bridges, that automobiles, then airplanes would become the vogue in transportation, with space travel a serious target — those thoughts were relegated strictly to the field of juvenile fiction.

Perhaps that was why a generation grew up believing that such things could happen. Anyone born into an era where the automobile and the airplane were accomplished facts, would naturally have a headstart toward believing that anything could be possible. Somewhere, a switchover happened. Genius was combined with imagination. People no longer limited themselves to what might be done with existing things. They decided what they wanted done and then found or made things that would do them.

Nobody has ever proven for our money that fact is stranger than fiction and constant quoting of such a fallacy does not prove it. Fiction has always been jumps ahead of fact and will always stay there. Today fact is crowding fiction but not replacing it. It is up to fiction to set a still faster pace and this magazine intends to do just that.

We will show the things to come and leave it to others to shape them in actuality. All suggestions are welcome. Not even the sky is our limit. The sky is just an illusion, in case you were never told, and our first stop is the boundless space beyond.

Vol. I, No. 1
August,
1952

THE DAY NEW YORK ENDED



FRANK FROLLO

A COMPLETE NOVEL

By **WALTER GIBSON**

PROFESSOR Augo Zurow droned on and on, like the bees that bumbled in and out the windows overlooking Truman Square. His class in ancient history listened patiently, none taking notes. This was considered a "snap" course at Midhattan Extension College. Zurow's exam questions only concerned dry facts and fixed dates, never such personal digressions as he offered now, while he punctuated his drone with a sarcastic cluck.

"In this enlightened year of 1997," stated Zurow, "we regard the ancients as stupid folk whose fear of nature and its forces was equalled only by their ignorance of the underlying causes. Our superior wisdom has rectified all that. Here, in New York City, the world's greatest metropolis, what do we find? Open windows and bumblebees! Hah!"

Vela Smath shied with a shriek as she realized that a buzz beside her was not an echo of the professor's drone but an actual bee. The student in the next seat put out his hand and let the bee settle on his thumb. Vela glanced at the man's face, then back to his hand again. A puzzled reflex wrinkled Vela's winsome features.

The man's name was Roq Bartha, that much Vela already knew. He was one of the older students at Midhattan Excol, probably one of the United Nations exchange registrants who might have come from almost any country, or so Vela had previously supposed. Now she was sure that Roq must be from some very distant and peculiar place for the color of his skin was a distinct and decided green. This was something Vela hadn't noticed before, though she always sat next to Roq in ancient history.

The reason was that Roq's face was deceiving. Not in its expression, for he was frank in manner, friendly in gaze and always met Vela's glances with a slight but constant smile. It was Roq's complexion that fooled her. His face, smooth and rounded, required close scrutiny to reveal the olive green that lay beneath its tan. Vela never would have given Roq's face that closer look if she hadn't just now viewed his hand at close range.

If anybody ever literally owned a "green thumb" it was Roq Bartha. The bee appreciated it more than Vela Smath, for the girl was watching the insect prowl contentedly around that thumb and onto Roq's palm as he turned it upward. Roq's palm, too, was that clear apple green, except for the white lines that accentuated its color all the more. Curious, those lines so radically different from any that Vela had ever seen on a human hand. She

wished now that she'd taken the Freshman course in Palmistry here at Midhattan Excol.

Most perplexing was the bee's behavior. It was probing Roq's flesh with its stinger, yet apparently not hurting him. The bee was using its wings to counterbalance a rolling crawl, like a cat wallowing in catnip. Vela, studying the insect's actions, noted that the green texture of Roq's flesh was like an inner layer beneath a glossy coat, reminding her of specimens of carbonaceous shale that she had seen in Sophomore geology.

"IN the year 763 B. C.," droned Professor Zurow, "the kingdom of Assyria suffered upheavals that were both physical and political, proving that the two are definitely linked. An earthquake that accompanied a solar eclipse set off revolts resulting in the overthrow of King Ashur-dan."

Professor Zurow gave a pleased shake of his shaggy head as he tossed one fact to his listeners and came up with more.

"In 224 B. C.," he continued, "a great quake threw down the brass statue of Apollo on the Isle of Rhodes. The Colossus, as it was called, was about two thirds the size of our Statue of Liberty, which cost three times as much as the Colossus and has stood about twice as long. Too bad" — the professor finished with a cluck — "that the two never met."

Zurow meant that last sally for Vela and Roq, who were now so close that the girl's head was practically pillowed on the green man's shoulder. But this was no case of brazen affection, as Zurow had whimsically tried to suggest. Vela was merely studying the greenish grain of Roq's hand along with the busy bee. For the first time, Roq realized it. Abruptly but without anger, he pushed the girl aside and with the same motion sent the bee flying out through the window. Instead of seeking the flower-beds of Truman Square, the bee circled like a homing pigeon and buzzed back to Roq's hand.

"The decline of the Roman Empire," Zurow was stating, "dates from 366 A. D. when a submarine earthquake sucked the waters of the Mediterranean from its harbors and returned them in overwhelming tidal waves that horrified the portion of the populace fortunate enough to survive.

"Here in America, in the year 1811, the entire region of the Mississippi Valley was changed by a mighty earthquake that stirred the Indian tribes under Tecumseh into wild revolt. They were defeated and Tecumseh's power was broken at the Battle of Tippecanoe

by General Harrison —"

Zurow broke off and glared angrily at Roq. The professor's drone was echoed by the bee's buzz. Then:

"Am I interrupting your little friend?" demanded Zurow, childingly. "Or perhaps, judging from your smile, I have interrupted some of your own thoughts."

For reply, Roq clamped his hand about the bee, suppressing it, but Vela noticed that his fixed smile did not change. Watching the quiver of Roq's fist, Professor Zurow chuckled.

"A half-crazed fanatic shook his fist at San Francisco," recalled Zurow, "and threatened the city with destruction. One week later came the earthquake. A coincidence? Or was it?"

The professor wagged a finger at Roq Bartha as though admonishing him to spare New York. As Roq lowered his fist, a bell clanged the end of the period and the students filed from the classroom. Vela Smath, her tin of Microtext film tucked beneath her arm, followed Roq Bartha out to Truman Square.

ROQ'S complexion lost its greenish look when Vela contrasted it with the darker shades of the park bench and the surrounding shrubbery. Roq opened his fist and the bee buzzed away, unharmed.

"Don't mind Professor Zurow," sympathized Vela. "He's all talk. Nobody takes him seriously, or his course either."

"I do," Roq rebuked. "In fact, your ancient history, as he teaches it, is about the only exact science in the curriculum."

Vela did the 1997 equivalent of a doubletake.

"Why, what about astrophysics?"

"A fancy name for the guess-work once called astronomy." Roq's voice rang with ridicule. "Anyone can calculate weights of planets and distances to stars when no one knows the real answers."

"Why, you'll be saying next that geology is ridiculous!"

"The most ridiculous of all," nodded Roq. "Take a beetle that crawls over an apple, never even penetrating the skin. What does it know compared to the worm that burrows out from the core?"

"Why, why —" Vela finally found words. "You mean some of us are like beetles and other people can be compared to worms?"

Roq's nod was solemn, but his lips retained that fixed half-smile. He reminded Vela of a bobbing sunflower, but before she could say so, Roq clinched his case against the geologists.

"First they say the center of the

earth is all fire," Roq stated. "Then they estimate its density as twice that of the surface. So they compromise by giving it a core of molten iron and blandly support that claim by saying that the heavier metal would naturally gravitate to the center. If so, why shouldn't the nucleus be composed of a still heavier metal, say of gold?" Roq laughed, but without mirth. "Our wonderful world, with a heart of gold!"

Roq's fist came jingling from his pocket. He dropped some heavy gold coins into Vela's hands. They were larger than any that the girl had ever seen. They were stamped with an odd symbol that baffled her. Still smiling, Roq arose.

"Seeds from the apple-core," he remarked. Then: "Tell me, Vela, do you think Professor Zurow really caught my thoughts when he mentioned interrupting them?"

"Why, no," the girl replied. "I don't think telepathy is practical without the proper instruments. It was just an old-fashioned figure of speech. They talked that way back in the Fifties."

"You had no idea what was in my mind?"

"Why, no. There's one thing though, Roq. I wish you would tell me just what part of the world you really do come from —"

It was too late by then. With a parting wave of his hand, Roq walked away and Vela, springing to her feet to follow him, sat down suddenly on the bench with a shudder that she couldn't quite fathom. It wasn't Roq's wave that put Vela back on the bench. Rather, her feet seemed to trip over something that just wasn't there.

THE next day, Vela gained a strange glimmer. It came at the finish of the ancient history period when Professor Zurow sidetracked onto some of his concluding comments.

"It seems that I called the turn yesterday," remarked Zurow, smiling above his interlaced fingers as he rested his chin there and propped his elbows on the desk. "There was a story once of a butterfly that stamped its foot and made the earth tremble. Your little friend the bee didn't happen to stamp his foot, did he, Mr. Bartha?"

Vela gave a sharp look at Roq, who shook his head.

"The fact remains," declared Zurow, whimsically, "that a peculiar seismographic disturbance was reported from the Manhattan area about this time yesterday. The experts classed it very slight. In my opinion, it may have been very deep."

The professor paused, then added:

"History teaches that people always plan against things that never happen. During the 1950's America prepared

for World War III. Towns and cities from the smallest up capped themselves with hemispherical bubbles of transparent plastic which were both bomb-proof and ray-proof. Only New York was unable to astrodome itself for the war that never came. So Manhattan remains a jumble of towering skyscrapers and piles of tumbledown brick. We have kept our tunnels, bridges, even our old ferry boats ready for immediate evacuation, for we now fear attack from other planets. I say we are fools. Should we ever be attacked, it would be from a world within!"

The class bell clanged and Vela followed Roq out to the square, wondering at his hurry. As she overtook him, something in his fixed smile shook her confidence, Vela exclaimed:

"Why, Roq, you look positively green. Were you brought up on spinach until it got into your blood? Where in the world do you come from?"

Vela didn't realize how she stressed the word "in." She saw Roq's face undergo a series of changes, all in varying shades of green. He was flushing like a ripe cabbage when he queried:

"This World War III, it fizzed out, didn't it, through some international political deals?"

"Of course," replied Vela, "but people still kept their astrodomes. Would you like to go up in the Empire State Building and view them?"

ROQ nodded and they hailed a cab, one of the quaint old type with a helicopter attachment for jumping traffic jams. They literally hopped over to the Empire State where one of the new compression elevators shot them to the tower. Below, Manhattan spread like a carpet of dull gray stone, glittering chrome and muddy red brick, interspersed with the sheen of plexiglass.

"I love it the way they've preserved Manhattan's skyscrapers," enthused Vela, "like the French Quarter in New Orleans. And here we can have changing climate, with birds and bees." She halted, hoping she hadn't touched on a tender subject with Roq. Then quickly, Vela added: "The only things I don't like are those out of town tourists."

She gestured at some visitors clad in pressurized suits and plastic helmets.

"You'd think they came from space," scoffed Vela. "They have to keep the exact temperatures and atmospheric conditions of their home towns, the dear creatures. But they don't live far away."

Vela began pointing to transparent bubbles that showed on the New Jersey landscape like spun-glass mushrooms:

"There's Newarkadome, Elizadome, Jayceedome," — Vela turned north-

ward — "and Yonkerdome, Stamforddome. But there are no silly astrodomes on Long Island. It's still backward, like Manhattan, where we live like human beings, not hot-house plants."

Suddenly flustered, Vela met Roq's gaze through a pair of ultra-violet glasses that he had put on to counteract the sun. Roq's eyes gleamed like brilliant emeralds, reducing his greenish complexion to a mere pastel. Roq's expression was quite calm.

"You say Manhattan has no astrodomes." Roq pointed to some fairly tall but decidedly squat buildings that appeared to be all windows except for the frames that bound them. "What do you call those?"

"They were a compromise," explained Vela. "They were built in the Fifties and were rated as atom-bomb-proof, but by then New York had been declared a non-proof city."

"Then Manhattan would still be habitable if attacked?"

"By wardens and soldiers," stated Vela. "Those buildings were classed as EMS which means Emergency Military Structures. They were supplied against a surprise atomic attack so I suppose the stuff is still moth-balled there."

"The 1950's must have been long before your time, Vela."

"I'll say! Why, I wasn't born until August 1976. I was supposed to be a Fourth of July baby to celebrate the Bicentennial. So they named me Vela, short form for 'Very Late'."

"And your other name, Smath?"

"That dates further back. The Smiths became so prevalent that they followed the plan of the Smyth branch and subdivided further with the vowels a, e, o and u. I heard about it from Grandfather Smath. He was once a Smith."

"Was he around when they built those bridges?" Roq had removed his glasses and was shielding his gaze with his hands, like a pair of blinders, as he brought his finger-tops together so that they formed a V. "Picturesque, they are."

"Those go back more than a century," said Vela. "The Manhattan Bridge is on our left, the Brooklyn Bridge on our right. They look like the rails of a track, don't they? Except that they spread toward us, the way you're holding your hands."

Roq dropped his hands abruptly and turned to look westward. Vela's gaze traveled the same route, then halted in blinks of sudden disbelief.

EACH astrodome that Vela viewed was quivering like a bowl of jelly. As her eyes made the semi-circuit of those plastic-sheltered cities with popula-

tions ranging from a hundred thousand to half a million, they reminded Vela of half-formed soap bubbles trying to shake loose from the pipes that had blown them.

This was no optical illusion. It showed on the three dimensional map in the center of the observation tower. The out of town visitors were gathering there excitedly, pointing to their own particular domes in horror. As the quivers ceased, tiny cracks appeared near the plastic bubbles and smoke issued as if from broken puff balls. Vela looked at Roq, puzzled. His smile contorted like a caterpillar's crawl as his eyes glinted through the u-v glasses.

"Very educational," said Roq. "What you have said about Ems, Smaths and bridges. The rest of it" — he waved toward the quieted astrodomes — "is very familiar. I have seen it often before."

"From here?" queried Vela.

"From my apartment, a two floor walk-up in Lower Manhattan.

"But how can you see so much from a walk-up?"

"You ride fifty floors by elevator first. I live on top of the Finance Building. If you'd like to view the city again, without disturbance, why not visit me?"

Roq was leaving the observation tower and before Vela could follow, she was caught in a swirl of visitors anxious to get home to their astrodomes. Even those wabby bubbles and the surrounding smoke clouds seemed safer to them than unprotected Manhattan. When Vela finally struggled from a jammed elevator and reached the street, she had lost track of Roq. Vela climbed into the first cab she saw and gave the order: "Truman Square."

"Sorry, miss." The driver shook his head. "We can't keep up with those name changes. What was it called before?"

"It was named after somebody on a horse," wailed Vela, "until they shipped the statue off to a museum."

"I know; but that was the way with all of them."

"It's where Midhattan Exchange College is —"

"Why didn't you say that in the first place?" demanded the driver. "I'll have you there in three traffic jumps!"

IT still wasn't fast enough. When Vela reached the Excol, she found that Professor Zurow had gone. Nobody had any idea where he might be found. They were all excited over the TV flashes of mysterious attacks upon the Eastern seaboard from unknown sources, probably some remote planet.

Vela listened to the wild rumors:

"They say the bombs were invisible until they landed!"

"They came in at such supersonic speeds that the radar curtain never flashed them!"

"One theory is they traveled in on light waves!"

"They must have, to penetrate so deep before they exploded!"

"That's the only thing that muffled their impact!"

Vela couldn't get a word in and it wouldn't have helped if she had. All these statements were at total variance with her own wild notions, which in their turn weren't logical, but founded solely on a hunch that she couldn't exactly analyze. For that, Vela was depending on Professor Zurow.

Of course Roq Bartha had the answer, but Vela shuddered at the thought of visiting him. It would be like finding a spider in its web — or a worm in an apple.

Now the TV was flashing orders to evacuate Manhattan, which appalled Vela all the more, for it meant that there would be no ancient history class tomorrow, her only chance of contacting Professor Zurow. Vela joined a group to watch and listen as the familiar face of the popular commentator, Ab Aa, flashed on the screen.

"The mystery bombings have increased," admitted Aa, "but they are more remote from Manhattan. They have been felt in Philadome, Schenectadome and even as far as Providome. All astrodomes have withstood the shock, proving their security. Indeed" — Aa wagged a wise finger at his listeners — "though this is by no means official, it is believed that the astrodomes themselves, in filtering the sun's rays, may provide deflector beams preventing direct hits from the bombs."

At that, Vela Smath went really wild.

"Can't you see it's all crazy?" she began telling the Excol students. "They can't be bombs at all. If I could only find Professor Zurow —"

LAUGHS interrupted. None of these students were in Zurow's class. They couldn't catch Vela's drift and now they were gesturing for her to be quiet as an official announcement came from Ab Aa:

"The Port of New York Authority has ordered immediate evacuation of Manhattan and its environs. Only those with pass cards can remain. They will be assigned to EMS for safety."

In the bustle that followed, Vela was literally swept out to Truman Square, then to the streets beyond. The city was all confusion with helicabs hop-

ping about, rumbles coming from neglected subways, snorts from antiquated busses commandeered from museums and even screeches from the Third Avenue Elevated, itself a museum piece, as trains negotiated its tracks for the first time in many years. But all Vela heard was the bark of the Safety Wardens, ordering her to show a pass card that she didn't have. She was shoved on busses only to get off again, until finally she darted into the Empire State Building.

There, Vela displayed the only thing she had that resembled a pass, her receipt for a trip to the observation tower earlier in the day. She mumbled that she'd left a package and they let her go to the top. There, Vela huddled by a window and watched the amazing scene below. New York was a mighty ant-hill, its living streams flowing like currents. Vela could see thin lines pouring into subway entrances, others emerging at the docks where boats of all description were plying the population across the rivers. The bridges, too, were teeming and off beyond the limits of the city, Vela could see trains streaking away with their human loads.

All were outbound. On Long Island, the exodus was continuing to its extremity. Empty vehicles and vessels were returning only to replenish their loads. Dusk settled as Vela watched, yet still the departure was going on, on, on. The girl settled close beside the window with a sigh, only to have a hand clamp her shoulder. Vela looked up, ready to voice a new excuse for staying here. The words froze on her lips.

Vela was looking squarely into the green eyes of Roq. Now, as they caught the glint of the setting sun, they glowed with fire that seared the girl's brain, numbing her soul with their green heat. Vela was more than hypnotized, she was paralyzed. Roq's voice came in a lizard's hiss, his hand, too, had a reptilian creep as it crawled past Vela's arm, around her waist and drew her toward him. In Roq's clutch, Vela came to her feet, moved mechanically like an obsolete robot with the green man guiding every step.

THEY went down in the elevator, with Vela unable even to gasp for help to an operator who wouldn't have understood her. Roq, ostensibly, was simply taking her along her way. On the street, Vela wanted to shout accusations — but of what? If the students at the Excol hadn't been impressed, who would be? But all the while, Roq's green gaze gripped her. Not for an instant did those snake eyes lose their hypnotic spell.

Now, they were in a cab and Roq was bribing the driver with gold coins of the same mintage as those that he had given to Vela. They were speeding southward and every time a warden wheeled beside them, Roq flashed a pass card that he had probably bought with more of that mysterious gold. They reached the Finance Building, went through the deserted lobby and into a elevator that Roq took up to the fiftieth floor. Next came the walk-up that Roq had mentioned and as they neared the stair top, the green man's voice sneered from between his ever-smiling lips:

"So you couldn't find Professor Zurow to tell him your suspicions. That's why you returned to the Empire State to see what else would happen. You didn't know I'd been testing you deliberately, even furnishing you clues to see if you could resolve them into facts."

For the first time Roq's smile widened. Vela saw his teeth; they, too, were green, shaped like bits of finely-carved jade. They gleamed as Roq added:

"Now you will learn more, in fact, everything."

Roq unlocked the door of his apartment. A strange tingling swept Vela

as the green man's arm drew her across the threshold. It was as though a thousand bees were crawling over her, ready to sting her at an instant's notice. Vela had seen TV demonstrations of people handling such bee swarms, but this crawly impression dated to something much more recent.

Vela was thinking of the bee that had buzzed into Zurow's classroom, there to probe Roq's green hand as though it were a mess of spinach. Perhaps Roq's creepy flesh had imbibed thousands of such stings and now could transmit them like the current from a storage battery!

THAT fantastic notion faded as Roq closed the door behind them.

Not even in this advanced year of 1997 could anyone have dreamed up such grotesque surroundings. The walls were hung with dark brown curtains that Vela at first mistook for burlap. Then she realized they were damp, matted turf reduced to a paper thinness. As the curtains wavered, Vela saw that they were held together by enormous spider webs.

The curtains were self-sustaining, for huge spiders roved the webs, scampering quickly to any filaments

that snapped under the strain. As the spiders completed their repair jobs, hexapods emerged from the curtained soil. These creatures resembled oversized weevils; quickly they gummed the repaired threads to the curtain and disappeared into the folds.

Far from revolting Vela, this strange sight entranced her. She felt crawly, yet happy, as though her nature was partly insect. There was something homely in the earthy, soporoific odor that pervaded this apartment. Its chairs were composed of greensward, the couch in the corner was matted with a bank of rich, green moss. The furnishings were tempting Vela to revel in their luxuriance as she drifted forward, still thrilling to Roq's serpentine grasp.

Now, with Vela's eyes peering into the emerald depths of Roq's a new fancy caught the girl. Under the hypnotic power of the green man who came from heaven-knew-where, Vela seemed to shrink into the shape of a helpless, painfully creeping beetle, traversing the surface of a gigantic apple, from which emerged a mammoth worm with leering, jade-hued teeth and emerald eyes.

Roq himself had planted that sug-



As Roq caught Vela in his constrictor's clutch, Professor Zurow sprang upon the scene.

gestion in Vela's receptive mind. Now it obsessed her, but she still managed to cringe from it. With a last burst of will-power, she broke from Roq's grasp. He sprang from the moss-banked couch, caught the girl as she neared a spider-webbed curtain and was about to drag her back with his constrictor's grasp, when a cackly laugh interrupted Roq's harsher mirth.

The curtains were flung apart, shaking spiders and weevils from their roosts. From behind them stepped Professor Augo Zurow!

THE shaggy-haired savant was armed with a formidable weapon that even Roq Bartha was forced to respect. It was a stubby, large-muzzled gun shaped like a miniature mortar, with an automatic feeder attached. It was a bip, short for Bottomley's Improved Pulverizer, which could deliver a load of electronic dust with all the effect of an ancient sand-blaster.

A sharp click told that the bip's camera eye had caught Roq's range. Now, Roq could not surge forward fast enough to gain the weapon, nor could his strange eyes aid in an attack. You couldn't hypnotize a bip. Once it had photo-registered a target, that man was marked, even if the bip's owner went helpless.

Roq retired to the couch while Vela sat down shakily on a grass-upholstered chair. Professor Zurow stalked about the squarish room, flinging open the bespidered curtains, revealing the night scene of Manhattan, far below.

Vela gasped. Never before had mortal eyes like hers viewed such a sight; nor had Roq's eyes, whatever they were.

The city's power had been cut off but its myriad lights still shone with AG current, a form of bottled luminescence that would project its afterglow for weeks. Its weird iridescence bathed Manhattan in a great, flickering aurora that was doubtless being viewed from astrodomes many miles around.

The sight pleased Roq more than it did Zurow. The green man laughed.

"We are isolated now," Roq stated. "You have light, some heat, but no power. That means the elevator is cut off."

"There are still stairs," reminded Zurow. "Fifty flights of them. Or I should say" — he added a chortle — "fifty-two."

"No good," retorted Roq. "The emergadors are sealed."

Vela saw Zurow's scrawny fingers tighten nervously around the bip's feeder tube. Apparently he'd forgotten that all the Manhattan buildings were fitted with emergency doors, geared to close automatically when power was cut off. Then Zurow brightened.

"At worst it is only a stale-mate," the professor decided, in a dry tone. "One life more or less does not matter, yours or mine, Roq. A short while ago, I could have turned you over to our wardens. But it does seem more sporting to wait and see whose side wins — yours or ours."

To that, Roq Bartha bowed his acquiescence.

"I wondered about you, Roq," continued Zurow, "when I first saw you in my class. Your intense interest in my snap course surprised me. You even made notes on what my fellow-professors term my crack-pot notions as to the origin of the human species."

Vela gave a recollective blink.

"You mean when you talked about dinosaurs and all that?" Vela queried. "The very first day in class, professor! You said that early reptilians were swallowed by the earth along with vast forests and strange exotic plants. Swallowed alive, you said!"

"Exactly," nodded Zurow, "Then I suggested that you forget it, rather than clutter known history with unknown factors."

"You said more," put in Roq. "You declared that all the history books ever written only covered the surface of the world's story. That proved you suspected the existence of inner worlds!"

"And I suspected that you came from there," added Zurow. "You were too green, Roq, even for a college freshman. If I nicked you lightly with this bip" — the professor tilted his head cannily — "what would come out of you? Blood or chlorophyll?"

"Both!" Roq drew himself up proudly. "Why not? Our race crossed itself with vegetable and reptilian species long before your warm-blooded ancestors struggled out of their caves to seek a barbarous existence on the world's shriveled skin. We ignored you in our vast realms below, where we had layers and layers of lands more valuable than yours. Then, when you graduated from your childhood into the adolescence that you term the Atomic Age, we worried for the first time. Until then, we had tested you with gentle warnings. At last you required a thorough treatment."

Through Vela's mind flashed all that Professor Zurow had tabulated in the way of earthquakes ancient and modern, plus their effects upon history as surface nations knew it. From her purse, the girl brought the gold coins, clanked them before the professor.

"Roq gave me these!" exclaimed Vela. "He was sounding me out, thinking I wouldn't believe him when he said they came from the core of the earth. In fact, I didn't believe him until now!"

"You don't believe me yet," sneered Roq. "You won't until tomorrow. Then, you will see ancient events — as described by Professor Zurow — reproduced in modern times!"

Vela saw an eager gleam come over Zurow's face as the professor tilted his shaggy head to encourage Roq.

"We tested Manhattan two days ago," Roq declared. "All it did was shiver. Solid rock, like Gibraltar, which we never could budge. So today, we worked around the circle."

Vela remembered the astrodomes wiggling like so many bowls of jelly, each with thousands of human lives palpitating inside it, all in Jeopardy. Horrified, Vela exclaimed:

"You mean earthquakes!"

At least Zurow and Roq agreed on one thing. Both nodded. Then:

"I knew that talk of invisible bombs was poppycock," stated Zurow. "Our scientists are still witch-doctors at heart. They always start with theories that please them. A historian like myself prefers to face the truth. Those bursts came from below, not above."

"Precisely," declared Roq. "Our Earthian engineers shifted great blocks of granite, miles below the crust. Fortunately for your astrodomes, none was directly above a fissure. All the better for us, because it prevented your so-called scientists from guessing the real cause."

GINGERLY, rather than cause the professor's bip to discharge its automatic blast, Roq stepped to an object that Vela had mistaken for a small stool but now identified as a huge mushroom. Lifting the head from the mushroom, Roq revealed a TV screen.

"A direct communication line to Earthian headquarters, a hundred miles below here," Roq stated. "But I can tune in on your surface stations. Let's hear the news."

Roq pressed a button and a newscast flashed on screen. Out of a blurred face came the never tiring voice of Ab Aa.

"Invaders from the unknown planet have been repelled!" was the announcement. "Driven back to the shelter of their own shellholes by the astrodome guards! Nobody knows what far planet these green men come from, but their ships must have disintegrated when they landed so it will be impossible for them to return there!"

Roq cut off the TV with a sweeping gesture.

"You see? Your people are still baffled. They think it is an invasion from outside, not from the inside. They have evacuated Manhattan as their most vulnerable city, although it is actually the most formidable in this crisis. You are abandoning your one great stronghold, you stupid surface folk. Soon it will be ours!"

For the first time Roq's face showed a ruddy flush of triumph. It still didn't humanize him. After all, some species of lizards were red and so were beetles. But now Roq decided that he had said enough. Drooping his chin, he folded his long arms across his opposite shoulders and lapsed into what appeared to be sleep. Professor Zurow gave a nod and closed his own eyes, indicating that Vela might do the same.

SOON after dawn, the hiss of Roq's voice awakened the others. Roq gestured to the window and gave the professor a mock bow, also intended for the bip that rested across Zurow's forearm.

"If you will promise not to pulverize me," said Roq, "you may step over and witness one of those very cataclysms that you have described so often to your history classes."

Zurow adjusted the automatic range on the pulvigon and stepped to the window, accompanied by Vela. Below, they saw a startling contrast to the Manhattan of yesterday. All activity had ceased; the streets were utterly deserted. Not even a parked car was in sight, any that remained were probably garaged in the Emergency Military Structures which stood out sharply among the older buildings.

Those EMS with their glazite walls and neochrome partitions were proof against all known forms of bombs and therefore served as shelter for the wardens and military observers who had remained on the beleaguered island.

Some ferry boats were still at their slips along with various forms of river craft and antiquated freighters which were berthed at piers along the rivers. These had been used in the evacuation and had returned to their Manhattan

docks because they would be as safe there as on the New Jersey or Long Island shores which lay so close by.

Roq making no objection, Zurow and Vela made the rounds of the windows which opened on all sides of the penthouse. Off in the distance they could catch the glint of the astrodomes through a pall of dust that dimmed the horizon in all directions except seaward. Not only were those cities intact, they had by now absorbed practically all of Manhattan's population. Somehow, despite the shrouding smoke that had come up through the ground fissures, the scene lent a lull of security.

Vela glanced warily at Roq. In the sunlight, his face had a vegetable look and its smile reminded her of a carved pumpkin's. Then, through those jack-o'-lantern lips, Roq hissed:

"See what happens now!"

THE astrodomes had begun another jelly-wobble; it was from that fact that Roq took his cue. Vela's footing seemed briefly insecure, as it had that day in the Square, proving again that Manhattan was the center of a quake which could do no more than express itself as mild tremor. Professor Zurow was studying this, his eyes giving quick birdlike glances as he hopped from one window to another. His own face was gleeful, his voice happy as he chirped:

"You can't shake us, Roq! With all your sub-Earthian devilry, we have you licked! Manhattan may be our weak link against attacks from other worlds. It is our bulwark against invasion from our own."

"I told you all that," reminded Roq. "Those quakes are not intended to destroy Manhattan. They are the preliminaries to its capture. It is to become our Gibraltar. Not yours. Look there!"

Roq pointed northward up the long valley of the Hudson River. Zurow chortled anew as he saw the great line of the palisades, the cliffs still intact. Then, the professor's mirth ended in a short gasp, which Vela echoed.

Below those cliffs, the blue water of the Hudson was dwindling away. It became a gushing stream, sweeping beneath the great George Washington Bridge, which remained intact, anchored to the rocky shores. Now, turbulent waters were wresting ships from their docks. The Hudson River was flowing out to sea, like so much water going down a drain!

The East River, too, was running out. Its line of bridges now spanned a rocky, muck-lined chasm. Farther to the east, Flushing Bay was flushing out into Long Island Sound which in its turn was going dry. From the window

that faced New York Bay, Governor's Island and Bedloe's Island loomed from the ooze that now represented the harbor. Towering higher than ever above the mired ships, the Statue of Liberty uplifted her torch more impressively than ever. Vela thought that Zurow's chuckle was inspired because the Statue of Liberty, unlike the ancient Colossus of Rhodes, had remained unruffled by an earthquake. But there was an added reason for the professor's delight.

"Look out there!" Zurow exclaimed as he gestured with the pulvigon. "See how the ancient gorge of the Hudson River cuts its way through the shallow ocean bed, just off the Atlantic Coast. We are the first people to view that mighty chasm since the Pliocene period, more than a million years ago. That was when the coastal shelf became submerged, drowning the true mouth of the Hudson with it."

Vela wasn't impressed by this prehistoric data. She swung impatiently to Roq.

"So what do we do?" Vela demanded. "Wait another million years for the tide to come back?"

"We might oblige you sooner," returned Roq, in his impassive way. "It depends upon how soon our engineers finish their next project. It should not take them more than a day."

He gestured casually beyond the dried harbor, then switched the subject.

"FOR breakfast," said Roq, "I can offer you preserved turtle eggs from the Miocene period, some ten to twenty million years ago. Don't let their antiquity disturb you. After all, you cook with coal from the carboniferous period, a few hundred million years before that."

"But there's a difference," argued Vela, "between eating and cooking."

"Perhaps," agreed Roq, mildly. "Still, the eggs will suit your taste. I have tried them on other surface folk. I also have some of your gorgonzola cheese. It wasn't moldy enough for me."

"I suppose you would prefer an aspic of prehistoric jellyfish," snapped Vela. "Garnished with live spiders."

Roq gave a shudder.

"Not live spiders," returned the green man. "You surface folk have a monopoly in the barbarous practice of devouring creatures alive, such as raw clams and oysters."

"We'll try the turtle eggs," interposed Professor Zurow. "I'll have mine poached on toasted gorgonzola."

The breakfast proved quite palatable and Roq's refrigerator also contained



Tidal waves and monstrous machines combined in the attack on New York

some other forms of Surfavian food that he had tried, disliked and forgotten. Vela decided that they had enough to last for several days at least. While she was estimating the larder, Zurow discussed technicalities with Roq and found the green man highly informative.

"For thousands of years," stated Roq, "we have had Earthian spies among your Surfavian nations. Whenever one country became dominant, we gave it a shake-up. We felt that if you needed new worlds to conquer, you

might come below."

Professor Zurow nodded, almost sympathetically.

"On occasion," continued Roq, "we released cave-locked races, such as Goths, Huns, Vandals, and finally the Tartars. Your civilized nations were baffled as to where these hordes came from."

"Old legends have significance," mused Zurow. "All the Medieval talk of devils springing from the ground —"

"Could be laid at our doorstep," picked up Roq. "It is more effective,

however, to emit them from the ocean bed. First, we open inlets to huge submarine caverns which serve as temporary reservoirs. Then" — Roq paused, gave another gesture from the window — "well, look for yourself!"

ZUROW looked, saw something far, far out beyond the abolished shore line. Vela, peering past the professor's shoulder, was the first to make out the writhing object that was humping upward and forward from the ocean bed.

FRANK
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"A sea serpent!" The girl turned defiantly to Roq. "Are you letting such creatures loose on us? Why, you — you worm!"

Roq bowed as though he had received a compliment. Then he shook his head and said: "Look more closely."

"It's a gigantic mole!"

The exclamation came from Zurow, but Vela only stared. It didn't look like a mole to her; as the thing crept closer, it appeared to be simply a tremendous upheaval of rock and sea bed forming a long ridge like a range of hills to the left of the ancient Hudson gorge. Roq observed Vela's puzzlement.

"You're thinking of a different kind of mole," explained Roq. "The professor refers to a jetty or breakwater, not an excavating mammal. The terms have the same significance, in a way. Such a jetty resembles the hump from a mole's burrow.

"In fact, we once used giant moles to dig underground passages for us, between our great earthlighted caverns. Now we have mechanical methods, compared to which yours are childish. We have picked a flaw or fissure in the ocean floor, from it we are pushing a shaft as a splinter would run beneath a skin.

"When the waters return, as they will when we eject them from their temporary reservoirs through the aid of volcanic action, the mole, as Professor Zurow terms it, will be above the surface. We shall use it when we need it."

Professor Zurow was muttering to himself, something about the prospect of constructing a Transatlantic tunnel by the very process that he was witnessing at present. As the day progressed, the mammoth burrow kept coming closer and closer while Zurow watched in utter fascination. It was afternoon when Vela heard him mutter, half aloud:

"It's coming in at Coney Island. Very, very logical — the burrow. It's perfectly suited to the present purpose."

That roused Vela's indignation.

"Tell me, professor," she suggested tartly, "just whose side are you on?"

Zurow was too engrossed to answer. Roq spoke instead.

"There's only one side left," said Roq. "The Earthian side. We'll let you and the professor live" — he eyed Vela cannily — "because you can probably use you for one purpose or another. But excuse me now, while I report."

ROQ lifted the lid of the mushroom pedestal, tuned the dials and spoke in a

strange but musical jargon, which brought a response in the same tongue from a loud speaker. Vela noticed that Zurow was listening attentively. When Roq finished, he addressed them both.

"The work will be done by evening," announced Roq. "Then the water will return. Fortunately there is a full moon tonight. It will enable you to witness a magnificent but chaotic spectacle."

Professor Zurow had his head half-tilted, a worried expression in his keen gaze. Roq gave one of his slight laughs.

"Manhattan will be softened somewhat," Roq stated, "but not too much. I am sure this building will still be intact when the invasion strikes."

"Invasion?" echoed Zurow. "From sea or land?"

"From both," Roq replied. "You could do nothing to stop it if I gave you all the details. You have the means to defend this Gibraltar of yours, yes. There was a glint of half-approval in Roq's glowing eyes as he glanced from the windows. "But your defenses could all be by-passed. You would have to counterattack with your puny weapons, something that you can not do, because you have no place to assemble them.

"These wonderful buildings that you have preserved for posterity" — Roq's hand performed a sweep — "this city of contrasts as you term it, is simply a memorial to your own stupidity. It is too late now to change it. Even when reduced to rubble, your buildings will form an artificial obstacle that your mobile units can not overcome: We shall ride over everything, we Earthians. You two will witness our triumph!"

Roq's burning eyes centered on the lower corner of Manhattan and Vela saw his hands form the same angle toward the bridges located there. Then the green coals lost their fire and Roq's whole manner suited his pumpkin smile.

"I must sleep awhile," Roq declared simply. "Your daylight disturbs me. No need to wake me. Night will do that for me. We Earthians thrive in darkness."

Roq went to the mossy couch, stretched himself there. A shudder gripped Vela as she remembered the green Earthian's clutch that would have drawn her into Roq's slimy embrace but for the intervention of Professor Zurow. Even now, the girl was edging herself closer to the shaggy-haired savant. Vela would need his protection if Roq's nap proved a pretense.

MINUTES expanded into hours but Roq made no surprise move. He

certainly appeared to be asleep if moles, worms, cabbages, or whatever else had contributed to his ancestry found it necessary to sleep at all. Then, from Professor Zurow came a whisper:

"Do you think he can hear us?"

"I can find out." Grimly, Vela plucked the bip from Zurow's grasp, turned to thrust it toward Roq's couch. "If we really want to be alone, professor, this is the sure way."

Zurow snatched back the pulvign before Vera could release the blast that would have reduced the couch and its occupant to a greenish powder.

"No, no!" exclaimed Zurow in a hoarse whisper. "We need him. Unless he keeps contact with the Earthians, we're sunk."

"But how — why?"

"There's plenty of current in that communication line," replied Zurow, "and it's probably set to blow the lid off this penthouse if Roq doesn't respond. Besides, we want to hear what else he has to say to his gang below."

"You understood Roq's double-talk, professor?"

"No, but I already understand Roq. His gestures are self-expressive. When he spoke of our defenses, he practically pointed to surrounding skyscrapers. Those are where our guns would need to be."

"Against an air-attack?"

"No." Professor Zurow was emphatic. "This invasion is coming from below. Roq said it would ride over us. He is thinking in terms of massive machines."

"He could be!" exclaimed Vela. "He said our own machines were puny. But he added that we could not use them."

Professor Zurow clucked a low, significant chuckle.

"Because of the buildings," Zurow added. "We would have no place to assemble our armament for a counter-attack. But I think Roq has overlooked something. Now as to the actual invasion, it will come from there."

THE professor pointed a long finger toward the gigantic ridge that wangled its way in from the departed ocean to the shining sands of Coney Island which were now catching the crimson glow of the setting sun. Vela nodded her agreement.

"Roq even made a V-signal with his hands," the girl stated. "He is counting on Victory already."

"So that was it!" clucked Zurow. "Well, we've called all the turns, including one I don't like. Roq says we're

helpless here. We can do nothing to stop the invasion, not even flash word of it."

"I'll see about that!" exclaimed Vela, grimly. "Give me that bip! I'll threaten to pulverize Mr. Bartha even though you won't let me go through with it."

"He'd only laugh," returned Zurow, clutching the pulvign. "I've told you already what would happen —"

The professor cut himself short, stood there gaping, his lips moving automatically. He was talking to himself and Vela suddenly made out the silent, repeated words:

"Flash word — wired below — flash word —"

Before Vela could put a query, Zurow gestured for absolute silence. He pointed from a window to the street lamps below. The AG bulbs were already gathering luminescence to counteract the deepening dusk. They couldn't even flicker now that current was cut off. Their light was purely an automatic afterglow.

But Zurow had other ideas. He hooked a wire from a floor plug into the communicator that Roq used for his talks with the world below. Letting Vela hold the bip, Zurow glanced warily at Roq, saw the green man was still sound asleep. Zurow thumbed the dials, found one that provided plenty of juice, for it blew a floor lamp, almost as soon as the light came on. Vela took a look from the window, gave Zurow an understanding nod.

BY his ruse, the professor had tapped the circuit in the building and was feeding the surrounding area. Vela watched the street lamps as their glow swelled, then faded, while Zurow manipulated the dial. Now, the lights were sending a slow, flickering message of dots and dashes into the dusk. Somewhere, either in Manhattan or beyond, eyes must surely be picking up Zurow's coded appeal. Vela herself couldn't make out the message because she wasn't familiar with such code, but she knew that Zurow was flashing considerably more than a simple S.O.S.

An interruption came in the form of an unintelligible voice from the communicator. Vela swung about swiftly, saw Roq stirring from his couch. The girl sprang over beside the communicator, gasped a warning as she yanked the connecting cord and thrust the bip into Zurow's hands. Then Roq arrived with a snarl, but too late to guess the extent of the ruse. The green man thought that the professor had been working on the dial, nothing more. Zurow added to the strategy by wheeling around with the pulvign while Vela was whisking the cord into a corner.

Roq brought up abruptly, his glowing gaze concentrated upon Zurow.

"Let blast," scoffed Roq. "See how long you have to live."

Zurow backed away and Roq took over the communicator. While Roq gabbled away in an Earthian tongue, Zurow whispered rapidly to Vela:

"I flashed a warning, if they will only heed it. I said to wait until after the deluge, then man the towers and prepare for a counterattack. I don't think Roq's friends away downstairs caught on at all."

Apparently the Earthians hadn't, Roq finished speaking, cut off the communicator and stepped away satisfied.

"Whatever you were trying to do, Roq told Zurow, "you failed. The waters will return within an hour."

ALMOST to that hour, the whole horizon seemed to undulate. Zurow and Vela, staring from one window, then another, realized that this must be the greatest quake of all, though it was scarcely felt in Manhattan. The taller skyscrapers clustered near the Finance Building did not show the slightest quiver. Suddenly, Vela pointed from the window toward the north, where tiny silver rivulets were cascading into the empty river beds.

"The reservoirs!" exclaimed Zurow. "They've broken!"

Those might have been a minor deluge in themselves, had the rivers been filled. But the gush from Croton and its surrounding reservoirs, followed by the greater outpour from more distant Ashokan, were amply handled by the empty gorges. In contrast, Zurow drew Vela to the opposite window, showed her what was coming in from the sea.

At first, the approaching stretch of water looked trivial, scarcely more than an average breaker in the ordinary surf at a seaside resort. But as it approached it grew greater, more formidable, and soon its roar was preceding it, rising in its own right as though the fury of all the storms in a century had been bottled and then let loose for this one grand occasion.

As the mighty, white wall approached the shore, a rift was visible in its foaming crest, like a wedge driven home by a giant's hand. That dividing marker was the mighty ridge that the Earthians had burrowed. Its rocky hump still showed when this most tremendous of all tidal waves engulfed the coast.

Coney Island was swallowed like a child's sand toys. The towering surf roared across the deserted stretch of Brooklyn, but it was spreading as it

came, with Jamaica Bay on one side, New York Bay on the other, capturing some of its vast bulk in the form of great whirlpools. Staten Island was breaking one section of the wave and the Statue of Liberty stood triumphantly high and dry upon its one hundred and fifty foot pedestal, which the wave could not quite top.

It looked as if Liberty herself had stemmed the tide. This was the first token that anything of human origin could survive the ocean's onslaught. Yet it was only a slight sample of the flood's head-on encounter with Manhattan. From their window, Zurow and Vela saw the wave meet the great buildings crowding Manhattan's tip as if they were a sea wall.

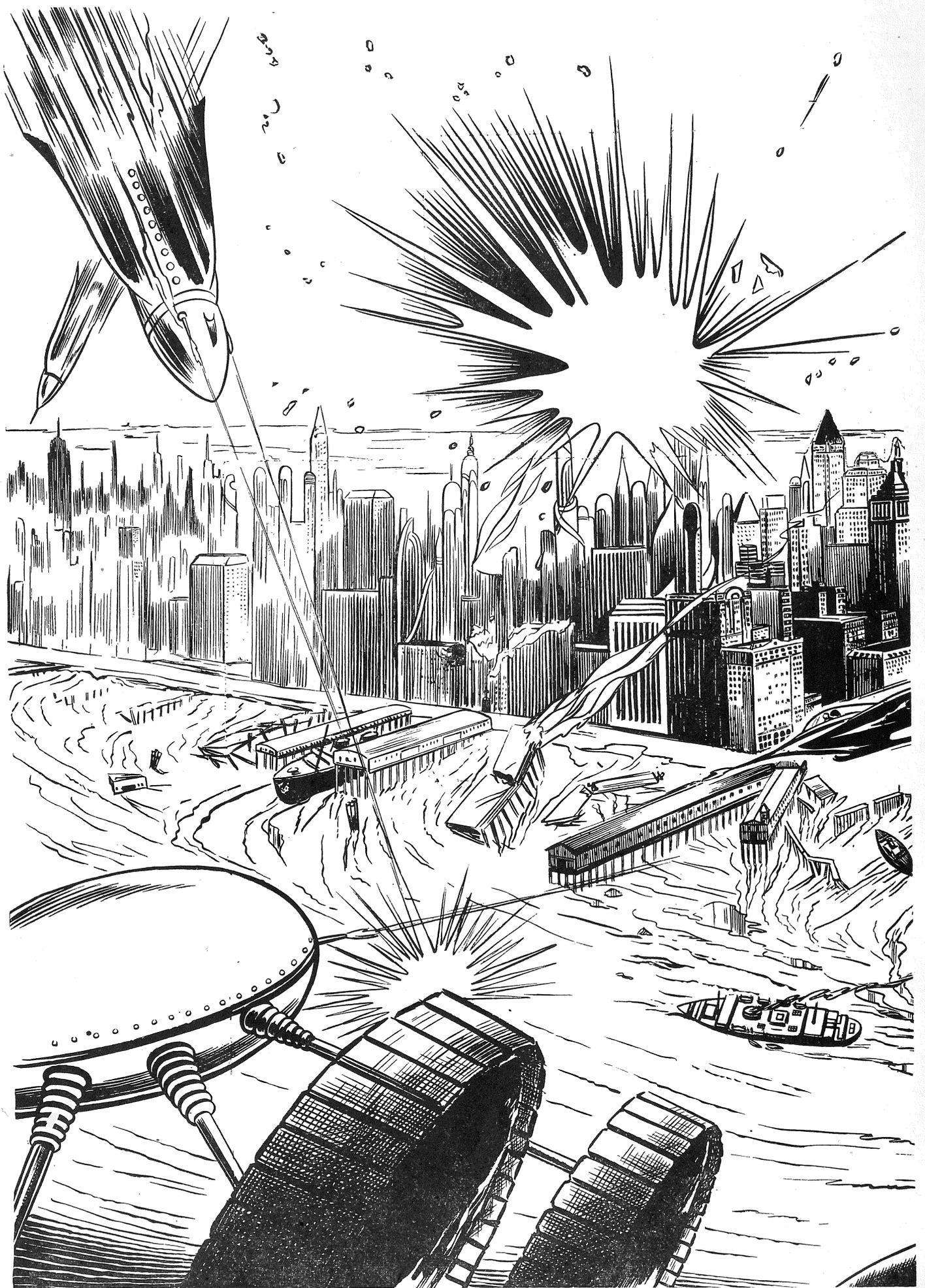
The breaker crashed, tossing its foam five hundred feet high but the piling waters failed to break that great dike of steel and concrete. Broadway and other thoroughfares, man-made chasms among the skyscrapers, were sluices that took off the surplus. Rushing tides bored up the rivers, coming almost to the roadways of the bridges, but their currents served to relieve the strain further.

THE crisis was soon past, when the waters, spreading wider, began to dwindle in the moonlight which now revealed this amazing scene of an undated metropolis. But it was hours before the tidal flood began to recede. As the lower floors of the skyscrapers climbed into sight, the roofs of smaller buildings appeared among them. Next, the streets themselves were visible, with pools still marking the entrances to the flooded subways. Off in New Jersey and Long Island lay stranded ships that had been picked up and cast aside by the diverging waters. A few such ships had been battered against the bulwark of Manhattan, but only to their own destruction.

It was long past midnight when the city emerged from the retiring sea. Most of the AG lights had been extinguished, but others were on the move, indicating that wardens had come from the Emergency Military Structures. Zurow gave Vela a significant look which the girl returned when she heard the roar of airplane motors overhead. Roq saw Vela's expression and laughed harshly.

"No use," scoffed Roq. "They have nowhere to land. As for coming in by tunnels, they are inundated. Your bridges are useless, because the earthquakes have destroyed some of the approaches and the floods have washed out the rest."

All true enough. Roq was reporting it over his communicator while Professor Zurow listened with head tilted



craftily, trying to link Roq's jargon with the green man's changes of facial expression. Vela, meanwhile, was trying to analyze the roar of the motors. They seemed to be varying as though ships were landing somewhere. When she looked from the window, Vela saw the moving lights of the military patrol cars, busily concentrating around some of the taller buildings. She felt hopeful as she wondered how fully the professor's flashes had been interpreted.

THEN, suddenly, it was dawn.

Roq Bartha pointed to the mud flats that had once been Coney Island. The waters were back now, to their normal shore line. The gigantic burrow was intact, like the butt end of a long mountain range. Gradually, it began to burst apart; then, emerging like something from a cocoon, came the most fantastic contrivance that the hand of man — whether human or inhuman — had ever constructed. It was like a giant, spidery creature five hundred feet high, but its spindly legs did not reach the ground. Instead, they formed slanting axles that stretched down to huge wheels that came up to the level of the metal bodies they supported.

A wheeled fortress so tremendous that it rivaled a battleship in size, yet in the distance looked like a daddy-long-legs mounted on roller skates. Combining grace with titantic prowess, the great machine was followed by another, then more and more, as they issued in horrendous procession from the hollow depths of the mountainous mole.

They came rolling across briny stretches of Brooklyn, exhibiting power rather than speed. The treads of the vast wheels were formed of segments, which combined caterpillar traction with their smooth progress. Apparently hydraulic pressure could be applied through hollow spokes, for Vela watched sectors of the wheels crush houses that they contacted, yet they picked their way over elevated structures in soft-cushioned fashion, treading gingerly.

Perhaps the Earthians had learned of locomotion from strange creatures that never saw the light of day, for the mechanical principles of the monstrous war machines were unlike anything upon the surface. Not only were they different, they were superior, as Vela could tell from the keen way in which Professor Zurow watched the approaching objects, his eyes glowing with an admiration that he could not restrain. Their armor too was singular. As they came closer, the great metallic bodies took on the look of gigantic crab-shells that must have weighed tons, though

they were delicately poised upon the glistening axles. From all parts of the shells bristled peculiar prickles that soon turned out to be guns. Their purpose proclaimed itself when a horde of airplanes suddenly zoomed from the sky and dived to the attack.

EACH of the great wheeled fortresses emitted a mushroom cloud of smoke, reminding Vela of the puff-ball effect from the ground fissures. At first glance, it gave the effect that they had been hit by bombs dropped from the planes. But it was just the other way about. What kind of missiles went with those puffs, it was impossible to guess, but they knocked the planes right out of the sky. Vela heard Zurow mutter unhappily as the planes vanished. Then Roq spoke drily:

"You see how useless your atom-bombs would be, professor. We are prepared against all air attacks. But we preferred not to stay boxed below."

"And why," demanded Zurow, "would we want to blast you in your subterranean depths?"

"You can answer that," returned Roq, "by telling me why your Surfian nations attack one another."

"For the same reason," Zurow retorted, "that you are unleashing your metallic spider-crabs on us. Desire for conquest. That is your motto, too. Just when we have finally established peace on earth, terror stalks from within it!" The term 'stalk' was apt. The great crab monsters were coming with such a gait, their huge but limber bodies rising, falling with every revolution of their wheels. They were nearing the East River from the Brooklyn side when a sudden rattle of artillery sounded from the towers of Manhattan skyscrapers nearest to that bank. Roq laughed as he turned to the communicator, Zurow and Vela watched the duel that had broken loose. Guns were shooting from the lower fringe of the first wheeled fortress, answering the fire from the skyscrapers. Apparently concussion waves had knocked out the planes and couldn't be applied this close to ground level. Zurow under-toned to Vela:

"They placed the guns like I told them. When I called the turn on the tidal wave, they knew I must be right. As long as we keep those wheelers off Manhattan, we hold the upper hand. If they try to wade the river, we'll ditch them there."

The spidery monstrosities moved away from the river. As they veered beyond the bank, new guns opened from Manhattan. Roq heard their fire, looked from the window, and resumed his rapid jargon over the communi-

cator. He was just finding out how widespread the resistance was. Vela smiled at what she thought was Roq's discomfiture, but Zurow, trying to interpret Roq's language by its tone, gave his head a worried shake.

"Roq, is excited," Zurow declared "but he isn't disturbed. He's watching for something that his crowd is counting on. I wish I knew just what!"

The professor's wish was answered, promptly and grimly. Like ships of the line, the metal monsters veered on their five hundred foot wheels and followed the leader as it rolled directly toward Manhattan Island. Now, seeing the great fighting machine much closer than before, Vela gave a horrified gasp as she recognized its purpose.

THE mobile monster had six wheels, three to each side, with a spread of several city blocks. The treads of each wheel were wider than the average street, furnishing another gauge as to the size of these Gargantuan creations. Now those wheels, were crushing buildings, climbing over their debris with hardly a waver in order to reach a pair of man-made pathways that had been waiting a full century to receive them.

The leading fortress was using the runways of the Brooklyn and Manhattan Bridges as parallel tracks for its giant wheels! Those mammoth treads were practically fitted to the roadways of the bridges. The hubs of the wheels loomed higher than the towers that supported the suspension cables. Now for the first time, Vela realized that these squat, rakish fighting machines were nearly a mile long and almost half that wide. They simply dwarfed the big bridges as they crossed them!

No danger now of those wheelers ditching themselves in the East River. With the impressive appearance of an elephantine march accompanied by the light-footed ease of a tight-rope walker, the procession crossed the last barrier to Manhattan. Flexible tractors spread as they encountered the cross-beams of the bridge towers. Slanted axles simply increased their angle, to allow for the V-spread of the tracks they followed. The crab-shelled bodies dipped proportionately, crouching as it were, upon the axles. An amazing sight indeed, these massive fortresses, floating in the air above the river, extending their spindly driving shafts out to the wheels that rolled across the bridges. It seemed hard to believe that the bodies themselves were actually supported by those spreading rods.

All the while, guns were keeping up a rapid fire from those river-straddling turrets. They were revolving, so

as to bring all their rifles into action. As each fortress completed its squat arrival on the Manhattan shore, it reared higher, the axles drawing its wheels closer together, thus projecting the body of the war machine to a height of about eight hundred feet.

Roq stood triumphant, arms folded, watching each unit reach Manhattan. He'd reported that the crossing was in progress with nothing threatening its successful completion. Now he could relish the moments he had so long awaited. Professor Zurow noted Roq's green-lipped smile and turned from the window to chide Vela.

"So it was V for Victory!" snapped Zurow. "At least that's what you thought. All the while this green buzzard was gauging the angles of those bridges, making sure he'd given the correct specifications for their use as tracks!"

WIDE-eyed, Vela recalled how Roq had pointed his hands toward the angle formed by the Lower East Side bridges, both in the Empire State and here in the Finance Building penthouse. The girl's face showed a pained expression. Professor Zurow softened.

"After all," Zurow decided, "You weren't to know that our civilization would be destroyed by waves of sexicycles."

"Perhaps I would have," returned Vela, sadly, "If I'd only majored in Biology. But as far as I got, they never taught us that there was anything cyclic about sex."

"I'm referring to those Earthian vehicles," explained Zurow. "Unicycle, bicycle, tricycle — keep right on counting and you'll realize a sexicycle is something with six wheels. Look at them, fanning out from their bridge-head!"

Roq turned from the window where he had been studying the maneuver of the mighty metallic monsters.

"Nothing can defeat us now," Roq prophesied. "Once we are established, you never will dislodge us. Soon the entire island will be ours. We are bypassing your defenders; later we can mop up."

It was an amazing sight, for though the Finance Building stood sufficiently alone to afford an untrammelled view, its height of fifty stories was a trifle stunted compared to the taller towers in this area.

The wheelers from the deep would have to crack a whole cordon of skyscrapers that were spouting gunfire and rockets from their summits, in order to get at the Finance Building at

all. The city's defenders had recognized this too. That was why they had not occupied the Finance Building. So it remained the ideal spot from which to watch the mighty carnage.

One batch of six-wheeled forts was skirting the downtown skyscrapers, returning the compliments in the form of devastating missiles. From the glad gleam in Zurow's eyes, Vela could tell that the defending towers were more than holding their own. From this comparatively low level, it was plain to see that the wheeled domes were patterned on the style of armadillos, their great metallic shells representing a superstructure with its gun-packed bristles.

NOT that they were totally defenseless beneath. Instead of soft underbellies, they had what amounted to a turtle's bottom shell. But the vast weight of armor was required above. To limit it would have sacrificed immunity to air attack. Too much weight, added beneath, would have crushed the bridges that the mammoth sexicycles had been force to use as track rails. Zurow recognized this as he turned to Roq and exclaimed:

"You had it all figured, even to the tonnage!" "Quite," returned Roq. He gave an upward, outward gesture to the fire-spurting skyscrapers. "We shall keep these annoying garrisons of yours bottled, as planned."

Manhattan's defenders were punching away at the fringes of the mighty armadillo shells. From beneath those edges, guns blasted in return. By keeping on the move, the great wheeled forts were escaping serious damage but were unable to deliver any themselves. Vela remembered something out of a history book and expressed it:

"At least we're providing a delaying action!"

"Not at all," retorted Roq. "You can never bring in assistance. We are blocking every route."

Roq let his hand describe an arc along the line of the horizon. Not only were all the astrodomes wobbling; hills were heaving, waters were seething, flat lands were rolling, all beyond the limits of the rock-ribbed island called Manhattan. Huge puffs of smoke, great geysers of mud and water, terrific jets of steam were appearing

everywhere around. There wasn't a chance for anything to approach within miles of Manhattan except by air and the wheeled forts were prepared to knock out whatever tried that route, something they had already demonstrated.

While one batch remained to heckle the downtown skyscrapers, the main body continued northward. There they met opposition from a lone fortress, the mightiest of all. The fifty top floors of the Empire State Building let loose with a grand display of rapid fire that literally veered the course of the invading monsters.

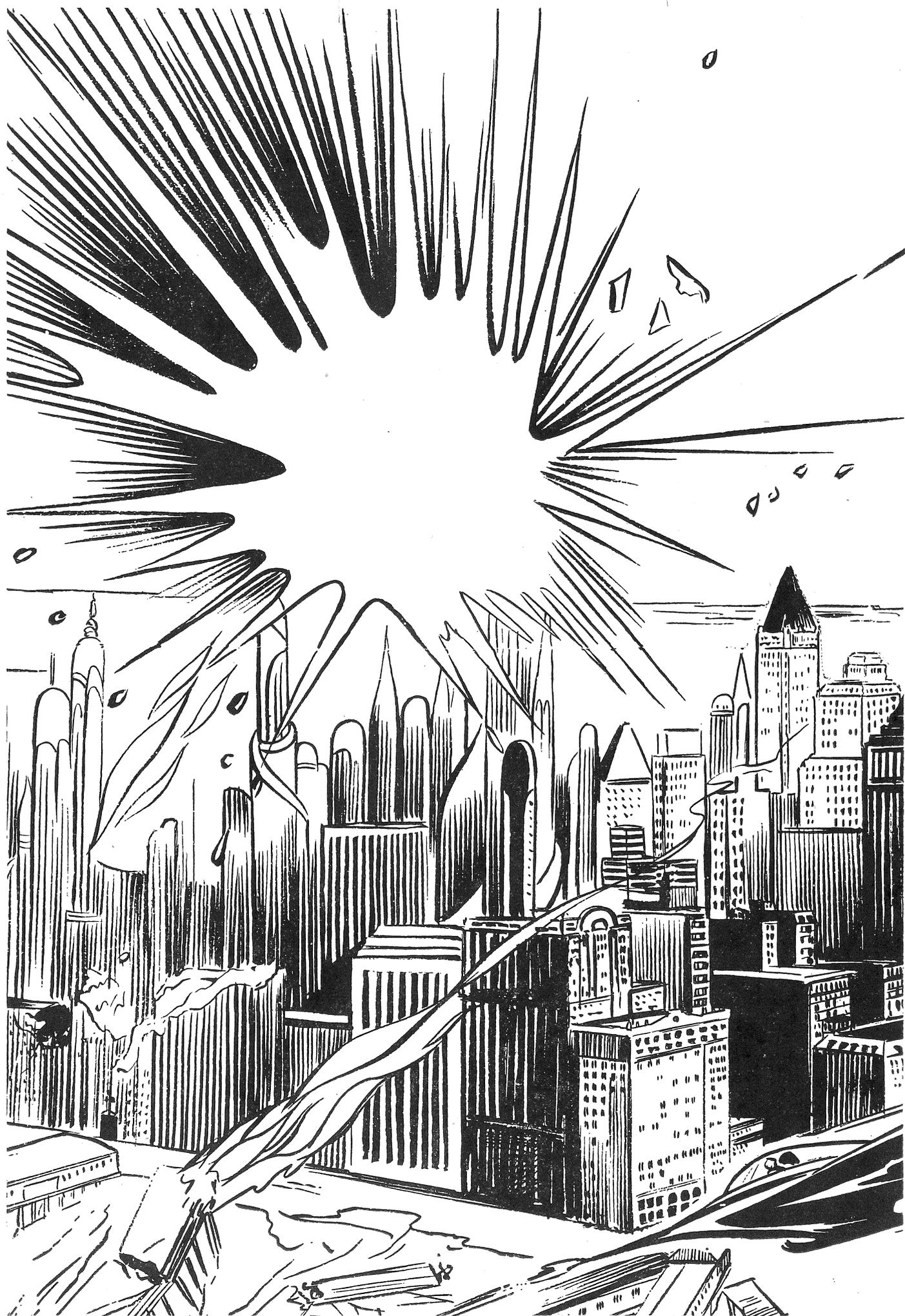
THEY gave the Empire State a wide berth, crunching low buildings like egg-shells beneath their massive wheel-pads. Tougher structures received more drastic treatment. The lofty monsters spread their wheels to a half-mile stretch, crouching their bodies down to hub level. From bomb bays, they laid egg-shaped objects on those hard-to-crack buildings, then reared themselves and rolled along their way. The eggs were time-bombs. They blew when the forts were clear, scattering concrete and cement like so much talcum powder.

The old Metropolitan Life Building at Twenty-third Street, once rated the tallest building in the world, was putting up a lone fight too, but it couldn't mount sufficient guns to stand off the monstrous wheelers, nor did it have the bulk to absorb their fire. Its tower began to wilt, the hands fell from its huge clocks, as its windows, serving as improvised loop-holes, went black and silent. This was an ominous token of what was to happen to other defenses, the longer this one-sided battle continued.

It required caution, though, from the wheeled fortresses. This was no cat-and-mouse game, with the invaders playing the feline role. A few of the wheelers swung too close to the Empire State and limped away with crippled wheels and breaks in their circle of guns. From then on, they circled at longer range.

The cluster of skyscrapers in the Grand Central area commanded similar respect. The wheeled invaders veered far and fast while dealing with that tribe. Still stouter resistance was provided by Radio City, where guns were banked twenty-odd deep on as many as a dozen buildings. Their fire forced the great wheelers to zigzag over by the Hudson River, though a few ran the gamut of the East Side.

Now the leading wheelers were closing a pincer grip on the sizeable



structures that fringed the borders of Central Park. They met a fairly strong fire from long, thin lines of guns, but it did not do much more than slow them. From three directions, the wheelers squatted down to the size of these defenses, preparing to demolish them with guns, bombs and crushing power. That done, the mighty wheelers could occupy all Manhattan and establish it as a permanent base for conquest, while gradually but surely wearing down the defenses they had by-passed.

As Roq had said, the Earthian machines were riding over everything or more correctly, nearly everything. But not quite all. A sudden opposition flared from beneath the very wheels of the metallic monsters.

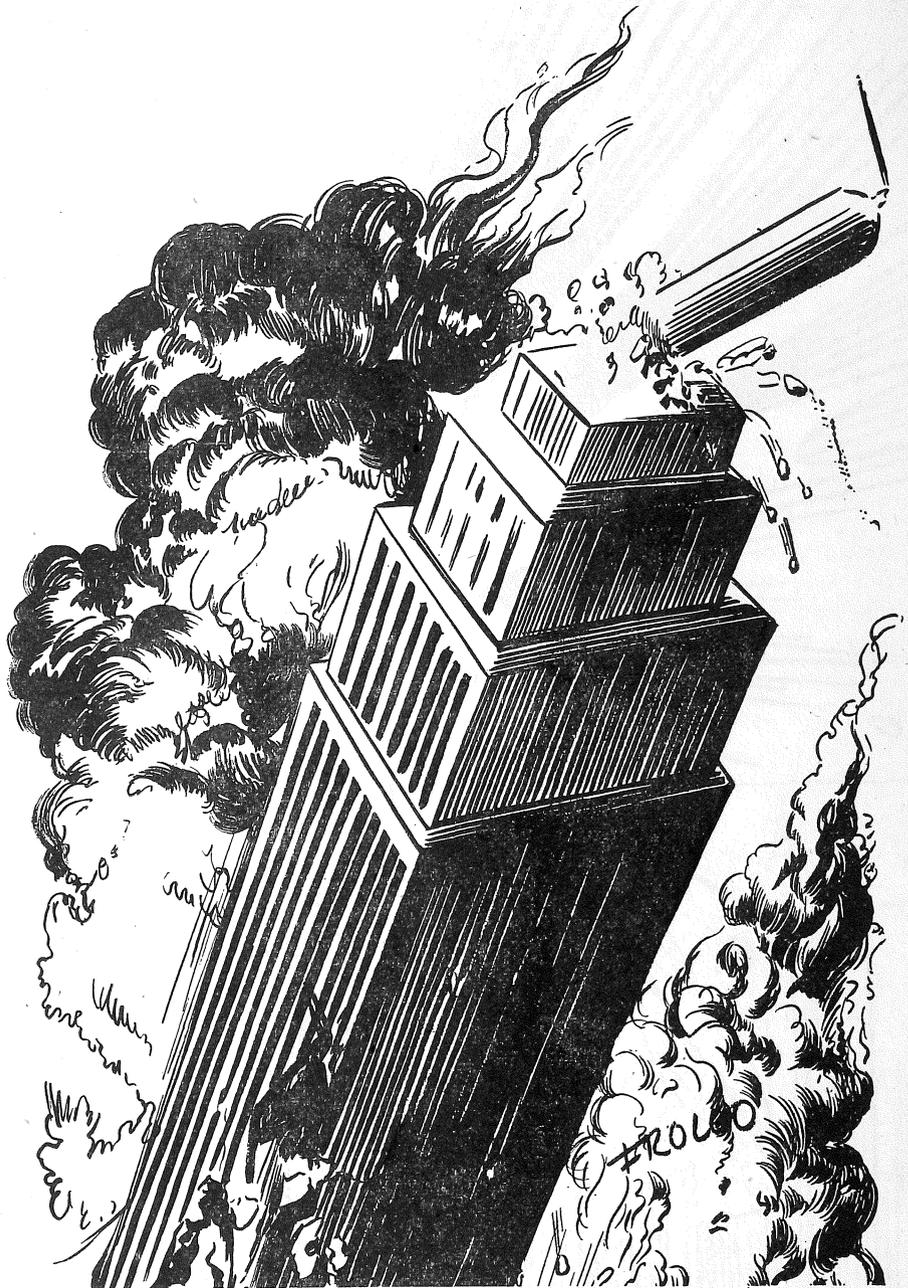
OUT from every exit of Central Park surged machines so puny that they looked like toys compared to the great wheelers that loomed above them. Tanks, tank destroyers, artillery tractors, even jeeps with bazookas issued forth in tremendous swarm. They had been lurking all over Central Park, camouflaged beneath great boughs of trees uprooted by last night's tidal flood.

They had been flown in by the planes whose motors had been thrumming before dawn, all in response to the appeal that Professor Zurow had flashed hours earlier. He had called for arms and armor to be on hand for a counter-thrust against whatever attackers might arrive. The needed equipment had been landed.

Guns elevated, the pygmy vehicles poured out through the gaps of Columbus Circle and the Fifth Avenue Plaza. They scooted through narrow streets between buildings that the Earthian wheelers were crushing down upon them. Like ants emerging from their hills, they poked up out of the debris and jabbed a steady fire at the thin, vulnerable plate beneath the bodies of the mighty invaders.

They were coming by dozens, then by the hundreds, finally increasing to a thousand and more, that had been assembled during the night. They looked like playthings, but they played rough. Too rough for the giant wheelers with the soft bellies. The great contrivances wheeled about and began to hew new paths of destruction, as blockades against the stabbing fighters from beneath.

Now, tanks and tractor-mounted guns were chopping at the mighty wheels that towered above them, like so many terriers biting at the feet of



The Empire State Building was riddled to a hollow shell as the mid-town sector of the city became a focal point in the gigantic struggle

lumbering elephants. The Earthian monsters flattened rows of buildings, but to no avail. The puny Surfarian fighters kept after them all the harder. The battle worked southward, where it could be viewed from the pent house on the Finance Building.

"You said we had nowhere to assemble," chuckled Professor Zurow, as he turned to Roq Bartha. "Apparently you had overlooked Central Park, My, my" — Zurow's cluck was reproving — "I suppose you preferred these moldy quarters to our great outdoors."

ROQ'S face had gone a livid green,

like a bunch of turnip tops. He watched the Earthian monsters, a full fifty of them, squirm under the continued attack. Tanks were climbing upon piles of rubble that had once been buildings. They were blasting at the spokes and hubs of the five hundred foot wheels on which the Earthian machines were mounted.

They were dropping bombs, those fifty giants, but their tiny foemen dodged the blasts. Now, some of them with wheels partly shot away, the mighty monsters were being herded back toward the fire of the clustered buildings. They had no other choice but to attack those defenses head-on.

First, Radio City, then the Grand Central cluster were battered, shaken, silenced by the titanic horde. But with the buildings, a dozen of the great Earthian machines were demolished also, caving on their weakened wheels and twisted axles, their doomed bodies settling in the debris of blasted skyscrapers. The Empire State Building was riddled to a hollow shell, from which many of its brave defenders descended safely when they saw they could no longer hold out against the encircling monsters.

Then, with some of their number slumping by the way, the remnants of the great wheeled horde came ploughing straight for the lower tip of Manhattan, hoping there to make a last stand against the hundreds of tiny enemies that still clanked after them. They had been reduced by half when they came smashing, crashing into the wall of buildings that formed a final buttress.

Earthquakes hadn't been able to shake Manhattan but the island seemed to sway from the effect of this tremendous climax. It was a test of irresistible forces meeting immovable bodies. Neither type could stand the strain. The irresistible Earthian machines climbed like crests of mighty waves above the immovable towers of Manhattan; then all collapsed together, in one mad jumble.

THIS happened all around the Finance Building before the astonished eyes and frozen face of Vela Smath. How many of the defenders managed to get out of the skyscrapers before the crash, Vela couldn't guess. But there weren't any survivors from the mangled Earthian machines. As wheels and axles broke, the falling shells split open and from them tumbled hundreds of green figures the size of Roq, like so many peas spilling from pods.

Professor Zurow grabbed Vela by the arm while Roq was madly trying to contact Earthian headquarters. Zurow still held the pulvignun; he used it to blast open the penthouse door. Down two flights of steps, they found the elevator. There was no power, but they coasted it fifty floors to the street, the safety devices acting as brakes. The ground was still shaking from the blasts of unused bombs exploding in-

side the shattered metal monsters, but the greatest burst was yet to come.

It occurred after Zurow had uncannily guided Vela through vast piles of wreckage and debris to a safe distance from the Finance Building. There, as they paused to look back through the haze of dust enshrouding shattered war machines and tumbled buildings, a gigantic gush of flame tongued half a mile high with an accompanying roar that rolled back the dust clouds to reveal what remained of a tall, four-sided structure that looked like a huge, jagged chimney-stack.

Roq Bartha had blown the top off the old Finance Building and his own top with it.

HOURS later, it seemed, Zurow and Vela reached the slightly familiar Midhatten section, which had suffered least of all because its buildings were the lowest. Vela sat down on a bench that

she remembered and dully watched a bee that buzzed around her hand but did not light. Definitely, the bee preferred other hands than Vela's. Her thumb wasn't green.

Professor Zurow was buzzing too, about today's great victory and its effect upon history, ancient as well as modern. It represented the climax of an old war that had been going on for ages, so Zurow claimed, between the hidden Earthians and the unsuspecting Surficians. The world was saved for those who dwelt upon its crust; for how long, the professor was not sure.

As for Vela, she didn't particularly care. All she could see was settling dust, where buildings of all sorts and sizes used to be. New York was still the Gibraltar upon which the upper world depended.

But it would never look the same.

—THE END—



SECRET OF THE LOCKED LABORATORY

By Bruce Crandall

IT WAS A STRANGE AND MYSTERIOUS ROOM OF DEATH THAT LINDA HARCOURT DISCOVERED IN HER HOME WHEN SHE USED THE ODD-SHAPED KEY

LINDA HARCOURT stepped cautiously into the laboratory. She felt a shivery chill of expectation, not knowing what she would find. Her uncle had always been so secret about his work that now that he was away at a scientific convention, she could not resist exploring the forbidden room.

How fortunate it was that I saw him hide the key in that cake of soap, she thought. Now, at last, I will find out what has been going on in my very own house.

The laboratory door had opened noiselessly on well-oiled hinges. She walked a little way into the room and it closed silently behind her. But Linda was too preoccupied with the sight that met her eyes to notice this.

The laboratory, a great scientist's workshop, was spread out before her in all its gleaming fascination. She said aloud, "It's not as if I didn't know something about science." She thought rather smugly of the chemistry and physics degree she had received from the state university. "Uncle Alf should really let me help him with his work."

She walked quickly to the right side of the room where a huge electronic ray apparatus was set up. Seven dials were visible on the control panel. "I wonder what this is for," she said, twirling the largest dial gently with her finger tips.

Suddenly the machine began a strange humming. Its nozzle was directed at the ceiling and she looked up quickly. The white plaster was turning a dark brown from the force of the voltage being shot through it. Linda moved another of the dials and a green light streamed from the ray. Rapidly she adjusted one dial after another until a beam of pure white light was penetrating the ceiling of the laboratory. As the dials were twisted and adjusted, all the colors of the spectrum flashed before her eyes.

Seeing a sheet of metal on a nearby table she placed it in front of the ray. It flared up a brief moment in a sheet of flame and disappeared into nothing.

"My God! It's a disintegrator ray," Linda gasped as she snatched her hand away just in time. "But why didn't the ceiling melt?"

"Because, my dear, it is made of a special substance which I myself have created to withstand the power of my ray," said a soft voice at her elbow.

Linda jumped and let out a small scream. Uncle Alf! You startled me! I didn't expect you back so . . ."

"Obviously not, Linda," Alfred Harcourt's voice held an edge of menace. "I thought I told you never to come near my laboratory."

Her voice was dry as she answered him. "I didn't mean any harm. I was just so curious . . ." There was something frightening about Uncle Alf. He no longer seemed the kind, gentle man who had brought her up from childhood, since the death of her parents.

"I'll . . . just go get you something to eat now. You must be hungry after your trip," Linda tried to make her words sound normal and casual. Suddenly she wanted nothing more than to get out of the laboratory, the room that had haunted her imagination for the last three years.

"No, my dear, as long as you are here, you might as well see everything. The food can wait," her uncle said quietly. Something told Linda not to protest.

"You have already seen the ray. It is a powerful thing, 600 billion volts of pure electronic current go through that barrier at a turn of the dials. It can melt any substance known to man — except one. And that is the special material I myself created. I alone have the defense against this weapon. Do you know what that means Linda?"

"Why . . . why, it means that the United States has the most deadly weapon ever invented, even more powerful than the atomic bomb. The ray apparatus is about the size of a medium tank. It could be moved anywhere in the world."

"You have a very clever mind, my

child, and you grasp things quickly. However, you have made one slight mistake. The United States does not have this weapon. I have it!" A strange light gleamed in his eyes. "There are also other little things in here that might interest you. Perhaps, now that you know about it, you will be able to help me with some of them."

LINDA did not answer. She couldn't believe the obvious meaning of her uncle's words. She walked quickly to the other side of the room where he pointed to a small metallic box that had not previously caught her eye.

"This is my other pride and joy, the sister of the electronic death ray."

"What is it?" asked the girl. She noticed that a pair of ear phones were connected to the machine.

"It is the smallest and most powerful wireless radio in the world. Radio is not really the proper name for it; it does more than catch either waves or electronic impulses. This machine can pick up the thoughts or words of any person anywhere in the world. It is actually a machine that can read men's minds."

"I don't believe it," his niece exclaimed.

That seemed to anger and challenge her uncle. "Here," he said, handing her the head phones, "you understand French. I shall give you at this very moment the unspoken and spoken thoughts and words of the President of France."

Linda put the phones to her ears and listened as Alfred Harcourt fiddled with the dials a moment. "You hear it?" he asked. She nodded her head. It was incredible! She could hear a diplomatic conference in French. Words were spoken, then contradictory words came through to her in a softer tone. Those must be the thoughts.

"You see what I mean?" her uncle asked her. "The duplicity of men on this earth. How do you think I knew you would be in my laboratory? I



heard your thoughts the day you saw me hide the key. I did not have to go to that scientific convention. I could find out what was going on and more than that, what was not said, just by sitting here by my telepathy transmitter."

"You mean you purposely let me trap myself?" she asked in surprise.

"Of course, my dear. I decided that it was about time to enlist your aid and intelligence in my scheme."

"Scheme?"

"Linda, I hope you do not think I have spent thirty years of my life on these experiments so that I could turn them over to a government whose leaders are as false as any other. The human race is depraved. Men lie faster than they talk. I know. My transmitter tells me these things. We must wipe out the human race and start all over again. I have found a few sincere people. They shall be spared and shall form the nucleus of my new civilization." His voice took on a wild, passionate intensity and a fanatical look came over his face.

Linda moved back in horror. "Uncle Alf, you can't mean that! It isn't human to expect people to say just what they are thinking. You can't control men's minds."

"But I can! When I am ruler, no heretical thought will escape my notice. And the body that is host to such a thought will be eliminated immediately by my death ray." He rushed over and flipped the dials on the electronic gun, then placed a rabbit from a nearby cage in the path of the powerful white beam. The small animal vanished into thin air, and her uncle laughed gleefully. "See how simple it is?"

The girl's face was white and she shrank back against the door of the laboratory, trying frantically to open it.

"You can't get out, until I wish you to go," he told her harshly. Then his voice became soft and insidiously persuasive. "Come, my dear, you have been like my own child all these years. I need help now, and I want you to help me."

Too frightened to disagree with him, she murmured, "Yes, Uncle Alf. I'll help you. But . . ."

"No buts. There is a young man coming here tonight. He, too, is a scientist. I have never actually met him, but day after day, for months, I have tuned in on his thoughts. He is utterly sincere and honest, the type of man my world needs. I wrote him and asked him to visit us. Together the three of us will rule this earth!"

HER UNCLE put on the ear phones and listened intently for a moment. "He's coming now. I can hear him



A SENSE OF FEAR AND FORBODING PERVADED ALL OUR THOUGHTS.

talking to the taxi driver." His penetrating glance fastened on his niece. "Remember, Linda. I will handle everything. I will not have the dreams of a lifetime destroyed, even by you."

They walked out of the laboratory together, Alfred Harcourt pressing a series of intricate controls along the paneled wall in order to open the door. The small, wizened, grey-haired man with lines of care and concentration etched deep into his face holding the hand of the slender, dark-haired, dark-eyed young woman.

Linda could scarcely believe the change that came over her uncle once they left the laboratory behind them. His cheeks became pinker and a jolly, twinkling look was in his eyes. He opened the door with a fussily cheerful manner.

"Dr. Channing?" his voice was warm and friendly as he greeted the young man. "I'm Alfred Harcourt and this is my niece, Linda. I'm so glad you could come."

Roger Channing was tall, blond, well-built, in his early thirties, with humorous, slightly irregular features. He was not conventionally handsome, but his face had a pleasant rugged quality that was undeniably attractive. Linda was drawn to him immediately.

If only I can warn him about Uncle Alf, she thought frantically. Then blind panic overcame her for a moment until she realized that her uncle could not read her mind except when he had his transmitter tuned in. I'll have to be very careful from now on, she told herself.

They were drinking coffee in the

living room, and the conversation had been so normal that Linda began to think she had imagined that horrible hour in the laboratory when Uncle Alf turned to the young man.

"Come to my laboratory, Dr. Channing. I have something I want to show you. Linda, my dear, you wait right here." There was no mistaking the command in his voice.

For the next hour the girl frantically attempted to keep her mind totally blank. When they emerged from the mysterious closed room in the back of the house, Roger Channing's face was white and stunned. Her uncle, however, chatted volubly of his plans to conquer the world.

Lying in bed that night, Linda heard a faint knock at the door of the room. She quickly went to it and there was Roger Channing, still completely dressed.

"I must speak to you," he whispered. "It's about your uncle. I think he is mentally deranged. We must do something."

"I know," the girl replied. "I've been frantically trying to figure out a way to get help. I'm so glad you're here." She looked up at him wide-eyed.

"I've got a plan," he said, glancing furtively around. "Tomorrow morning I'll keep him busy in the laboratory and you go for help. I'll have him explain the death ray to me so he won't tune the telepathic transmitter in on you."

A slight noise came from Alfred Harcourt's room and Roger Channing vanished down the hall in a flash. Linda crept silently back into her room, her heart pounding with terror. Then she thought of Roger Channing's strong reassuring presence and the immediate command he had taken of the situation and fell asleep with a smile on her lips.

THE NEXT morning the two men closeted themselves in the mad scientist's workshop. Linda slipped quickly into her coat and skirted the house, terrified that she might somehow be stopped by her uncle. Then she ran, stumbling several times in her frantic haste, toward the home of their nearest neighbors, half a mile down the road. When she got there, the old white farm house was ominously silent. No smoke came from the chimney and there was no sign of life.

She pounded on the front door until her knuckles were raw and bleeding, but no one answered. Terrified, she tried all the doors. They were locked.

"What'll I do," she panted. "What'll I do?" At any moment her uncle might turn against Roger for some reason and kill him. And Roger was her only hope of escape, together they were the only ones who could prevent

her uncle from carrying out his crazy scheme to destroy the human race, except for a few chosen beings.

A large window caught her eye. She picked up a huge brick and flung it through. Glass splintered in every direction, but the opening was made. She broke more of the glass with a wooden stick and managed to get her slim body through the opening without cutting herself.

The telephone was on a table in the hall. She picked it up, almost screaming with relief when she at last heard the dial tone. "Give me the police," her voice trembled nervously. "Hurry, please."

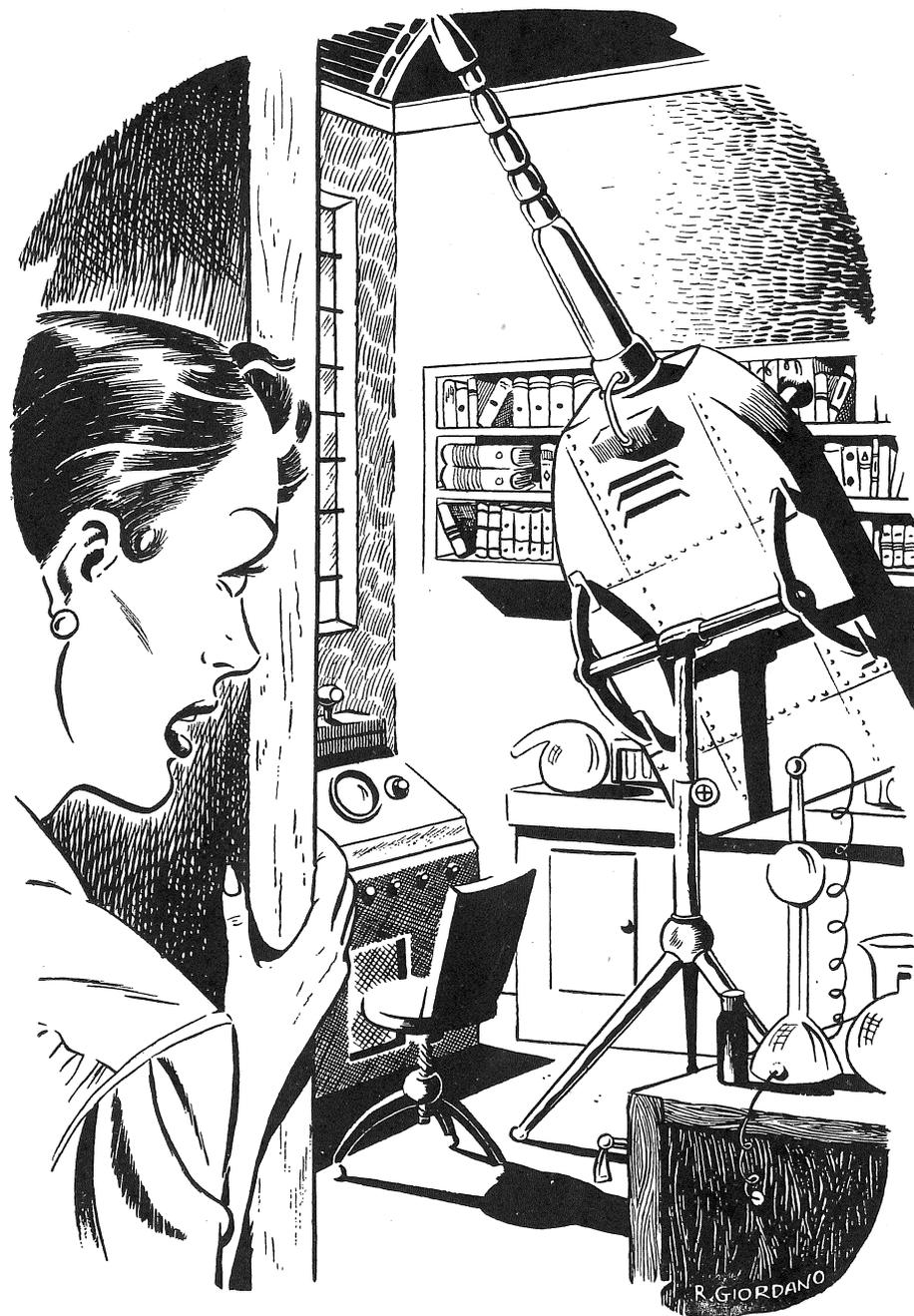
In a few moments she was connected with the local sheriff. In a few

words as possible, she told him her story. "Bring five or six men. He may get violent, but as long as he's out of that laboratory, he can't do too much damage. Oh, come quickly, quickly."

The sheriff's voice was skeptical as he answered her, but finally he promised to send a few men out to investigate. Linda leaned weakly against the wall after he had hung up.

"I'd better get back to the house," she muttered. "It wouldn't do for Uncle Alf to get suspicious."

THE ELDERLY man was waiting for her at the front door when she returned. She tried to give him a bright smile. "Well, have you and Dr. Channing finished your work already?"



LINDA WAS LOOKING AT THE MYSTERIOUS LABORATORY HER UNCLE HAD ALWAYS KEPT LOCKED.

His eyes were narrow and mean looking. "Don't try to fool me, Linda. I know where you've been and what you've been doing. You should have known better than to cross me up. But you and Dr. Channing will pay for your mistake."

"What . . . what do you mean?" she asked in horror. "Where is Dr. Channing?"

"In the laboratory, my dear. That is where I am taking you." He grabbed her arm roughly and dragged her back to the heavy closed door. Linda struggled frantically, but there was amazing strength in her uncle's frail-looking form and her efforts were to no avail.

Inside the thick white walls she saw Roger Channing tied and gagged securely in a chair. His eyes bored deep into hers, as though he were trying to give her some message.

"You thought you could keep me away from the telepathy machine, did you?" Alfred Harcourt snapped.

"Please, Uncle Alf," Linda begged. "You're ill. I only wanted to help you."

"Ha!" he shouted. "You think I'm crazy. Well, no one is going to lock me up. I'm going to rule the world. It is only a pity, Linda dear, that you and Dr. Channing won't be around to see it."

"But . . . you couldn't . . . you . . ."

The door bell interrupted her. The scientist took some rope and tied her to a chair next to Roger Channing. Then he disappeared in the direction of the front door. In a few moments her uncle returned, tightened the gags over the mouths of his two prisoners, and put them behind a curtain in the corner of the room.

"From here you will be able to see everything," he whispered evilly, "but no one will be able to see you." Then he was gone again. In a few moments he returned accompanied by Sheriff Wallace and his deputy.

"You see, gentlemen, my niece has not been well. She is given to hysterical delusions. All this talk of death rays is ridiculous. Here look at my spectroscopic." Harcourt turned on the electronic ray and flashed through the colors of the spectrum until he had achieved the pure white light. Then he turned it off.

"Say, that's pretty," the deputy muttered. "Do it again."

LINDA AND ROGER tried frantically to signal the two police officers, but their efforts were in vain. Harcourt maneuvered them into a position directly in front of the deadly electronic voltage.

"I thought the girl was balmy when she . . .," Wallace started to say. Just at that moment the inventor flicked the main dial, the machine hummed,



AS THEY WATCHED, THE HOUSE GLOWED EERILY.

and the sheriff and his deputy vanished. The only trace of their presence was the hat Wallace had left on the table.

Alfred Harcourt walked over to his prisoners, a pleased smile on his elfin face. "See how simple it is. You won't even know what has happened. Really a very humane death. No pain, no lingering agony."

He loosened their gags. "I don't believe we'll have any more visitors, so there is no need for you to be uncomfortable." He walked to the telepathic transmitter and listened for a moment. "No, no more visitors."

Linda and Roger were struggling frantically to release themselves while

the old scientist was absorbed in his machine. He apparently had it turned to something that intrigued him, for every few seconds he would mutter: "Those men! Fools and liars, all of them!"

Hurry, hurry, thought Linda, while there is still time. She knew that at any moment her uncle might tune the powerful electronic waves of the telepathy transmitter to her own mind.

Roger had his hands free! But just then Harcourt turned around and the young man held them behind him as though they were still securely bound.

SUDDENLY they could hear an insistent pounding at the back door. The

mad scientist looked up in surprise, obviously taken unawares. "I must answer," he said to his prisoners. "But I'm sure you won't mind waiting for me. You have no other plans," he laughed nastily.

The minute the heavy laboratory door had closed silently behind him, Roger Channing reached over and untied Linda, then removed the ropes from his own feet. Frantically they searched for a means to escape the workshop. There was none. The door had no knobs and pushing the myriad buttons on the control panel produced no results. The laboratory had no windows, air being circulated through small vents high up in the walls.

"We're trapped," Linda moaned.

"There must be some way," Channing panted. "If I could only get this door to open." He manipulated the buttons as the professor had done, several times, and then slowly the door began to push inward. He grabbed Linda's hand and started to dash through it, only to be confronted by the evil, twisted face of Alfred Harcourt. By his side were two small children.

"These little ones," the old man leered, "came to beg for food. They say they are hungry. We shall see."

"What are you going to do with them?" Channing asked warily.

"I'm going to see if they are telling the truth." He went over and tuned in the telepathy machine. The little boy and girl stood staring in awe about the fascinating laboratory.

Linda stood there, a numbness flowing over her as she watched the laboratory door close once more. There had been a chance, just a second ago, when she and Roger could have escaped. But how could they leave two helpless children in the clutches of her mad uncle.

Alfred Harcourt turned around again. Apparently his attention had been diverted from his niece and the young doctor for the time being. He didn't even appear to notice that they were no longer tied up. Now was their chance to do something.

"These children have just eaten a full meal," Harcourt said bitterly. "They are greedy little liars. They have no right to pollute this beautiful earth. I had not intended to start my elimination of the human race quite so soon," his voice took on a low, menacing tone, "but events seem to force me to quick action. Into the death ray with them!"

"No!" Linda screamed and threw protecting arms around the now-frightened youngsters. Roger Channing made a flying leap for the old man, knocked him down and shoved the telepathy transmitter off the table.

They struggled on the linoleum floor, rolling over and over, gasping, cursing, hitting wildly. Roger was young and in excellent condition, but old Harcourt seemed to be possessed of a maniacal strength.

Linda rushed quickly to the door, tried the combination of buttons Roger had finally used successfully. When the door swung open, she pushed the children out ahead of her and raced to the telephone. It was dead. Her uncle had cut the wires.

BACK in the laboratory, the terrified girl saw the two men still locked in mortal combat. She went over to the electronic ray and turned the big dial. The weird hum began and the brownish discoloration again marred the ceiling. Then she moved the other controls until she had the deadly, pure white light.

"Get way from him, Roger," she shouted loudly. "Get away from him." Roger managed to break out of the scientist's frenzied grasp and stumble to her side. Then she turned the death ray on her uncle and in less than a second he had disintegrated completely.

"Turn it off, Linda," Channing gasped, weakly leaning against the wall. "Turn it off."

She moved the dials; nothing happened. The hum continued. She twisted and turned them with fumbling fingers. Still the machine would not be silenced. It seemed to have a life of its own. She tried to turn it back toward the ceiling, but the controls had jammed.

The pure white light was beginning to melt the linoleum-covered tile floor of the room.

"We've got to get out of here," her companion said. Linda made one more attempt to get the electronic ray back under her control. It was futile. The machine rumbled and the hum increased in intensity, almost as if it sensed that it had destroyed its own master and now had a will and power of its own.

"Look at the death ray," Linda whispered in weird fascination. "It somehow reminds me of Uncle Alfred."

The two young people hurried to the door of the laboratory, which had remained partially open. As they escaped the mad scientist's workshop, they slammed it behind them. Racing down the hall, they turned once more to look at it. A pure white light was shining through the heavy oaken panels.

"The ray!" Linda screamed. "It's following us!"

They got outside somehow, breathing heavily, and ran across the fields. The white light seemed to follow them to the outer walls of the house. From a distance the whole structure seemed to

be glowing. Suddenly there was a soft, swishing around, as of a muted explosion, and the home of Alfred Harcourt disintegrated into nothingness, as though it had never existed.

Roger Channing put his strong, gentle arms around the shivering form of Linda Harcourt. "It's all right, dear," he murmured softly. "It's all over. A horrible nightmare, but it's done with now and you must try to forget. We must both try to forget."

She closed her tear-filled eyes and lifted her face to his.

—THE END—

LOST— ONE WORLD

On March 21, 1877, nearly every telescope on Earth was trained toward the sky to witness the return of the planet Vulcan, a mysterious world that many astronomers were confident existed. But when the scheduled time of Vulcan's arrival and departure both had passed, with no sign of the truant planet, the scientific world crossed the name off their lists.

The Vulcan story, which created as great a sensation in its day as the Flying Saucers have in ours, was in no sense a hoax. Back in 1846, a young French astronomer named Leverrier had calculated the existence of a planet beyond Uranus, which was then supposed to be the outermost body in the solar system.

Leverrier's figures proved correct. The planet was picked up by telescopes and given the name of Neptune. Warmed by his success, Leverrier turned his attentions to the inner circle of planets and decided that there was a planet closer to the sun than Mercury. He based this decision not only on calculations but reported observations of other astronomers over many years, culminating with one in 1859.

Only Vulcan never showed up in 1877. A body that resembled it was seen by a few astronomers in 1878 but it didn't fit in with Leverrier's calculations. Still, if Leverrier had been a year off, perhaps some of his other figures needed correction. Today, the skeptics insist that a lot of astronomers were just seeing sun spots through bad telescopes. But it doesn't pay to be too sure where the mysteries of the heavens are concerned. Maybe some day Vulcan will appear to brighten Leverrier's tarnished fame.

THE Lost City OF THE SKY

A CITY OF DAZZLING SPLENDOR IN THE SKIES BROUGHT ADVENTURE TO TWO SCIENTISTS WHO DISCOVERED A NEW USE FOR ATOMIC POWER

I first saw Nanito in that small cantino in Merida. Her magnetic beauty and her stately pose — those deep, sad blue eyes and the long flowing golden hair, seemed weirdly out of place in the smoke filled room where dark skinned Mexican women of the street moved snake-like from table to table among the Mexicans with their tight fitting dress and their wide rimmed hats.

She seemed to have come from nowhere and was staring at me. Her eyes did something to my skin that wasn't pleasant. I wasn't sure whether it was actual fear or a sense of forboding. Then she had disappeared as if she had suddenly been swallowed up by the rancid and foul smelling smoke that filled the room.

Two months later Nanito was staring at me again. This time I wasn't in a cantino. Rather I was in a small tent with Professor Felix Cartwright at the edge of the Peden jungles in southern Yucatan, the land of the lost race of the Mayas. I had no idea what time it was. Professor Cartwright and I had retired early and had fallen in the deep slumber that comes of physical exhaustion.

No distinct sound awoke me. Rather a ghostly, unearthly silence and the subconscious feeling that somebody was looking at me. The noise that never seems to stop in the Peden jungle was gone when I opened my eyes. The Macaws, the screaming peccas, the world of a thousand insects—all this had suddenly ceased, as if the presence of Nanito was a warning to the jungle life.

I blinked and then said: "My God, you again? What is it this time. Are you a ghost following me?"

"I am not a ghost," she spoke softly, in clear and perfect Spanish. "I have come to protect my people."

Professor Cartwright stirred, opened his eyes with sleepy astonishment, and uttered a cry and leaped out of his bed.

"You!" he cried, staring at Nanito. "You . . . you . . . have come . . ."

THE whole tableau was crazy, utterly insane, and completely beyond my comprehension. For that matter, the whole expedition had been the same to me. I knew Professor Cartwright at the State University where I had been graduated the year before. He was small, wizened, with a body that didn't seem to have an ounce of flesh on it. There was a jerky jump to his walk and he talked the same way.

He was a scientist and a recluse. Some years before he had given up teaching as he had a good private income and had constructed a laboratory behind his home some distance from the campus. Few persons ever gained admission to this laboratory, and the few that did told strange stories of what they had seen.

The professor had been friendly to me when I was a student, but I had never been to his laboratory as I was away from the campus a great deal of the time, being professor in the extension department, which required traveling.

One night sometime after midnight my doorbell rang. Professor Cartwright was there, carrying an oblong shaped black box. His wizened face was flushed with excitement.

"Jim," he said. "I got it. Sure, I got it . . . the most wonderful thing in the world . . . It will solve the great mystery . . . I can't tell you much now. The ray . . . the ray of atom power . . . no ray . . . I tell you, no ray like it . . ."

He lay the black box on a table and opened it. There were a series of dials and levers which didn't make much sense to me. Yet I knew Professor Cartwright's genius and I sensed that this oblong black box held some new mystery in the use of atomic rays.

The next day he broached the proposition that I accompany him into the

Peden jungle. He didn't say much about the purpose of the expedition, but I knew that the secret of the lost Mayan race had long been something of a phobia with him. It was late spring and I had the summer ahead of me with nothing to do, so I consented, always being easily tempted if adventure lies around the corner.

On the trip to Merida the professor was as excited as a small boy and his jerky conversation left no doubt in my mind that he hoped, through the use of his new ray, to find the hidden city of the Mayans, although he was careful not to tell me just how that oblong box was going to do the trick.

He wasn't present at the cafe when I first saw Nanito, but now with her standing before us in the tent, he acted like he had met a long lost friend. His nervousness was gone and he calmly lit the lamp light, and in its rays Nanito's beauty seemed a hundred times greater and her body seemed like a ghostly apparition.

"I knew I would find you," the professor cried. "There can be no mistake. That exquisite beauty, those high cheek bones, that golden hair. Tell me, my dear, are you a queen of your great race lost so long to our civilization?"

THE stolid expression on Nanito's face didn't change. Her lips moved as she said: "You have sought to find us to destroy us. That box you have with its rays. You think you have discovered something great. My people knew the secret of the atomic ray long centuries ago. It was the only thing we feared of your base civilization. It was when you dropped that first bomb on Hiroshima that we became frightened. We knew when you dropped it. Kukulcan told us. She tells us everything."

Nanito was holding a small jade statue that gleamed ominously in the rays of the lamp. Professor Cartwright gave an excited cry. "It is Ku-



NANITO STOOD THERE IN MAJESTIC BEAUTY TO GREET US

kulcan, the goddess of the ancient Mayans. It is true now . . . you are from the lost city. You are not a figment of my imagination."

"Kukulcan gave us the secret of the atomic power many, many centuries ago." Her voice remained soft and well modulated. "When we displeased her, she used it to destroy us after the Spaniards came. Kukulcan was angry because we did not fight the conquerors, but we had never known your civilization before. We thought you were good and kind like we were. But the Spaniards murdered our women and children and drove our warriors into the jungles. And Kukulcan, angry at our failure, destroyed our great cities and most of us. One small group of warriors had defeated the Spaniards in battle and Kukulcan took them to a far off place and here the Mayan civilization started again, safe from the prying eyes of your civilization."

"Great," Professor Cartwright was clapping his hands like a small boy. "Now we will find that lost city. My rays can locate it . . ."

Nanito moved the jade statue in front of her. It was a grotesque looking thing, like a feathered serpent.

"Kukulcan will put you to sleep . . . put you to sleep . . . put you to sleep."

Those words were racing through my mind as a strange drowsiness began to seize me. I struggled against it, but my efforts were futile and weak.

The next thing I knew I was being carried by powerful arms through the darkness. I was placed on a narrow steel couch. Then there was a clanging sound over me. I was asleep, yet I knew everything going on around me.

Then there was the feeling of being lifted up. Somewhere near me was a humming sound, like a powerful engine of some kind. I was conscious of terrific speed. How long this lasted I have no way of knowing. The spell Kukulcan cast over me was gone and I was wide awake, but everything around me was in darkness. I reached out with my hands and touched cold steel that seemed to be vibrating gently.

I called out: "Professor."

"Yes, here I am," came his reply. "Exciting — marvelous . . . we have found it . . . we have found it . . ."

"I have a feeling," I answered, "that what we have found isn't going to be pleasant."

THEN suddenly the terrific speed seemed to ease up and the next thing was a jarring bump that shook us up rather badly.

"We've arrived," I said to the professor, "and I hope you are satisfied."

"Marvelous," he repeated.

Light flooded down into my eyes, and for a moment I could only blink, getting my eyes accustomed to the brightness. When I did that, I saw that an early morning sun was shining down in my face. Powerful hands lifted me up and I was on my feet, standing on firm ground.

At first I was certain I was having some impossible dream. It was unreal, utterly impossible as reality. The ship that had carried me and the professor to this spot was a squat object that looked like a huge beetle. There were no wings and no propeller, yet it was an airship of some kind and make.

We were on a small flat plateau that apparently was used as an air field. Other machines like the one we had come in were all around. And beyond this plateau loomed a beautiful city of white. In the center was a palace that far exceeded the glory and the beauty of the famous one at the ruins of the Mayan city of Chichen-Itza, and stretching away from this structure of gleaming white was a colonnaded court.

Beyond were other snow white buildings, gleaming with a dazzling brightness in the morning sun. One was an outstanding tower similar to the one at Planeque. The brilliant city stood on the side of a hill, looking down on a fertile and beautiful valley, cut up in small farms.

A group of men were running to meet us. Nanito stood there, as majestic and as beautiful as she had been in the tent. I took it that the men approaching us were soldiers. They wore white tunics, like the ancient Romans, but they did not hold spears. They had guns that looked very much like sawed off shotguns, yet without cylinders or gun stocks. The steel was a peculiar bluish color.

They were yelling something that sounded like "Spansiski, Spansiski."

Professor Cartwright was watching it all, his face flushed with excitement. "That is the Mayan word for Spaniards. They must think we are soldiers of Cortez."

"I don't care what they think," I answered. "I don't feel happy or comfortable and right now I wish we were both on the campus at the University."

"Jim," the professor cried, "here we are standing on the soil of ancient Maya. We are viewing something no other white man has ever seen. And you're not excited. It is the climax to my wildest dreams."

Nanito said: "The soldiers will take you to your house. I warn you that you had better go willingly. Those are atomic guns they have and they fire faster and more deadly than your brutal rifles with bullets."

THE soldiers crowded around us.

They were short, dark faced men with broad shoulders and broad foreheads and faces flat like orientals. We had no time for any further conversation. They hustled us off the plateau and down a stone street to a low, much carved building near the rear of the palace.

Great crowds gathered in the streets to watch us and there was wild and excited talking and a lot of yelling. The men in the street wore the white tunics. Like the soldiers, they were short and heavy-set, with quite broad shoulders and foreheads. The women all seemed taller and lighter and each was garbed in a green robe of some kind.

Inside the one-story structure, the professor and I were placed in a large room with a stone floor, stone walls, and a low stone ceiling. There was no furniture whatever. Two mats were the only beds and other mats were placed around, apparently to take the place of chairs. The great stone door was closed and we were alone.

The professor walked up and down, swinging his arms and exclaiming: "Wonderful . . . the greatest moment in my life."

"Professor," I asked, "where is your oblong box?"

This brought him back to reality and an amazed expression came over his face, as if he hadn't thought about the oblong box before.

"Oh," he finally said, "they will give it back to me. I can teach them many things about atomic power and rays and I know they want to learn."

"I got the impression," I answered, "that this was just what they didn't want, and this fair faced and golden haired goddess was sent out to spot us before we discovered the location of this city with your atomic ray. I also got the feeling, very pronounced, that they didn't like the idea of anybody finding them and they were ready to do plenty of evil to anybody trying it."

"This is excitement," the professor protested. "This is living. Not the excitement of seeing a football game, but real, honest-to-goodness adventure. I have dreamed about it all my life."

"I'll take football any day," was my comment.

THE great stone door opened and two men with dark robes came in carrying dishes of food. Three soldiers were behind them, holding the atomic rifles. The flunkies backed quickly out of the room, as if terrified of us, and the great stone door closed. The food wasn't bad. It was a combination of ground corn, meat, and roots. And with it were two pitchers of corn wine that warmed your insides and showed every indication of giving you



THEY DRAGGED ME TO THE POOL OF THE VIRGINS AND I KNEW DEATH WAS CLOSE UNLESS THE PROFESSOR WAS RIGHT!

a good jag if you drank too much.

"Excellent food," the professor exclaimed. "I'll have to get the recipe and have my wife try it."

"Professor," I said wearily, "I don't want to be a pessimist, but doesn't it occur to you faintly that you may never see your wife again? These people, from all I have read about them in the ancient days, weren't nice when they got mad. They liked to kill people. And I think they are mad as hornets at us right now.

"They're not as smart about atomic power as they think," the professor chuckled. "Maybe I can show them something myself."

An hour later the door opened and Nanito entered. She looked at us with her sad eyes and then said abruptly: "You will be taken before the Luticci, the board of our elders. They will decide your fate. Until that time you will have the freedom of our city. It would be foolish for you to try to escape."

And with that she turned and was gone.

Sometime later, while looking over our prison room, I tried the stone door. It opened easily and the hall outside was empty. The professor and I ventured out, cautiously at first, half expecting the soldiers to appear any

minute. None did. It was afternoon and we walked out on the colonnaded court. People passed us, paying little attention to our presence.

For the next four days we had complete freedom of the city. Soldiers may have been shadowing us, but if they were, they did a clever job because we never saw them. The first few hours outside our prison told both the professor and myself that any attempt to run away would mean certain death. The city was on a plateau so high that the earth below the city and fertile valley was lost in a deep, shifting mist.

Professor Cartwright had the time of his life in these few days of freedom. He went to the great astronomy tower where the priests computed the time and the weather conditions.

"Amazing," he exclaimed to me the next evening. "They still use the katon as their calendar, just like the ancient Mayans. Each katon is twenty years. More efficient and more detailed than our Roman calendar system."

CALENDARS and science the Mayans used didn't interest me. I had few illusions as to what would happen to us when we were brought before the court of elders. I had passed the

"Death Pool" where the Mayans dumped the bodies of their enemies after death. I was trying to figure some way to escape, but I had little luck.

Yet I was greatly impressed with the peaceful life of the city. People came and went quietly, without showing the strain we see in our own cities. I learned that the farms in the fertile valley where they grew corn, peppers, beans and cocoa were held in common by the village, parceled by the farm chief to individuals in accordance with their ability to raise good crops. Bees seemed to be everywhere, large and domestic ones, and honey was the basis of much of their food.

There were no signs of poverty. The dress of the people was of excellent quality cotton, spun and woven into fabrics which had a silken delicacy. The priests wore white robes with gold trinkets and they seemed to be the most important citizens.

Their architecture was perhaps the most brilliant and dazzling part of that mysterious city. The material used was a hard and shining white limestone, embedded in firm mortar, well cut and exactly fitted, and lavishly carved on every part with mythical and historical figures and

hieroglyphic inscriptions. Translation of these hieroglyphics is one of the most difficult problems of American archeology because the Spaniards destroyed most of the ancient books and also any key that might exist to their meaning.

ON the third day the whole character of the city changed. Instead of the quiet and peaceful atmosphere, there was a tenseness and considerable running around.

It wasn't until I returned to my prison cell that I learned the reason. The professor, delved into every phase of the life of the city and the people with all the ardor of a student of science, had learned a great deal more than I had.

"Somewhere up in New Mexico they must have exploded another atomic bomb," he explained to me. "These people have extracted atomic energy from the air, something our scientists have been trying to do for years. They have a huge seismograph which records all the atomic waves and they know when atomic energy is anywhere in the world. They are afraid of this because they know it is only through an atomic ray that their city might be found. They just ask to live in peace and be left alone. A very intelligent and remarkable race."

"What did you find out about this blue-eyed Goddess of Death, Nanito?" I asked.

"She is the daughter of the queen," Professor Cartwright replied. "Queen Bebita rules the city. She has three sons, the oldest will take her place as ruler. Nanito is something of a spy for the Mayans. She has been out in the world and when they get a tip that danger is near — such as my oblong box, she is sent out to stop it. A very capable girl."

"I'd say she is," I replied. "We'll probably know just how capable when we get our verdict of death."

The professor gave a chuckling laugh. "Don't let that worry you," he said. "Maybe we won't die."

His chuckling laugh and his words of cheer didn't relieve the depressing feeling I had that it was only a matter of hours until he and I and his atomic ray threat would be wiped out. I had tried to figure out every possible escape, but there were none.

The next morning I was awakened by somebody tugging on my shoulders. I opened my eyes. It was still dark, but somebody was bending over me. Then I heard the professor's whispering voice: "Get up quickly," he said. "We've got to get ready."

I struggled to sit up, still drowsy

and sleepy-eyed. "Ready for what?" I demanded.

"Today they will try us," the professor was rubbing my face to wake me up. "Our chances are not very good. They feel if we live and leave here, we will be back. So the simple solution is to call a holiday and dispose of us via the death pool ceremony. So we must be prepared. Stand up and take off all your clothes. You are to wear this under your clothes."

I stood up, took off my clothes, and Professor Cartwright gave me a piece of heavy cloth and instructed me to wrap it around my waist and shoulders.

"Now follow me and do as I do," he said. "I shall hate very much to do what I have in mind because I have learned to love these fine people. But one must live, no matter what the cost."

When dawn broke some minutes later, our breakfast was brought in. There was something ominous about the amount of food served to us. It was a veritable feast. Fruits in great baskets. Bottles of wine. Specially prepared meats of several types and much corn and peppers and beans.

"In the old days," I said, "Mayans always feasted their victims. This is one meal that doesn't appeal to me."

"Tut, tut," the professor was in an amiable mood. "Don't get discouraged. Try some of this pheasant. It is delicious. And the wine. Ah, a nectar for the Gods."

I ate, but not with the relish of the professor. And when our meal was finished, the stone door opened and Nanito entered, followed by soldiers.

"You will come with me," she spoke in a crisp, matter-of-fact tone. "The Elders will now hear your case."

WE were marched out of the low building, with guards to the right, to the left, and at the rear. Nanito led the way, walking with her long green robe flowing to the ground and her golden hair glistening in the sun.

As we got out to the colonnaded court, I saw at a glance that the entire city was in a festive mood. People were everywhere, dressed in gay colors. Flags were out. There was a low din of animated conversation and laughter from the great crowds that peered at us with morbid curiosity.

Up the long flight of snow white steps to the temple we went with slow and measured tread. Inside the great temple room ten elders, wearing white robes and serpent hats, were in a circle. Soldiers were everywhere with their atomic guns pointed at us.

The ceremony was over quickly. We had no chance to say anything. The soldiers pushed us to our knees and a tall and gaunt old man, who had more feathers in his hat than the others, rose and harangued us in a sing-song voice.

When he had finished, Nanito said, "The elders have found you enemies of our city. They believe if you are allowed to go free, you will make another atomic ray and find our city. If that happens, our city and our lives will be cursed and we will again be destroyed."

She was looking at me as she talked. I asked: "So what now, my beauty? You seem to have done a very good job. We never wanted to destroy your city or harm you. In fact, you can live on for thousands of years in solitude as far as I'm concerned."

"You both have been condemned to die," she answered in Spanish. "There could be no other decision. You will have the honor of dying in the Pool of the Virgins."

My mouth was dry and my heart was pounding against my ribs, but I managed to reply: "What a pleasure, my dear."

I was yanked to my feet and the professor and I were escorted down the long flight of white steps. The crowd below was getting larger and larger and there was laughter and taunting words thrown at us.

Near the Pool of the Virgins, the priests took over, but the soldiers with their atomic guns were close behind. The priests nearest to us were carrying the *hul-che* spears, the favorite weapons of the ancient Mayans, similar in every way to the ones the Eskimos use for fishing. Four tall priests with feathered hats and a lot of gold on their robes had long spears with golden heads.

Professor Cartwright moved closer to me. "Watch me and follow me, no matter where I go. It's one chance in a thousand, but it may succeed."

I had no idea what he had in mind, but I was positive that we didn't have even one chance in a thousand. The pool of death was directly in front of us and the priests with the long spears were ready and eager to do their work.

THEN I heard it again, the low faint rumbling sound that came from the bowels of the earth below me. It was a roar that always seemed to be with you, no matter where you went in the city. I had heard it in our prison room, and I wondered what it was.

Two of the priests had grabbed the



THE DARK SWIRLING WATERS IN THAT PIT OF BLACKNESS CARRIED US ON AND ON TO AN UNKNOWN FATE

professor and me. There was a stone plank that led out over the water, the plank where the virgins sacrificed to the Gods had walked to their deaths.

The professor was ahead of me, and he walked slowly and with a jaunty step, something I couldn't understand.

Then it happened. It came with such rapidity that that minute is still only a vague blur to me. With a wild Apache yell, the professor whirled around. There was a short round piece of steel in his right hand. It was jumping in his hand and making a noise like a cat spitting. Three priests to our right went down, groveling on the stone floor.

Soldiers closed in on the professor, but the steel weapon was still spitting and more soldiers crumpled to the stones. The professor yelled to me: "Come on and run like hell."

The soldiers' atomic guns spat out death at us. Something was biting my body, sending funny sensations over me. I didn't stop to figure what these were. I wondered why I wasn't dead from the atomic guns. The professor had opened a swath in the crowd and was racing for a stone structure about twenty yards away.

I was close on his heels, my brain too numbed to know what was hap-

pening. Then the professor dove into the hole under the stone canopy. I followed and was falling through endless space of Stygian blackness. My lungs tightened and felt like they were about to explode. My head started to swim and I felt consciousness slowly leaving me.

A deafening splash of water broke my fall. I went down below the surface of a surging current. I struggled weakly to come to the top and then suddenly the current seemed to take me and throw me up and carry me forward at a terrific speed.

I heard the professor yelling: "Jim . . . Jim . . . where are you?"

"Here," I answered faintly.

"This rope," the professor screamed, "grab it and it will keep us together."

My fingers closed on the rope. The speed of the current was so terrific I was fighting to keep consciousness. Time was no reality and I have no idea how long I had been carried by the angry waters when I was suddenly conscious of not moving but of lying on a sand bar. Professor Cartwright was at my side and far overhead was a small circle of daylight.

"Okay," I finally was able to say, "where are we and what in heaven's name happened?"

"We are on a sand bar below a cenote," he explained. "You understand that that is the opening to the rivers of Yucatan that run underground. For your information, there are no surface rivers in the Peden jungle. What happened is simple. I had discovered that cenote near the Pool of the Virgins and figured if we could get down it and into the river, we had a chance of being carried far enough to escape the Mayans."

The professor hadn't lost much of his cocky enthusiasm for life and adventure. I had lost all, including most of my strength. It was with some effort that I said: "We are in an underground river, but what chance have we of getting out. Also, won't they follow us?"

"This is a sacred river to them," the professor answered. "They wouldn't dare jump into these waters. After all, why should they? By all rules we should die here."

"What's the difference, dying here or in the Pool of the Virgins?" I questioned weakly. "But how did we get away from those priests and all the soldiers? They shot at us with their atomic guns and we didn't die."

"For the very good reason that we were wearing a protective armor against atomic shots," the professor

said. "You will recall that I had you undress and wrapped that cloth around your body. For your information, that cloth, which you still wear, is made of special nylon with lead tissue. I have been working on such a garment to be worn in case of atomic attack. I had some with me to protect us from rays of the oblong box. That is why the atomic shots didn't kill us."

"That weapon you had?" I questioned. "What was it?"

"A part of my atomic ray apparatus," the professor replied with a laugh. "You see, the scientists didn't figure out the box and they called on me to help them. I took the tube out. The atomic ray from it isn't as powerful as from a gun, but it was strong enough to knock the soldiers down."

"Okay," I answered. "Where do we go from here?"

"Down stream," the professor said and pulled me back into the water.

IT might have been hours, many of them, or days. I will never know. The surging water carried us on and on in a maddening whirlpool of death. Then again we lay on a sand bar. This time we didn't talk. Neither had the strength for words. Our clothes had been torn off by jagged rocks and our flesh lacerated. But there was no pain any longer. The slight consciousness we had left told us there would be no awakening when we finally blacked out.

I never saw the rope and the bucket that came down through the cenote far overhead. Professor Cartwright was lying on his back and in the last flickering of consciousness before his eyes closed, he saw it. He watched the bucket come down and down, like a dying man visions strange things in the last few minutes of life.

The bucket touched him before he realized that it actually was there. With a weak cry, he grabbed it and yanked on the rope. His cry brought me back to reality. Overhead there was wild talking in Spanish and then faces were peering through the cenote.

Minutes later I was hauled up to the surface in the bucket and the professor came next. We lay on the ground surrounded by excited and frightened *chicleros*, the men who search for the *chicle*, from which gum is made, in the Peden jungles. They had camped at the cenote and had put the bucket down to get some water.

Three weeks later we were in Belize, waiting for a ship to take us home. The professor had regained his exuberance for adventure and was talking about another trip in search of the lost city of the Mayans.

I had no interest in the subject.

The End

Interplanetary STATISTICS

When considering the size of the solar system, its actual magnitude becomes dwarfed by the huge distances of the space that surrounds it. This brings unfair comparison, just as if in discussing the continents of the earth, someone kept throwing in the larger areas of the oceans to confuse the issue.

Similarly, it is difficult to use areas as comparisons of various worlds, because we have the question of surface and mass, when applied to spheres, giving two completely different concepts regarding them.

Perhaps the simplest yardstick is that of population. It's not difficult to think of Peoria in terms of Chicago. You can put about thirty Peorias into one Chicago. Not in area, but in people. That's the way we size cities, states and even nations. So why not apply it to planets and their moons?

Our world has a population of nearly 2,400,000,000. That gives it a nice edge on Venus, which just about clears the two billion mark. Mars and Mercury combined would be lucky to top one billion. So we can list the inner planets as close to 5,500,000,000. Earth's moon, if its 175,000,000 were included, would certainly insure that figure.

The moon, in its own class, rates with such satellites as Io and Europa, both belonging to Jupiter. But Gany mede and Callisto, another brace of Big Jove's moons, are two to three times as populous. Titan, a moon of Saturn, tops the lot and furnishes some secondary assistance in Rhea and Japetus.

To make the figures round and full, moonlike so to speak, we can allow a total of two billion. The combined population of all the moons this side of Neptune would about equal that of Venus but would fall short of Earth's total.

Neptune has a moon called Triton which according to some estimates is the real giant among satellites, capable of containing a population of one billion. This would really give the moons a bulge when compared to Earth but Triton is still somewhat of an un-

sized factor. Anyway, with Triton added, the satellites would surely top Earth's population.

All such figures fade when compared with those of the outer planets. Neptune and Uranus individually can support in the neighborhood of thirty-five billion people, giving them each a sixteen to one advantage over Earth. Lump Neptune and Uranus, with seventy billion, throw in all the inner planets with five and a half, plus the moons with their three billion and it makes a respectable total of close to eighty billion. Respectable until you compare it with Saturn, which runs nearly two hundred billion in its own right, or two and a half times the works, as tabulated so far. Add up all of that and you find Jupiter's total. The big boy among planets just about hits the staggering figure of 280,000,000,000 population.

With the others added, the total doubles to 560,000,000,000 as the estimate for all the planets, plus their moons. That is, if they were all populated with people. It may be that their inhabitants are grasshoppers. Considering that we've never taken a grasshopper census here on Earth, the figures would doubtless prove stupendous, so we may as well stick to people.

In population then, as we understand population, the planets and moons comprising the solar system outnumber our Earth on a ratio of about two hundred and twenty-three to one. That's a lot bigger margin than Chicago over Peoria. We'd need about seven and a half Chicagos, with still only one Peoria, to hit the proper proportion, but that isn't too hard to visualize. Unless you aren't familiar with Peoria. In that case use Fall River, Massachusetts.

Of course we haven't included the planet Pluto. Though small in comparison to the outer planets of which it is the outermost, Pluto has more than half a billion population, but that's not enough to throw our figures off sufficiently to make a recount necessary.

Besides, Pluto is a long way from Peoria.

They DIE ON MARS



By PHYLLIS L. KAYE

SGT. Bill Cameron awoke suddenly, troubled by the deep silence that surrounded him. It was only a few moments before he remembered he was on Mars, sleeping in a room in a Martian city.

For weeks he and his thirteen companions had travelled through space in a high-powered, jet engine rocket ship, headed for this strange, ever-fascinating planet. During the last two weeks they had come closer and closer. At first there had been nothing to see, nothing but rocks and valleys covered with a thin green vegetation. And then they saw the city.

From miles outward in space, the city had gleamed in the pale rays of the sun. It hadn't seemed to cover much territory at first, but as they came closer, the area grew, until the men estimated that it must cover

LOY MORALES

many square miles. And over it was a strange sort of transparent dome. Underneath they could see movement, little figures going back and forth in lush green, yellow, and red vegetation.

Then suddenly the day before, just a bit after noon, when they seemed only miles from the city, their motors had stopped. Captain Clyde Roderick had tried everything to start them up again, but it had been of no use. Bill had tried to use his radio, but no responsive words could be heard from the faraway home planet. Up to that time contact had been excellent.

They had prepared for a crash landing into the covered city. It never came. Instead the ship was drawn, at a steady speed, toward the transparent dome and amazingly, sucked through it without causing a break in the covering.

Then it rested in a fertile valley. The men, holding their guns in readiness, cautiously alighted, not knowing what kind of welcome to expect. There had been many stories about the men who lived on Mars. And there also had been emphatic pronouncements that no people lived there because it was too cold and there was no oxygen to sustain human or animal life.

Bill didn't know or care much about these things. He was a radio man, and he had volunteered for the American Army's Expedition to Mars, or AAEM, purely out of a love for adventure. But he had heard the four scientists they carried aboard discuss the subject many times.

When they stepped down from the ship, however, they found no human beings at all, as far as they could tell. Immediately the entire group had been surrounded by dozens of creatures made of metal and moving on wheels. They did not speak, and they moved mechanically.

At first the earthmen were prepared to fight, but the robots had no weapons and their only action was to urge the ship's members down long and winding streets, pushing them gently from all sides.

THE men were herded to the front of a large impressive building, built of stone and roofed with some sort of transparent material, the same as the transparent dome which covered the whole city. A panel in the front of the building slid noiselessly back and they were pushed inside, led through corridors and into this room at the top of the building.

Piles of cotton in orderly rows were the only furniture. Cameron sat down, expecting to land on the floor, but the cotton merely yielded gently to conform to the shape of his body and was not squashed down by his weight.

"Hey, fellows," he called out to the

other crew members as he bounced up and down, "this is really something!"

The others laughed in agreement, but the scientists were scrutinizing the cotton with intense concentration. They couldn't seem to figure out exactly what it was made of. The men were tired and they lay down and slept on the strange substance.

Bill apparently was the first to awaken. He had the feeling that many hours had passed. As they had dropped off to sleep, the sun was going down, and now it was bright daylight again. His watch said eight o'clock.

"I have to get that radio working and tell the folks back home about this," he murmured. Then he looked suddenly toward the end of the room. The strange panel door had opened and the little metallic creatures were gliding noiselessly in carrying trays of food.

"Wake up, you guys, chow is here," Bill yelled to his sleeping buddies. Tousled heads were raised from the soft cotton and the men watched as more of the little automatons filed into the room. Some of the food on the trays looked familiar — there were large red apples and ripe golden pears — but the rest was strange to the eyes of the earthmen. A pale green liquid was there for them to drink and lavender-colored chunks of meat were floating in a creamy substance. It didn't look pleasant, but the men found that it tasted delicious. They ate with hearty appetites.

All except Captain Clyde Roderick, the head of the expedition. Upon first awakening, he had experienced a moment of blind panic at not hearing the persistent roar of the rocket ship's engines that had been with him day and night for so long. Then the events of the day before came back to him.

But now something else was bothering him. He felt somehow as if strange eyes were peering at him — human eyes, not those of the little mechanical men. And he also had the feeling that the scrutiny was not of a friendly nature. After breakfast, Roderick decided, he would call the men together and warn them to be on their guard.

NO sooner had this thought crossed his mind than he found himself surrounded by six of the little robots. They gently urged him to his feet with their stiffly-moving tin arms, handed him his clothes, and waited while he dressed. Then they propelled him quickly out of the room.

The other men started to protest and rush forward, but Roderick called to them reassuringly, "Don't worry! I'll be back. Cameron, you take charge."

The wheeled men took him down long winding corridors into the lower floors

of the building, under the room where they had slept. The lack of sufficient oxygen in the air left him panting slightly when they reached their destination.

He was ushered into a richly furnished room where a small, beautifully proportioned woman sat. He gasped in surprise at the sight of her. She had warm golden skin, long and smooth black hair, brilliant green eyes. Her clothing was of a thin, filmy lavender material that looked like nylon or some other synthetic and clung close to her slender body.

The furniture in the room was of the same type of cotton as the bed Roderick had slept on but was covered with beautifully woven tapestries. The captain turned his attention back to the woman. Her green eyes were fixed on him intently. She parted her pale rose lips.

"Captain Roderick?" she spoke the words precisely, as though she were not quite certain of the meaning of the strange syllables.

"Yes?" he answered in surprise. "You speak English?"

She ignored the question and went on. "You are from the Green Planet. Why have you come here? If you have come to destroy us, I warn you that you will not succeed."

"No, we have come only in peace. There are scientists in our midst, men who wish to learn about the civilization you have built up." She looked into his eyes as he spoke, not even seeming to hear the words. But apparently this eased her doubts. She gestured toward the draped lounge next to her and Roderick sat down.

"If you have come in peace, you shall live in peace. However, there must be no communication with the Green Planet."

"But . . . but," he protested, "I must radio that we have arrived safely. They will be concerned."

"Your radio waves are too powerful. They will destroy our city." Her voice was firm and she spoke the language with more assurance. Doubt was in his mind.

"I will show you what I mean," she smiled.

"That's fair enough, but first tell me how you learned English."

"Why, from you, captain, from your mind. How else would I learn it?" Her amused laugh was warm and musical. She stood up and took his hand in hers. Her fingers were cool and pleasant to touch.

"Come, we shall tell your radio operator, this Sgt. Cameron, to stay away from his instrument. Then I will show you our city."

He didn't ask her how she knew that Cameron was the radio operator. He had a strange feeling that he knew what her answer would be.

They went again down the long cor-



ridors and back to the dormitory at the top of the building. This time, guided gently by the girl, he did not get out of breath. Strength seemed to flow from the small hand in his.

The men were sitting on the cotton beds, now draped with tapestries, and

talking, laughing, and playing cards. Roderick looked at them proudly. They were a fine lot, specially picked for this dangerous and daring secret mission. He and Cameron were Army Air Corps men; Collyer was from the Navy; Jackson, a marine; Drs. Hendricks,

Campbell, Sondergaard, and Villers were famous scientists. The other six men were hand-picked technicians for the rocket ship's crew. Not even their families knew where they had gone.

These fourteen men had lived and worked together in small quarters dur-

ing the trip to Mars with the minimum of friction. But there were only twelve men in the room now, besides Roderick. He looked around suddenly, in consternation. "Where's Bill?"

Dr. Villers spoke up. "He went to look for the ship. He's very anxious to radio home."

The girl's beautiful eyes narrowed swiftly and she seemed to be concentrating hard. "I know where he is," she said suddenly. And a few minutes later the little men on wheels were pushing Bill Cameron back into the room with his companions.

"What's the idea?" he complained loudly.

"Bill," Roderick said to him quietly, "there's some reason why we can't use the radio. Just be patient."

"I don't like it, Clyde. Don't let these guys pull the wool over our eyes." Then he saw the woman, and his face took on a look of surprise. "Who is she?"

For the first time the woman introduced herself. "My name is Dakylla. I run the show."

That expression transferred itself from Bill's mind to hers, Clyde Roderick realized with a shiver. No thought is private from these people.

"Yes, captain, you are right," Dakylla answered his unspoken words. "Perhaps Dr. Villers would like to accompany us on our tour."

The scientist assented eagerly and they stepped from the room containing the disgruntled Bill Cameron and his companions into a strange and fantastic world, the world of the City of Liwlya.

LIWLYA was situated on a Martian plateau and it was an entirely self-contained unit. The atmosphere of Mars itself has no oxygen, only carbon dioxide, nitrogen, and argon. And the average temperature of the planet is about 70 degrees below zero. Lichens and seedless plants can exist in this kind of climate, but it would be impossible for human beings. And Dakylla seemed to be almost the same type of being as the earth men.

"At one time there was sufficient oxygen on Mars to sustain human life," she told Roderick and Villers. "At that time, too, it was warmer. But gradually the planet began to cool and the oxygen disappeared. So my ancestors built the city of Liwlya, completely enclosed in heavy transparent plastic."

The girl led them along corridors and streets along which were small dwellings. Each dwelling had a plastic top and over the whole city was a large plastic dome. Light from the sun was filtered through this and brightened the city, but the two men noticed that there were lamps set all along the way, funny large globes, apparently to be

used at night.

"We manufacture our own oxygen and our own heat within the city, and that is how we have managed to survive."

Clyde noted that she always spoke of we, but aside from the mechanical men, he had seen no other human beings.

"There aren't many of us left," Dakylla said, "only about 500. The others are busy with their research now. You will see them later. All the functions of the city and the farm lands are run by the dekros, the men on wheels. We Martians spend our time figuring out new methods of protecting ourselves from the atmosphere and making other developments to increase the enjoyment of our lives."

"But where do you get your power?" Dr. Villers asked eagerly. He was an engineer and physicist and stared in awe as Dakylla pointed the various heat and oxygen plants out to him.

"From the sun, of course. Its rays are intensified by the plastic dome."

"I don't understand," Villers replied, "you're one and half times the distance from the sun that Earth is, and we have never been able to harness the sun's rays to such an extent."

"Our scientists are far more advanced than those on the Green Planet, Doctor. We have many things that will startle and amaze you. The plastic dome, for instance. If a solid object, such as your ship, goes through the dome, the plastic reknits itself immediately. It is living organism. However, we have not yet perfected its resistance to extreme heat and electronic rays. That is why your radio beam would be fatal. It would melt the plastic and our entire city would perish. And the fire from the engines of your ship would have the same effect. That is why we were forced to put your motors out of commission before you landed."

"You did that?" Roderick asked in surprise. "I thought it was just mechanical failure."

"No, the man in the tower warned us. We knew many weeks ago that your ship was headed this way. He warned us and sent out the counter-electronic beam to deaden your engines."

"The man in the tower?" Dr. Villers repeated.

"We have a lookout on top of the dome. He wears a special suit that manufactures oxygen and heat, a miniature of the plastic dome itself. And he has the most powerful electronic gun ever created. That is our only weapon and our defense against intruders."

"But," said Clyde with a sinking feeling in the pit of his stomach, "if the heat of our motors would destroy

your city, then we can never get our rocket ship in the air again." He was sorry he had spoken this thought aloud, but he knew that even if he hadn't, Dakylla would have known what was in his mind.

"Precisely, captain. You can never leave Liwlya."

Before the earthmen could digest the full meaning of this remark, there was a sudden hubbub in the street. Golden skinned people, dressed in filmy cloth like Dakylla, flooded out of laboratories and schools in a hum of strange voices. There were men, women, and children of all sizes. Even the tallest was no more than five and a half feet. And for the first time men from another planet heard the strange, fluent syllables of the Martians' own language.

Soon the dekros mingled among the Martians, carrying trays of the exotic food and clothing. The busy people gave the visitors casual glances, but seeing that Dakylla had them in hand, paid no further attention. Then Roderick saw them move out of the way as a well-built young man came down the street.

He, unlike most of the others, had black eyes, which seemed, to Captain Roderick, to penetrate deep into his mind. He walked swiftly and with purpose. He came up to Dakylla and spoke to her in low tones.

"This is Hamayit," she said to Villers and Roderick. "He is soon to be my partner in the ruling of Liwlya."

The captain felt a wave of hostility flowing out from the young man. "How do you do," Hamayit said coldly and precisely. He seemed to resent the hospitality which they had been shown. This was obvious in every line of his handsome golden face.

But apparently Dakylla was annoyed with her fiance's lack of graciousness. She spoke a few sharp words to him and he went off without a backward glance.

"I don't think he likes us," Dr. Villers commented.

"Hamayit is suspicious," Dakylla answered. "He does not trust strangers. And I think he is a trifle jealous."

"Where is our ship?" Captain Roderick asked.

"It is safe," the girl answered non-committally. "Now you must return to your quarters."

Back among his men, Captain Roderick told them of the marvels he had seen. They were impressed, but Cameron was still sullen over not being allowed to use his radio.

"When are we going to get out of here, Clyde?" he asked, and the others echoed him.

"Well, men, I don't exactly know.

That will take a little time and maneuvering. We don't want to ruin this whole city. The heat from our engine exhaust would do just that."

They asked him what he meant and he explained what Dakylla had said. As they talked, he once again had the feeling of hostile eyes watching him, unfriendly black eyes.

The men protested vigorously at the thought of staying in Liwlya. They had friends and family back on Earth. They wanted to return. Most of them were bold and daring, but only the scientific men were really interested in the kind of life the Martians had created.

"I'll get to that radio," muttered Cameron to himself. "Just wait and see."

A moment later a swarm of the dekros wheeled in and surrounded Bill Cameron. He tried to fight them off and several companions came to his aid. Roderick tried to stop them, unsuccessfully.

Suddenly Hamayit was at the door, a strange oblong piece of metal in his hand.

"This is an electronic ray gun," he said sharply in a loud voice. "Anyone who moves will be burned to a cinder with it."

"Won't that destroy your dome?" Roderick asked quickly.

"Not if I aim at the stone walls," Hamayit said to him. "The plastic is above that. Now Sgt. Cameron had better come with me."

Bill Cameron shuffled out of the group, stepping over several parts of a dekro which had been destroyed in the fight. No one made a move to stop him.

Clyde Roderick sent a mental message to Dakylla and waited hopefully for her to appear. He trusted the beautiful young woman and liked her. But Hamayit . . .

"You wanted to see me, captain?" She walked delicately into the room, and he was struck again by her charm and grace.

"Where is Bill Cameron being taken?" he asked.

"You must not trouble yourself," she smiled. "If your impulsive friend behaves himself, he will not be harmed."

"I don't trust Hamayit."

"I am the ruler here. Hamayit would not dare to go against my wishes."

"Yes, but . . ."

"I know what is in your friend's mind, captain," she interrupted. "You do not. Sgt. Cameron is planning to get to the rocket ship and radio home and then start up the motors so that all of you can escape. He does not realize that there would be no opportunity for you and your men to get

to the ship once the dome is broken. You would die with us, and the lack of oxygen in the air would cause our city to crumble, all except the stone walls of this building."

"Why would the buildings be destroyed, too?" Dr. Villers asked.

"Because they are made of living matter that breathes oxygen just as we do. It is a secret we have discovered through hundreds of years of research. Even the material you slept on last night is breathing."

A gasp of amazement went through the room, and some of the men gingerly got up from their comfortable couches and stared at them in fascination.

"What about you, Dakylla?" Captain Roderick questioned. "How did you happen to become the ruler of Liwlya?"

"My father ruled Liwlya for many years. I was his only child. He died when the sun last came closest to the city. It has been arranged that the next time that occurs, I shall marry Hamayit and we shall rule together."

SUDDENLY there was a commotion outside the door. Hamayit rushed in, his black eyes staring wildly out of his face, his electronic gun clutched in his hand.

"He has escaped, this Sgt. Cameron," he cried excitedly. "He got away in the streets where I could not shoot. He has gone to find the rocket ship."

The perturbed young Martian ran out, and Captain Roderick, grabbing Dakylla by the hand, ran after him. His companions, realizing at last the seriousness of the situation and the danger Cameron was placing them all in, rushed into the street along with them.

Dakylla stopped a moment, concentrated, then said: "He has not yet reached the ship. There is still time."

"Lead the way," Roderick shouted.

Swiftly the girl led him down the streets of the city toward a large open field. There, in the distance, he could see his gleaming ship. A small figure was dashing toward it.

"Is there anything you can do?" he asked Dakylla frantically.

"No, we have no defense against this," she panted as they raced onward.

The figure reached the ship and started to climb the ladder. Several of the dekros attempted to grab him and pull him down.

"Cameron," Roderick yelled with his last ounce of breath. "Don't, Cameron. Come back. We'll all be killed."

Bill Cameron stopped at the door of the rocket ship and turned around. "It's okay, Clyde," he shouted back. "I'll get us out of this."

"The fool," the captain muttered.

Suddenly there was an ominous hum from the rocket ship as the radio was turned on. Clyde Roderick could almost see the invisible radio waves that shot out toward the glass dome. He kept on running and stumbling, stumbling and running, Dakylla being dragged along at his side.

"It is too late," she moaned, and looking up, he saw a crack in the dome, saw the opening widen and begin to melt.

"Inside the ship," Roderick gasped. "If we can just get inside the ship, we'll be safe." He pulled the girl forward, tried to keep her from looking back at the lovely city that was her home.

THE rift in the dome was spreading rapidly, the melting process gaining momentum as it went. Then another frightening sound came to their ears. Bill Cameron had started up the engines of the rocket ship and the flaming exhaust from the jet motors was making further holes in the plastic dome.

A cold blast of air came down from above and swept them backwards. They were only about twenty yards from the ship, and they could hear the labored breathing of the other earth men behind them. In addition, Martians had rushed out of their places of work and were milling around and crying out in their frantic terror.

The wind was bitterly cold and penetrating, and the lack of oxygen caused the breath to strangle in their throats. It was impossible to run anymore. The dead bodies of Martians lay around them in a matter of seconds.

Sgt. Bill Cameron, inside the rocket ship, exultantly speeded up the engines. Why didn't the captain come and help him, he wondered. "I can't run this thing myself," he muttered in annoyance. He was also upset over the fact that he had not been able to contact Earth.

Getting to his feet, Cameron went to the door of the rocket ship and looked out. In the second before the atmosphere sucked his body out of the cabin and dashed it to the ground, he saw the dead forms of his companions lying lifelessly a few yards away.

Clyde Roderick made one last desperate attempt to reach the warm, pressurized interior of the rocket plane. He got to his knees. Dakylla's hand slipped from his and she fell back on the ground, her lovely face blue and her green eyes staring wide and terrified in death. With a hoarse cry, he stumbled and fell beside her. The cold wind of Mars blew down over the stiffening bodies, and nothing but a few stone walls remained of the City of Liwlya.

The NUDE IN THE MICROSCOPE



A YOUNG PROFESSOR MAKES A STARTLING DISCOVERY ABOUT A MICROSCOPE.

—By *GEORGE MOFFAT*

CARL Thorton was young, not yet quite out of his twenties. He didn't look or act like a professor, but he was one at the University of Dale, a fabulously wealthy institution in Texas where spouting oil wells poured out unlimited cash into the endowment fund.

Young Professor Carl Thorton sat in front of what he called his "Butcher's Refrigerator." It was a box-like affair and did look something like a refrigerator, but there were no ice cubes in it and no food of any kind. It was a super revolutionary microscope, the result of three years' work on his part, aided by unlimited funds from the University.

It possessed a potential electronic power of over a million, fifteen times greater than the most powerful known electronic microscope and three hundred times greater than any using light.

It had cased-in projections and tubes in the front and two small screens in the style of television or radar screens.

The 150,000 volts that went through it tore away the satellite electron from the proton of the hydrogen and a gun directed the proton in a regular flow into the tube of the microscope where it was concentrated by three electrostatic lenses on the object to be examined. Enlargements were projected on a television-like screen.

Construction of the giant microscope had taken three years, and through it Professor Thorton hoped to see previously invisible viruses, opening up new fields of medical knowledge. It was also hoped that it would bring out invisible molecules and heavy atoms, such as those in uranium.

He sat in front of it to make his first test. Behind him were three years of painstaking work, of fear that what he dreamed would never come up to expectation, and of impatience to try it out. On the slide was only a bit of common earth, taken from a depth of three thousand feet, a part of the slimy mud pumped out of an oil well.

The powerful dynamos began sending 150,000 volts to tear away the satellite electron. The hum had a definite vibration, so controlled that it was something Thorton sensed rather than felt. The gun directed the proton of hydrogen into the tube. A mass of grayish black appeared on the screen. It moved in a mass of darkening color, the molecules whirling around, all

seemed to go toward the center.

THEN slowly the mass stopped moving and outlines of what looked like huge and misshapen rocks appeared. These stood still for a moment, as if suspended in air. The hum increased. The molecules seemed to fuse into another mass, this time with glittering blue and red colors at the edges and a deep green in the center.

The picture grew stronger and the colors changed until there was movement in it, life that seemed to be hurrying back and forth. And then came the outline, dimly at first, of what looked like a woman.

Thorton stared at the picture, his brain whirling with excitement. The woman became more real and around her objects moved, forming into figures of small men. The woman was tall and her flesh and her face became vivid and clear.

Her hair was long and flowing, a golden color, her body trim, face long and with classic features, neck swan-like, and her breasts large and well-formed. Her waist and her legs tapered off in a perfect line, graceful and lithe.

At first Thorton couldn't realize what he was seeing. The woman was completely nude and slowly her hand rose, palm up, as if she were motioning to Thorton. Small and strange-looking animals and small men were around her. They walked with a jumpy step, always keeping close, as if they were her protectors.

There were trees and rocks and land, rugged and hilly, and the woman and the little men were in a valley. Overhead a huge bird, with wings like an eagle, but five times the size of an eagle, was flapping wildly.

Thorton rubbed his sleeve across his face to make sure he wasn't dreaming. He felt the vibrant hum of the powerful dynamos and the whirling sound of the gun as it sent the proton in a regular flow into the tube of the microscope.

The box-like structure of his "Butcher's Refrigerator," was there in front of him. The white walls of the lab room loomed to the right and left and overhead was the white ceiling.

No, he wasn't dreaming. It was reality, strange, unbelievable, fantastic. There had only been a splotch of slimy water and mud, taken from the bowels of the earth, three thousand feet below the surface.

And now . . .

THE woman was waving at him and from somewhere behind her had come a tall, handsome man, who was also naked. Thorton didn't notice this companion at first. Only the strange, intoxicating beauty, the exquisite and delicate grace of the woman's movements.

Then the man at her side was talking to her angrily, as if jealous of her actions. She was laughing and throwing her head back merrily. The man reached for her, but as he did, the little guards around him grabbed his arms and legs and pulled him away. It made Thorton think of Gulliver's Travels, the midgets swarming all over a giant.

Thorton studied the typography of the land around the woman, her jealous lover, and the little men. They all stood in a small valley and the hill behind them looked like rock. The trees were stunted and had no leaves. Their branches rose upward, like the arms and hands of ghosts.

Studying the hills closely, Thorton saw that beyond them was a vast area of water, held back from that little valley by dams and the hills. These dams sometimes seemed to move, as if suddenly they would break. A feeling of nervousness and fear came over Thorton for the beautiful woman, a feeling he had difficulty controlling. He wanted to scream at her to be careful. But no words came from his mouth and as the fear increased, he turned off the switches and the great microscope was still and the picture was gone.

It all seemed like a weird and unbelievable nightmare to him. He wanted to think, to assure himself again that all this was real and that he had seen it. He had tried his first experiment with the super microscope in the hope that he might view molecules that had never before been seen by man.

Instead he had seen a form of life that came from the earth, a strange manifestation of a belief held in ancient times by scientists — that life existed in the bowels of the earth, just as on the surface.

His head swimming from the excitement, he went to the cafeteria to have a cup of coffee. He debated whether to announce his amazing discovery at that moment. Old Professor Henry Minton, who had been his guiding star in his advancement in physics, would be as excited as a little boy.

Thorton sipped his coffee slowly. Then gulping down the last few swallows, he rushed back to the microscope, seated himself before the screen, turned on the voltage, and watched the same process take place that had occurred when he first looked at the splotch of slimy mud.

First there was the moving mass of dark objects with the molecules, then the picture grew stronger with the changing colors and the first indication of life. The outline of the beautiful nude woman slowly began to take shape. Only this time she seemed to form faster and with clearer lines.

STARING at the exquisite beauty of her naked body, Thorton felt an overwhelming thrill of excitement. She seemed to move as if floating in the air, and as she floated backward and then forward, the small men moved with her. The tall giant had disappeared.

Then she threw up her hands, and her mouth showed she was laughing and she backed away and disappeared behind a small hill, only to reappear again, this time carrying a long flowing scarf that she wrapped around her body, unwrapping it in a

whirling, dancing movement. She started to dance and all the little men around her danced in unison, as if they were all having a happy time.

Again the tall, powerfully-built man with the brutally handsome face was at her side. He was talking angrily and she was floating away from him, just out of his reach. Thorton could almost hear her taunting laughter. As the man moved toward her, the little men were all around him, waiting to grab him as they had done before.

Thorton had no idea how long he had stared at this strange scene. Then he ran out of the room, headed across the hall for Professor Minton's office. The professor had gone home, as it was now after six in the evening. Thorton got in his car and drove to the professor's home.

The old man was sitting down to his dinner when Thorton burst into the dining room. "Professor," he cried, "come at once . . . the new microscope . . . I have just seen life in it, life from some mud taken from an oil well three thousand feet down. A beautiful woman and trees and a valley — life . . . it exists down there . . . I have seen it . . ."

"Sit down and have some dinner,"

Professor Minton said. "You mustn't let yourself get too excited. Your mind doesn't work well if you do."

"But it's there . . . I saw it," Thorton exclaimed. "I tell you I saw it . . ."

"Take it easy," Professor Minton answered with a laugh. "Have some food and calm down and tell me what you are talking about."

THORTON sat down at the dinner table. He didn't eat anything, but he sipped a cup of hot coffee as he gave Professor Minton the details of what the screen showed from the drop of mud. Professor Minton listened, eating slowly, breaking in now and then to ask Thorton a question.

When Thorton had finished, Professor Minton continued to eat without a word. Then suddenly he laid down his knife and fork, drank deeply of a glass of water. "What you have seen," he said, "is a miracle that is based on reality. The protoplasm under the surface of the earth can be the same as we know, and it has long been the belief of certain scientists, ancient and modern, that life exists there. Your microscope may have picked up this life."



THE PROFESSOR GASPED IN SURPRISE WHEN HE SAW THE MUD

"It was there," Thorton cried. "I tell you it is the most amazing thing I ever saw. I'll show it to you."

"You say you put some mud on the slide?"

"Yes, just a small amount. I was going to try out the microscope."

Professor Minton drank his coffee, and when he had finished, he got up, said: "Let's see this protoplasm you say you saw in that mud."

IT was around seven-thirty when Thorton and Professor Minton arrived at the lab room. Thorton was trembling with excitement. Professor Minton watched him with a smile on his lips.

"Nothing as exciting as a new discovery, is there, Thorton?" he asked.

"Nothing — absolutely nothing," Thorton replied, adjusting the switches on the microscope.

"And nothing can be as cruelly disappointing," Professor Minton added.

"What do you mean?" Thorton demanded.

"We'll see in a moment," Professor Minton answered.

The hum of the generators started and the muffled roar of the gun as it directed the proton into the tube of the microscope to be concentrated by the three electrostatic lenses.

Again the differing masses appeared on the screen and after this the first outlines of life. The colors changed again and then the hills and the stunted trees and the beautiful

nude woman were visible. The little men were gone, but the tall man was there, hovering near the woman, watching her every move.

Professor Minton gave an exclamation of amazement. Thorton's eyes were glued on the woman. The water beyond the low hills seemed to be rising slowly and the dams were heaving back and forth.

"Look out," Professor Minton in his excitement cried, "It's going to happen. Turn off the microscope . . . turn it off quickly . . ."

Thorton didn't move. His eyes were on the tall man. He was reaching for the woman, grabbing her by the shoulders in his furious jealousy. Then it came, a raging, inexorable torrent of water, breaking the dams as if they were sheets of paper. The waters swallowed up the woman and her companion.

FOR a moment the woman seemed to be floating easily on the surface of the whirling current. Then only the water appeared on the screen. The trees, the hills, the woman, and her companion were gone.

Thorton turned off the switches. "What . . . what . . . what happened?" he gasped.

"A very simple thing," Professor Minton said. "Examine the material on the slide."

Taking out the slide, Thorton looked at it. The small piece of mud he had placed there was now only a

rivulet of water.

"The electronic current tearing away the proton from hydrogen melted the mud and made it only water," Professor Minton explained. "I was afraid this would happen. When it did, there was only water and no mud and the protoplasm under the earth has to exist in air and molecules just as we do. The water washed your picture away."

"But I have more mud," Thorton exclaimed. "We can try it again."

Professor Minton shook his head. "You may have to try it for many, many years," he said. "Protoplasm isn't in every piece of mud. You made a startling and valuable discovery when you picked that one hunk of mud . . ."

"It has to be there again," Thorton cried. "That woman . . . I can't lose her."

He took more mud, placed it on the slide. He turned on the super microscope again. The medley of colors danced on the screen and unknown molecules whirled around. But no woman or any form of life came out of the moving masses.

Thorton got up and walked slowly out of the room. He had lost all interest in the super microscope. Nothing interested him now but the haunting memory of the gorgeous creature he had seen on the screen. And with this, the sickening realization that he would never see her again.

—THE END—

STF Book Review

By Litzka Raymond

ANOTHER anthology "BEYOND THE END OF TIME" appears as a 35c Permabook and regales the reader with 19 stories by writers whose names also appear in the more pretentious volumes. Here, the editor, Frederick Pohl, briefly and efficiently begs the question of "What Is Science Fiction?" and suggests that the reader find 19 answers by reading the 19 stories in the book.

Certainly such answers as peek into the past and the hunting down of our descendants in the ruins of present-day cities, afford variety as well as creatures a mere 200 light years distant, so space, like time, has found its share in this representative collection. As "A glimpse of tomorrow — today" the book fulfills its claim.

SOME views of tomorrow, today, also can be gained from "ROCKETS, JETS, GUIDED MISSILES AND SPACE SHIPS" by Jack Coggins and

Fletcher Pratt, with a foreword by Willy Ley. Published by Random House at 95c this is a much simpler book than its comprehensive title would suggest.

Filled with colored plates and other large illustrations, the book graphically covers the history of rockets and shows their future potential. Definitely it has a juvenile appeal, but this in no way lessens its interest to the adult reader. A subject that so stirs the imagination by building from fact, requires a pictorial treatment.

WHATEVER the extremes to which STF writers have gone to claim new worlds and frolic among the stars, the facts described in ASTRONOMY, by William Lee Kennon, Ph.D. can match much that is found in the field of fantasy.

Published as a college text-book by Ginn and Company, at \$6.50, this volume is obviously not intended for

the casual reader. But within its more than 700 pages are facts and theories that provoke imaginary flights to outer space. The author delves into the history of astronomy, describes lunar landscapes and gives a graphic idea as to the size of the asteroid Hermes by a picture showing it comfortably bolstered on Manhattan Island.

Only from such a work is it possible to comprehend the great strides made in astronomy during recent years and at the same time recognize the remarkable foundations laid down by the observers of centuries ago. Quoting from Dr. Kennon: "Much as one squeezes the juice from an orange, gravitation squeezes the radiation from a star and launches this radiation on its swift journey to the remote recesses of space."

That's bringing the outer reaches right home and many other fascinating comparisons will be found amid the more technical passages of this volume. Again, we must emphasize that the book is intended for the advanced student; but it's the sort that should give astronomy a high place in the curriculum.

The BLACK PLANET

By G. A. LACKSEY

THE END OF A WORLD, THE PRIDE OF A UNIVERSE, WAS AT STAKE WHILE SCIENTISTS WHO COULD HAVE SAVED IT DAWDLED OVER A GAME OF POOL

JERRY'S Pool and Billiard Hall was a rather unlikely place for an intellectual bull-session, but one was being held there. Besides being the nation's foremost astrophysicist, Doctor Lee Dawson was a pool shark from away back. Chris Christopher of Rocketways Incorporated, had learned of Dawson's penchant and had passed the word along to Bill Farnum, chief chemist for United Plastics.

All that month, Chris and Bill had been practicing up on their pool. Tonight, they had waylaid Doctor Dawson into what amounted to a trap. They'd had him for dinner at a quaint little Italian restaurant called La Bella Napoli, not because they relished the food, although it was good. It happened that La Bella Napoli was conveniently around the corner from Jerry's Pool and Billiard Hall. There, the conspirators had reserved a table for the entire evening, hoping to take advantage of Dawson's only known weakness.

It had worked. The astrophysicist's eye had gleamed at the Pool Room sign above Jerry's deadfall. So down the steps they had come and they were now distributed around a pool table in the corner, under a row of shaded lamps that hadn't been used for weeks. Doctor Dawson won the break and pocketed the five-ball with it. He sank three more, then missed, and relaxed while Chris Christopher stalked around the table, chalking his cue and trying to pick a shot. Actually, Chris was giving a cue to Bill Farnum, a different kind of cue than a billiard cue.

"Poor Chris," side-toned Bill. "He never can make up his mind what to do next. Rocket-propulsion, you know."

Doctor Dawson blinked as though he didn't know. Anything he didn't know would have to be very remarkable or

very, very obscure. For Lee Dawson, the thin-lipped, thin-haired college professor not yet in his forties, was regarded as one of the greatest interpreters of Einsteinian principles.

"And just what," queried Dawson, "does rocket-propulsion have to do with lack of self-determination?"

"If Chris can't figure out his rockets," replied Bill, "he naturally can't figure out himself. As you know, his company is already planning rockets for space travel. That's why they are developing plastic coatings to stand atmospheric friction at hitherto unattained speeds."

Dawson nodded, then asked impatiently:

"But what has this to do with rockets?"

"That's where you come in," replied Bill, his round face spreading in a jovial smile. He paused while Chris side-pocketed the twelve-ball with a cushion shot. Then: "Once a rocket-ship clears earth's atmosphere, it's in space. And space is your baby Doctor."

Chris fluked a try for the fifteen-ball. It was Bill's shot and he was sighting for it, as Dawson echoed: "My baby?"

"Of course." Bill played a carom off the twelve-ball and sank the fifteen. "Your theory on the curvature of space has him all twisted like a pretzel. But you'd better let Chris express his problem, personally."

WITH the ice thus broken, Chris did express it.

"As I get it, Doctor Dawson," said Chris, "you class all the motion of celestial bodies as their natural behavior, which thereby does away with gravitation altogether."

"Not precisely," returned Dawson, with a dry smile. "Something does

keep us on earth, though it is not exactly a form of terrestrial glue, as the old theory of gravitation would imply."

"I'm quite aware we are here," agreed Chris, grimly, "and so are my rockets. But getting them off the earth isn't the only problem. What happens when they're loose in space?"

Bill scratched, put the cue-ball back on the table and spotted the fifteen-ball, gesturing that it was Dawson's turn.

"Once free in space," declared Dawson, "your ships will respond to a radial acceleration. Plotting their courses will become a specialized science, determined by arcs, not straight lines. One thing need not worry you; that will be the matter of rocket control. The very nature of space itself will provide solutions.

"The old saying 'Nature abhors a vacuum' applies to space," Dawson continued. "You will find space currents and encounter masses of gas and even space-gaps. Picture a child who has tested toy boats in a bath-tub suddenly becoming the captain of a liner in mid-ocean. He would find himself confronted by problems in navigation which he never dreamed existed. Your experience in astrogation will be the same, Mr. Christopher, if you ever grow up to captain a space-ship.

"Consider space a form of matter, gentlemen" — Dawson kept punctuating his statement with the click of pool balls — "and you will agree that our universe must be regarded as a vast sphere, or its equivalent, containing all matter, all energy, and all time from its beginning to its end. Outside that quasi-sphere is nothing."

Dawson racked up his run and gestured that it was Chris's turn. The rocket expert shook his head as though detaching himself from a bad dream.

"Nothing?" queried Chris. "Not even space?"

"Not even space," replied Dawson. "I have already included space within the cosmos that I just defined."

"No wonder I'm twisted like a pretzel, as Bill says!"

"Space may be the same, Mr. Christopher." Dawson's lips twitched happily, as though he hoped it would some day turn out to be that way. "Yes, your interplanetary ships, if you ever build them, may find themselves running on invisible space-tracks with unseen switches and possibly some dead-ends."

CHRIS scratched with the one-ball and Bill took over. Chris was shaking his head as though watching rockets go around in circles.

"But this imaginary sphere, Doctor Dawson —"

"A correction, Mr. Christopher. Hypothetical, but not necessarily imaginary!"

"This hypothetical sphere, then. Is everything within it?"

"Everything that we understand," Dawson rejoined. "but there still could be other such spheres of existence."

"Apart from ours?"

"Possibly. Or our sphere could be contained within a larger one, and so on and on and on. Conversely, our vast sphere could contain a smaller cosmos, or any number of such. Each would be bounded by its own limitations. One factor, however, is essential to any cosmos."

"And that factor?"

"The curve." Dawson raised one hand as though it contained an imaginary globe. "Even our concept of chaos preconceives rotation. From whirling matter are shaped suns, their planets and their satellites. Any universe that deviates from that pattern is doomed. There is one thing that Nature abhors more than a vacuum. That thing is a straight line!"

Dawson scarcely paused as he sighted along his cue. He was the philosopher as much as the physicist, when he added in a tone of prophecy:

"Picture an ideal solar system, with multiple suns fixed in its heavens. Beneath those suns, consider perfect planets, all of a balance, lacking any satellites which in themselves are imperfections resulting from some disturbance. Poise that system in any form of space you desire: gaseous, liquid, even solid. Yes" — Dawson nodded, quite convinced of his statement — "our own space is unquestionably gaseous, so there could be solid space as well. However, poise those planets as I said. And then —"

The famous astrophysicist paused in his game, came erect and wagged his head to emphasize his statement.

"Then, gentlemen, do anything," declared Dawson, "Anything but one thing. Stop those planets in their courses. Rotate them anew, in reverse, if you wish. Swing their orbits, make them into pretzel twists, to use that term again. But do not deviate them from the curved and broad to the

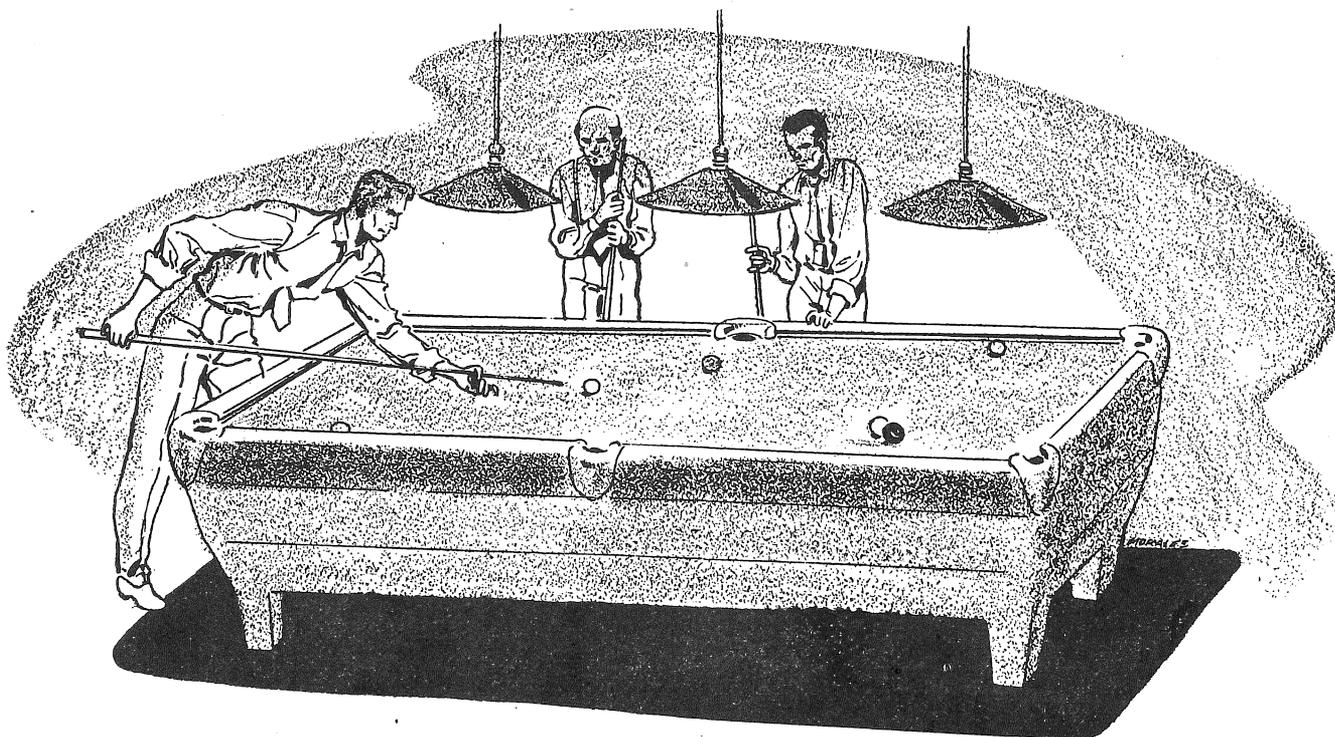
straight and narrow. A straight line is fatal to the existence of any universe.

"Forced to such paths, the planets might survive crashes with one another, but they would find gaps in their own bounding sphere and disappear into the void. Any that returned would do so only temporarily. Even now" — Dawson's eyes took on a distant stare — "I can picture a scene on a planet in such a system, with the wisest scientist in that particular world predicting total destruction from that most horrible, abominable and most tragic of all Nature's errors, the straight line!"

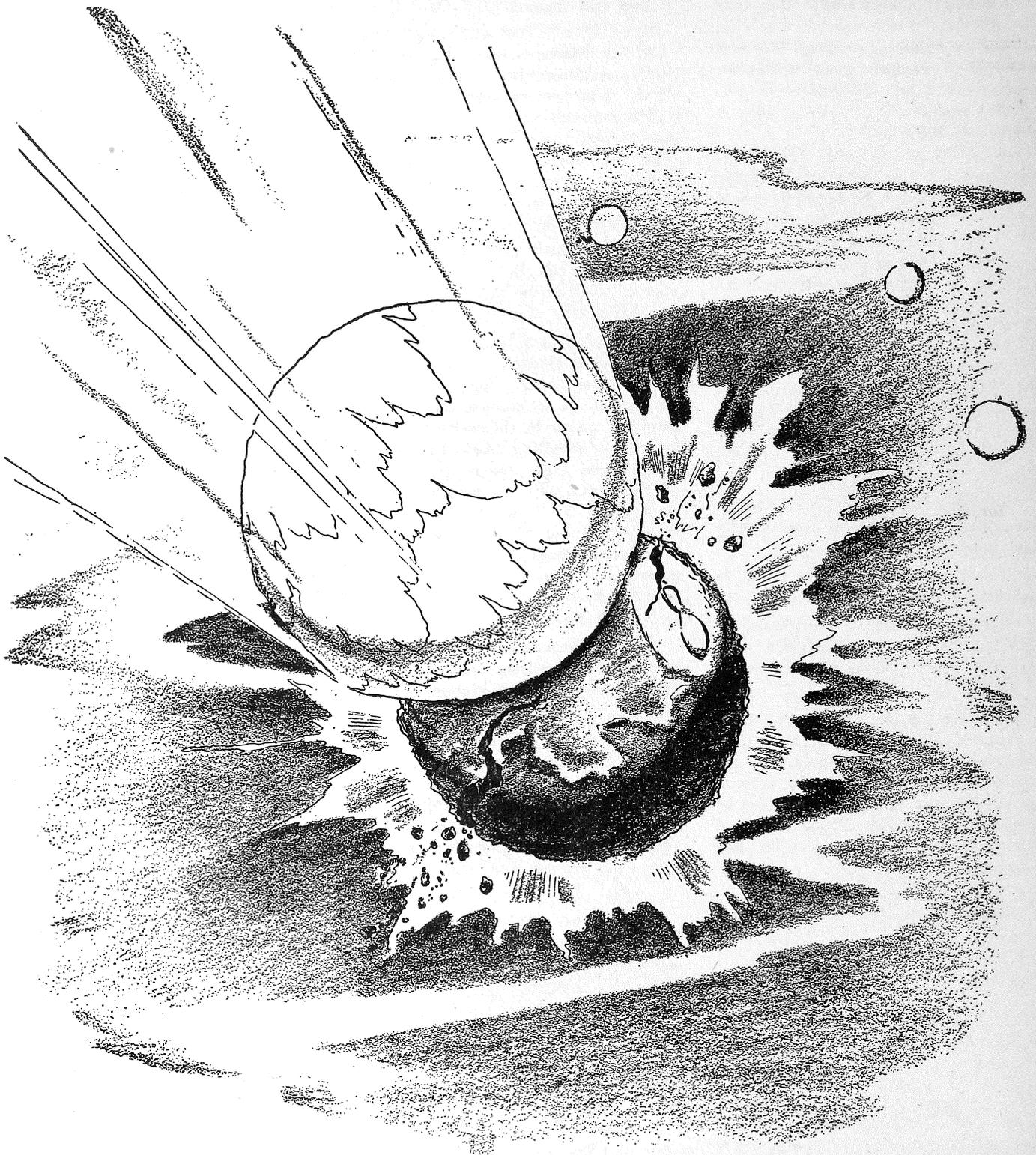
THERE was a ring to Dawson's tone that gave an actuality to his statement as though his eyes had pierced the very void he mentioned. His was a rapture that Galileo must have known when viewing the satellites of Jupiter through his early telescope or the amazement felt by Leeuwenhoek at his first sight of the creatures magnified by his primitive microscope. For somewhere, somehow, Lee Dawson, rated perhaps as our century's greatest mind, had caught a mental flash that was not merely out of this world, but out of this universe!

"The most tragic of all Nature's errors, the straight line!"

Dawson repeated those words, knowing they were an echo, but from where? Someone else had phrased them, of that he was certain, but they did not come from the past. They were words of this very moment. The fact



OVER THE POOL TABLE THEY DISCUSSED SPACE TRAVEL



UNDER THE GLOW OF THE THREE GREEN SUNS, THE TWO PLANETS COLLIDED

rang home through Dawson's giant intellect, though he did not express it. Chris Christopher and Bill Farnum, as they watched Lee Dawson play his final shot in the pool game, were positive that some strange thought had been the inspiration for the quotation. A thought wave which had arrived on a curved beam, of course, not an abominable straight line.

As a matter for the record, which was never made, the quotation sprang

from the bearded lips of Sijor Majox, Chief Quillian of the Vaxpaba in Eonia, the capital city of Infinito, the Black Planet.

A Quillian, in earthly parlance, would amount to an astronomer, a Vaxpaba his observatory. But in Eonia, the office as well as the institution carried a much greater implication. The astronomers (which we may term the Quillians for convenience, as they are now all extinct and can not object) were the lawmakers, the philosophers,

the theologians, in fact practically the Board of Directors of the planet Infinito.

THIS was due to the fact that the Black Planet had sprung into existence almost as a fully developed world, as had all the other members of its system, at least according to tradition. As a comparatively small universe (though even the Quillians themselves did not realize its limitations) this collection of suns and planets was easily

studied and surveyed. So science had gained sway early in the history of Infinito. Sijor Majox was reminding his hearers of that fact as he addressed the Quillianaba or Board of Quillians.

"The most tragic of all Nature's errors," pronounced Sijor, "The straight line! We, the inhabitants of Infinito, are to suffer oblivion because of it, the way the other planets have!"

There was a stir through the Quillhalla or Great Hall of Quillians. Sijor could hear rumbles from the loud-speakers of Karth Midoq and Toth Tibor, the leaders of the two minority groups. Sijor spread his great arms for silence and his jet-black beard glistened against the silver sheen of his official robe. Sijor knew the tricks of oratory that would sway the crowd against Karth and Toth. He intended to use them, but only because at heart he was sincere. With the fate of a universe hanging by a whim, it was a time for sincerity.

"Tradition has it that our planets all were one," declared Sijor. "Whether a vast, single planet, as Karth Midoq and his Unicos claim or a cluster of worlds as pictured by Toth Tibor and his Separos, the ultimate result was the same. Some vast cataclysm shattered our system into various worlds of approximately the same size but varying greatly in appearance.

"There was a golden planet, undoubtedly composed of mineral rock; a blue planet, probably covered by shallow seas; a red planet, with great stretches of desert wastes. Other planets had broad equatorial belts of various colors and huge, snowy polar caps in contrast, showing distinct differences in the climates of those worlds. Of those, only our planet, Infinito, remains. The others have become legend."

KARTH Midoq was on his feet, waving a tight fist and shouting an interruption that turned his gaunt face livid.

"Not legend!" cried Karth. "History! We do not know how many worlds there were in all, because some exploded soon after the great cataclysm of creation —"

"An objection!" The booming tone came from Toth Tibor. "It was not an explosion that caused the original cataclysm, but a shock that resulted in a breaking up of worlds. Therefore, we can not agree that any worlds exploded later. Particularly" — Toth's reddish eyes, peering from a puffy face, glared angrily at Karth — "particularly because some of those vanished planets later reappeared."

"Ridiculous," sneered Karth. "They were new worlds —"

"From where?" interposed Toth. "The same old explosion?"

"Of course," claimed Karth. "They were gaseous nebulae that gradually took solid shape."

"They were lost planets," argued Karth, "temporarily hidden by some obstruction in space."

Sijor Majox called for silence, then smiled in his beard as he spread his great, robed arms. He had pitted Karth and Toth one against the other, letting them haggle over their same old theories. Now Sijor had regained his sway.

"Let the past be the past," declared Sijor, solemnly quoting from Traxol, the Great Bard of Infinito. "We are concerned with the present and its bearing on the future. Of all the worlds, only two remain: Our World, Infinito, the Black Planet." Sijor paused, while the thousand Quillians rose and bowed their allegiance at mention of their homeland. "And Devolo, the Destroyer of Our Universe, the Dread White Planet!"

THE Quillhalla seethed with the hissed hatred that the thousand Quillians held toward the White Planet. When the demonstration had subsided, Sijor Majox spoke calmly but tactfully.

"Let me assure you," Sijor avowed, "that I hold the White Planet in the same contempt as every member of this assembly. I might even say that I hold Devolo in the same terror, as well." There was an uneasy shift among the Quillians at Sijor's admission. Then: "But the fact remains that whenever the White Planet delivers destruction, its course is a straight line.

"If our planets followed orbits, as occasionally they appear to do because of their rotation, this menace would be ended. But no. Always, when rotation ceases, the snow-clad planet is the first to move again, colliding with other members of our system. This of course we know only from recorded observation through the ages. We have witnessed no crash of worlds in our time." A pause, then Sijor added drily, but grimly: "Perhaps because there are no worlds left but Infinito and Devolo, the Black Planet and the White."

A visible shudder swept the members of the Quillianaba, running like a silvery ripple, supplied by the shoulders beneath their robes. Then a venerable Quillian, Agwar the Advisor, rose from his chair beside Sijor Majox.

"Speaking of straight lines, Chief Quillian," said Agwar, "our planets, when in motion, often changed their courses, according to reliable calculations of former Quillians."

"I have studied those calculations," acknowledged Sijor, and there were frequent directional changes as you say. But they were always angles, from one straight line to another."

"But how could that be?"

"Through contact with some invisible obstruction in the green void which supports us in space."

There were murmurs of dissent among the Quillians and Agwar promptly voiced the argument that was in their minds.

"We are not certain that the void is solid," stated Agwar. "Some of our best observers claim that it is simply an illusion caused by the luminescence of the three green suns that give us light and heat."

"The three suns are yellow," asserted Sijor. "The green aurora which surrounds them may be a reflection of the void upon which we drift. But we were speaking of straight lines, Agwar. When the White Planet moves again, it will come straight for us simply because there are no other planets remaining to attract it."

There were shouts of "No, no, no," through the Quillhalla. Agwar quieted them, then turned to Sijor and reminded him calmly:

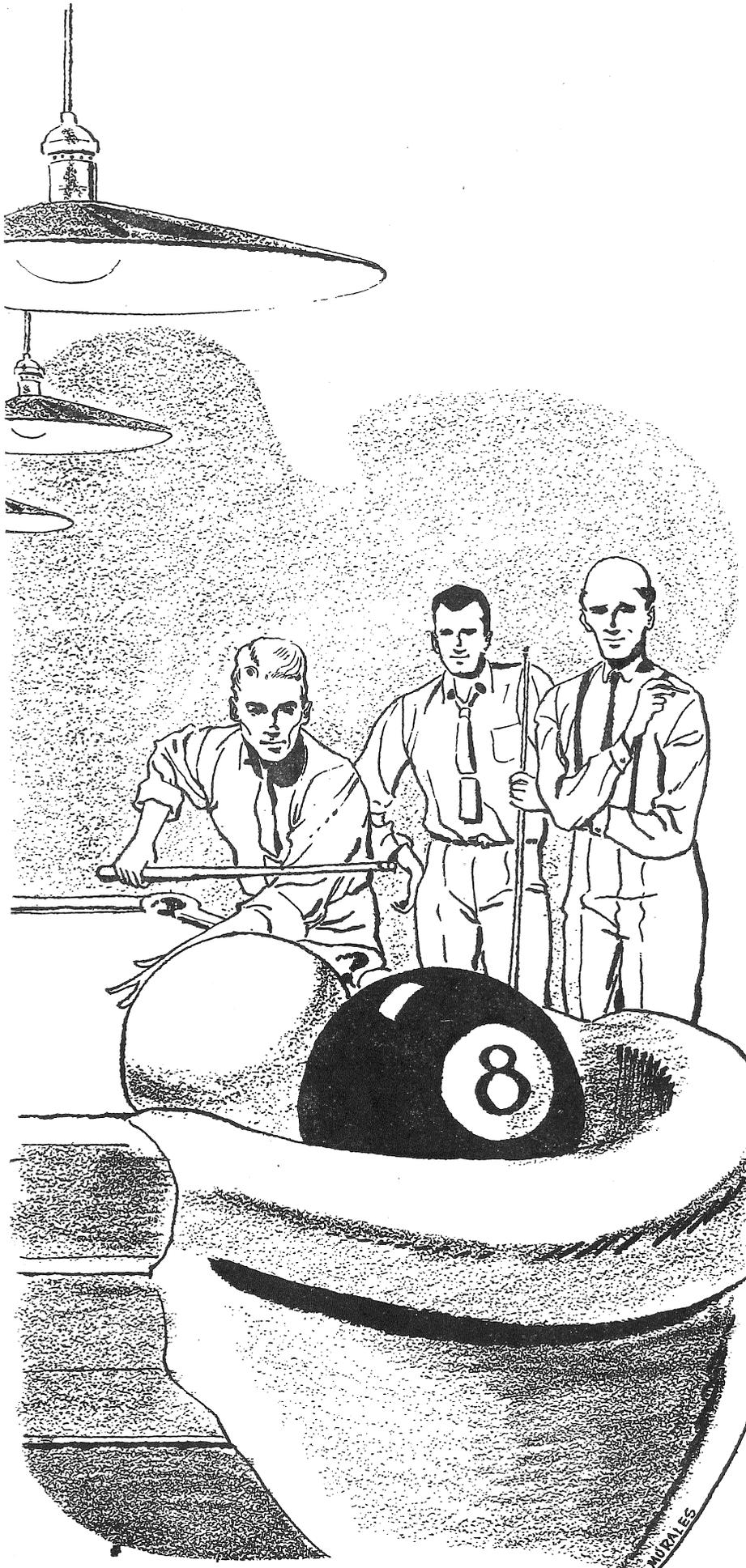
"Our planet has been in collisions before. Always, damage has been slight. Our low-lying hills have served as buffers, which is why our people have lived only in valleys, since time immemorial. So why should we fear another crash?"

"Because it will mean oblivion," assured Sijor. "Time after time, in the course of our history, the White Planet has crashed another member of our system and sent it racing to some yawning gap in the solid void around us. I know, I know" — again Sijor waved his arms for silence — "you will dispute my contention that space has limits, but my study of our records, plus my own observation, convince me that there are boundaries to our universe."

"Only if we can solve the riddle of radial acceleration, can we save our world and the universe which is now represented by two planets, one black, the other white. If Infinito and Devolo could only acquire orbits, perhaps revolving about each other! Then neither would ever reach the barriers of outer space, as a dozen — perhaps more — of our fellow-planets have done. They are gone and it is now our turn to vanish with them!"

SIJOR Majox sat down and folded his arms. He disregarded the tumult that filled the Quillhalla. To a man, the Quillians were storming their disapproval of Sijor's speech. Even the factions of Karth and Toth had joined against the Chief Quillian. Only one man could calm that human tempest. Old Agwar arose and as the roar subsided, the advisor spoke, a sad charity in his tone.

"As men of science," stated Agwar,



DAWSON POCKETED THE 8-BALL, ENDING THE POOL GAME

"we must still remember that there are things beyond us. Sijor has forgotten this, but we can forgive him. There is one reason why our planet, Infinito, will survive. I have seen that reason for myself and fellow-Quillians, so have most of you."

Solemn and subdued, the words "Right!" and "Hear, hear" came from the Quillhalla.

"We have flown in our dirigibles," continued Agwar, "above our great ebony forests, across the vast dark seas, over the jutting crags that glisten with mountains of jet and coal. We have reached the single polar cap of our glorious planet, and hovered there, looking down into that small circle of perpetual snow.

"In the center of that circle is a symbol in pure black graphite, dating back to the very dawn of our planet's creation. A symbol etched there, no one knows how, but certainly by no human hand. Time and again, our wondering eyes have studied that mark and identified it, the symbol of infinity!"

Agwar paused until a mighty roar of approval faded, then he added: "History tells us that no such mark was ever observed on the polar caps of other planets. The Black Planet alone was stamped with the token of Infinity. From it came our name 'Infinito' which states our destiny. We are to be the world without end."

The cheers for Agwar shook the hemispherical canopy that roofed the Quillhalla. They turned to jeers as Sijor Majox rose to take the floor. Nothing now could save the Chief Quillian. His term of office was automatically ended by this expression of unanimous contempt. His life would be in jeopardy unless he stepped down from the platform as expression of voluntary resignation.

Instead, Sijor Majox spread his arms in a fierce, commanding gesture, his last official act. The great roofed canopy spread open. Shouts froze on horror-struck lips as Sijor pointed upward. The green glow of the three suns was eclipsed by a great mass of whiteness, an orb that expanded with a speed that threatened soon to fill the sky. That glistening whiteness was turning gray as it caught their reflection from the Black Planet upon which it was descending at incredible speed.

The chill of that final twilight hushed all human voices until one, the voice of Sijor Majox, boomed out of the silence:

"The White Planet, Devolo, brings destruction. It will send us crashing to oblivion. This is the end of our world, Infinito. With our Black Planet, a universe perishes, because of the most

tragic of Nature's errors, a straight line!"

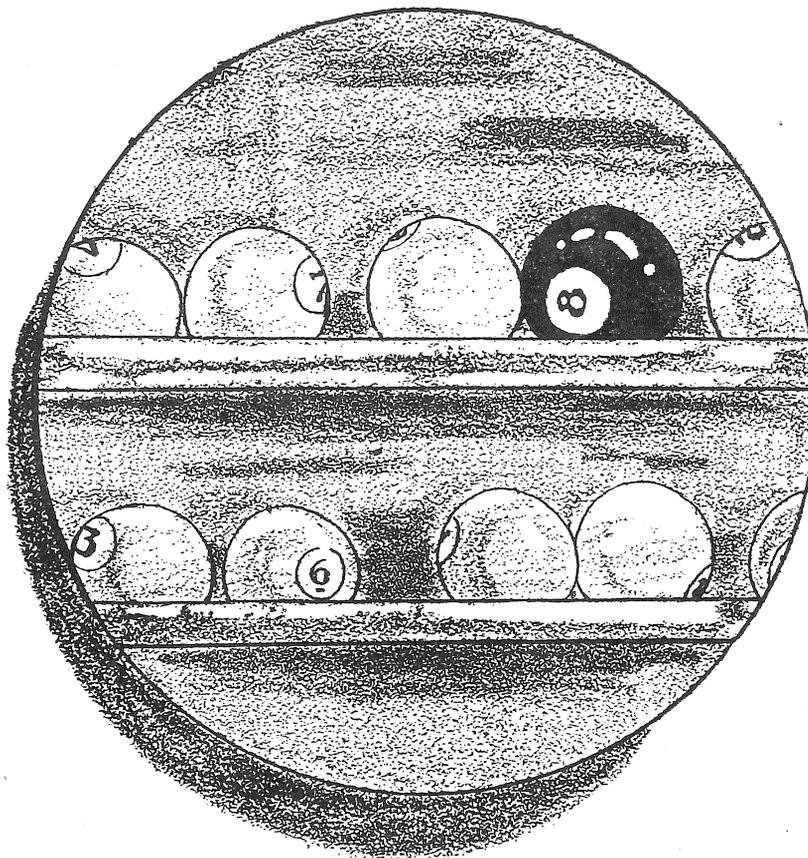
THERE was a sharp click as white met black under the glow of the three green-shaded lamps above the corner table in Jerry's Pool and Billiard Hall.

Doctor Dawson watched with halted cue as the eight-ball sped straight to the corner pocket and plopped from sight as though gulped from the green cloth. That shot cleared the table. Dawson had won the pool game. He glanced at his watch, frowned when he saw how late it was.

"Sorry, gentlemen," said the astrophysicist. "I must hurry. I am lecturing this evening on the correlation of time and space. What seems a mere hour to us might represent centuries or even ages to the inhabitants of a more limited cosmos. To creatures, for instance" — Dawson paused, looked for an example and brightened — "whose worlds were pool balls rolling in a universe the size of this table. An unfortunate universe it would be" — Dawson's head shook sadly — "for the paths of its planets would be straight lines. They would not long survive."

Dawson bowed his good-night and departed. Bill Farnum plucked up the cue-ball and put it on the shelf. He didn't realize that its cold surface was caused by a film of perpetual snow that completely covered Devolo, the White Planet. Bill returned to the table, dipped into the corner pocket and brought out Infinito, the Black Planet.

AS his hand idly juggled the jet-hued sphere, Bill Farnum never realized that only a few minutes ago, as he would measure time, this had been a living world. That would have been the equivalent of centuries to the long-dead inhabitants of Infinito. But even if he'd handled the planet back then, Farnum's touch would never have sensed the imperceptible markings that represented low-ridged hills, nor felt the ever-so-slight moisture of the



INFINITO, THE BLACK PLANET

shallow, inky seas.

But those were gone now, like Sijor Majox and the thousand Quillians. The glossy, anthracitic surface of Infinito was as smooth as the shiny, snowy wastes of Devolo.

Chris Christopher stood glumly by, his hand on the wall-switch

"Dawson dodged our questions," asserted Chris, "because he didn't want to answer them. All that double-talk of curved space and limited universes, who would believe that rot? What a stupid analogy, comparing pool balls to a cosmos!"

Chris was staring straight at the

shelf where Bill had placed Infinito. Purely by chance, Bill had set the black world so that its polar cap was outward. The numeral on that sphere happened to be so turned that it proudly proclaimed itself the symbol of infinity, the token that had caused countless generations of inhabitants to believe that their Black Planet would exist forever.

But Chris Christopher didn't interpret it that way as he pressed the switch that extinguished the three, green-shaded suns. To Chris, the Black Planet was just another eight-ball.

—THE END—

INTERESTING DATA ON NATURE'S SPACESHIPS

Skeptics who doubt the possibility of space travel in either the immediate or distant future should catch up on a few vital statistics. Every day, a mere one hundred million space transports haul into our planet, Earth. Since this has been going on for countless centuries, we may safely assume that space transportation is the commonest of all forms of travel.

The space ships in question are the meteors which approach the earth in huge swarms. When they encounter our atmosphere, its friction burns them to a crisp, so that only the larger ones are visible to the naked eye as "shooting stars" or meteorites, the term applied to those that actually reach the surface of the earth.

During the famous meteor swarm of November, 1833, nearly a quarter of a million shooting stars were visible

—by estimate—from a single observation post, between midnight and dawn. This is merely representative of the trillions or more that are constantly roving through interplanetary realms.

The fate of the average meteor does not stand as an argument against the prospect of space travel. Quite the contrary. When meteorites land on Earth they are frequently cool, because friction with the air has worn off their outer layer. From this we can assume that space ships, equipped with envelopes of suitable materials, can negotiate safe landings on other planets.

Meteor swarms may some day be regarded as the trade winds of interplanetary commerce, with their study the most important branch in the entire subject of astronomy.

THE END

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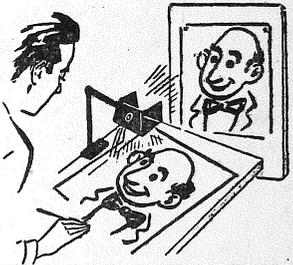
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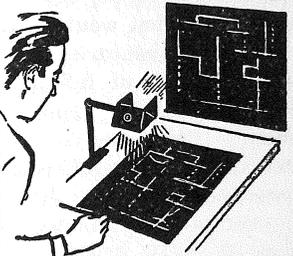
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Science Fiction On Parade

By LITZKA RAYMOND

APPROXIMATELY a quarter century has passed since the word "Scientifiction" was coined for a brand of literature then undergoing a rapid as well as sudden expansion. Since then the term has been shortened to STF and experts are still speculating as to the real origin of such writing; some dating its inception to the ancient days of Homer the Bard, while others ascribe it to the modern era of Jules Verne.

What concerns us more is the present and its relation to the future — or we might say the numerous futures — that we read about in STF. Despite the harping of critics, the "S" now stands for Science and the "F" for Fantasy. More and more, those two extremes have approached each other until now, though they may deny a meeting of their own minds, they have met in the mind of the average reader.

Indeed, those unearthly twins of Science and Fantasy might be likened to a pair of tongs that never establish contact, although they grip a cake of ice — that's you, reader, frozen in fascination — between their capable prongs. What with the cold, hard facts of science producing greater incredibilities than the fantastic legends of mythology, the result was inevitable.

The growing literature of these twin fields has now begun to perpetuate itself, through the publication of anthologies that claim to contain the best of such stories written to date. With a vast range to pick from, the claim can be fairly shared by different volumes, but from the standpoint of the individual buyer, it should be defined according to his needs and tastes.

FOR the new reader of STF, there is material aplenty in "ADVENTURE IN TIME AND SPACE" offered by Random House at \$2.95. This is a reprint of a collection which appeared six years ago. Though somewhat abridged, the new printing contains 800 pages and its 30 stories include some of short-novel length.

The editors, Raymond J. Healy and H. Francis McComas state clearly that they have aimed to introduce modern science-fiction in stories that portray logically and well, man's existence-long fight against space, time, his machines — and himself. As proof that their choice is good, the book contains "Who Goes There?" — a noteworthy story which was adapted to motion picture form, but must be read in its original version to gain its full impact.

As a "started" or "pump-primer" —

again we quote the editors of the book — this volume fulfills its mission. With stories selected from over a period of a dozen years or more, it gives the reader not only a variety of tales, but a basic education in the evolution of STF.

SOME readers may be twice-familiar with "SCIENCE FICTION OMNIBUS" published by Garden City Press at \$2.95 and edited by Everett T. Bleiler and T. E. Dikty. The term "twice-familiar" far from being fantastic in itself, reduces to the simple factor of 2 in 1 where this book is concerned. The Omnibus is a double-volume consisting of two books originally published by Frederick Fell, Inc., as "The Best Science Fiction Stories: 1949" and "The Best Science Fiction Stories: 1950."

For those who do not have either of the original volumes, the Omnibus goes far toward being "the best" of 1952, most especially from the bargain standpoint. Variety vies with value in its 25 up-to-date STF stories, which include "repeats" by several authors, whose stories happened to appear in both of the original volumes. This will further acquaint new STF readers with favorite authors in the field.

The "dated" feature is to be commended as it shows the vogue in STF during the years mentioned. As the editors state, the Omnibus is a "representative collection of trends and ideas within the modern range of development." This marks it fine for anyone who is catching up on his STF reading and should give the book a permanent value in any library.

STILL more up-to-date is "TOMORROW, THE STARS" published by Doubleday & Company, Inc., at \$2.95. Edited by Robert A. Heinlein, this volume anthologizes nearly a dozen stories which appeared in magazines within the past two years, plus a few older yarns that were included because of special merit. Not one of these stories has previously appeared in any anthology.

Though its title smacks of space travel, the book does not confine itself to that branch of STF. In fact only a few of the stories deal with space. The editor classes all the stories as "speculative fiction" which deal with "the shape of tomorrow" and the stories themselves have been admirably chosen.

Though the editor draws a line between Science Fiction and Fantasy, the stories provide a strange medley of

robots and ghosts, with excursions into time as well as space. The best way to draw the line is to read the book. Even then you won't find out, but the experience itself will prove fascinating for those who seek their fill of STF.

FOR the more studious reader of STF, another new anthology "GREAT STORIES OF SCIENCE FICTION" will ring the bell and definitely. Published by Random House at \$2.95 this book contains a dozen stories by different authors including one by the book's editor, Murray Leinster.

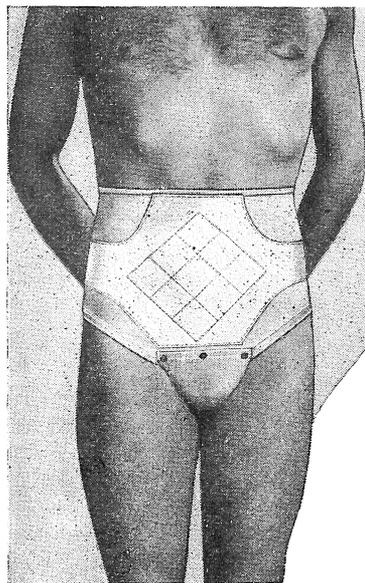
This collection advertises itself as free of "bug-eyed monsters" and their ilk. But the things that happen in its pages shouldn't happen even to a BEM. We meet a creature from an unknown planet who pilots a rocket-ship into a petunia bed and through x-ray vision observes earth-folk as living skeletons. In a story of "Liquid Life" a virus discourses with humans through a loud speaker.

The editor states that he chose these stories because he wished he'd written them, which is something of an idea for a story in itself. The book contains an introduction by Clifton Fadiman and each story is prefaced with interesting editorial comments. In all, the volume is as well-planned as the stories are well-chosen, which should please new readers as well as STF fen.

THE dyed and undying STF fan will find "THE OUTER REACHES" utterly to his liking. Published by Random House, Price \$3.95, the book contains 17 stories by well-known writers who individually aided and abetted August Delerth, the editor, by selecting their own favorite stories.

As a result, we find a mixture of space and fantasy in "Interloper" by Paul Anderson; a rocket-ship narrative with an O. Henry snapper in "Pardon My Mistake" by Fletcher Pratt; a down-to-earth yarn that might — or might not! — happen to you in "The Green Cat" by Cleve Cartmill. Add to these ingredients a batch of robots, blue mutants and other charming creatures, which produce a delectable dish indeed from the strictly STF standpoint.

The authors state their reasons for choosing the stories and whether the title of the book influenced them, or great minds merely travel similar spacetracks, a considerable number deal with interplanetary subjects. The net result is a unique volume that lacks the usual balance of most STF anthologies. This in a sense may be a point of added merit. Certainly the book should gain top-rating with constant readers who are interested in learning what makes authors, as well as their stories, tick.

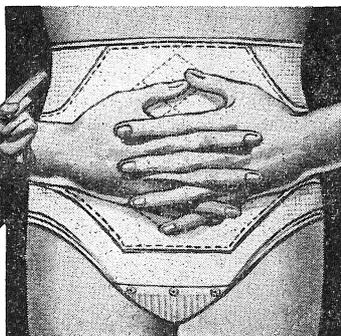


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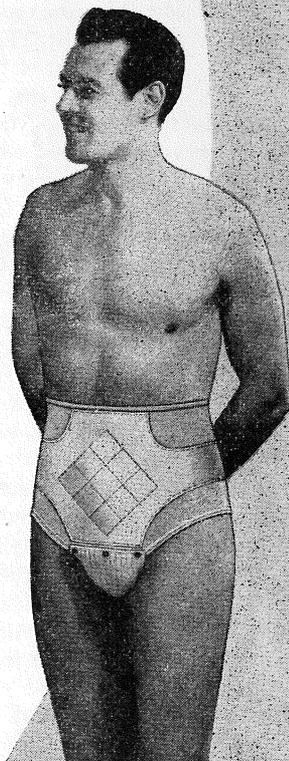
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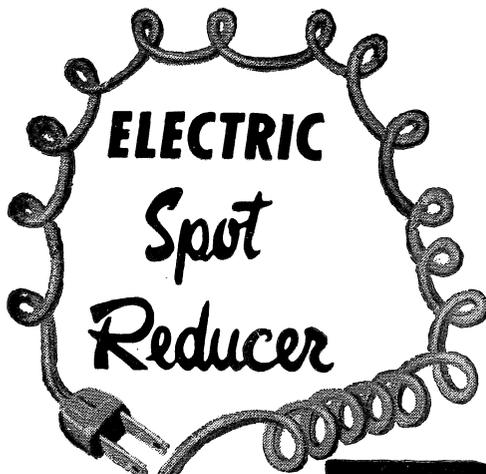
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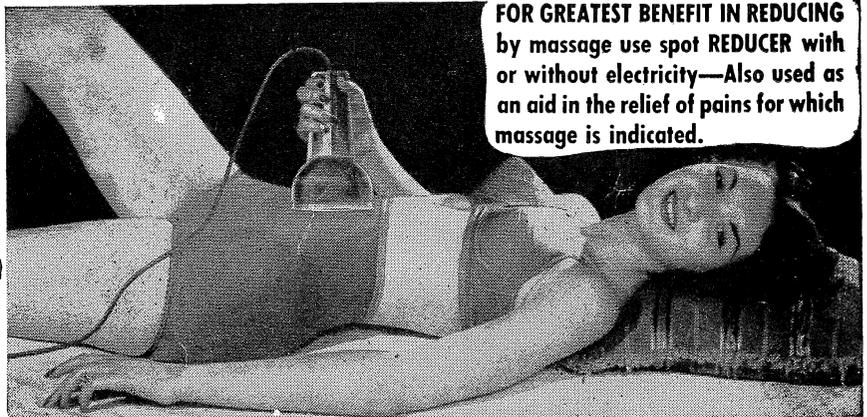
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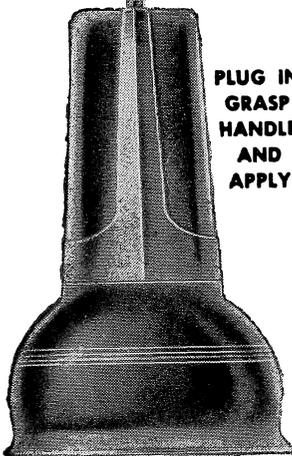
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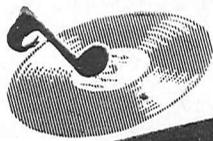
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