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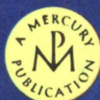
THE MAGAZINE OF Fantasy AND Science Fiction

ISAAC ASIMOV
On Throwing A Ball



AUGUST 60¢

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Fantasy and Science Fiction

AUGUST

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LIBRARY OF CONGRESS CATALOG CARD NO.: 51-25682

The Magazine of Fantasy and Science Fiction, Volume 37, No. 2, Whole No. 219, Aug. 1969. Published monthly by Mercury Press, Inc., at 60¢ a copy. Annual subscription $7.00; $7.50 in Canada and Mexico, $8.00 in all other countries. Publication office, 10 Ferry Street, Concord, N. H. 03301. Editorial and general mail should be sent to 347 East 53rd St., New York, N. Y. 10022. Second Class postage paid at Concord, N. H. Printed in U.S.A. *© 1969 by Mercury Press, Inc. All rights, including translations into other languages, reserved. Submissions must be accompanied by stamped, self-addressed envelopes; the Publisher assumes no responsibility for return of unsolicited manuscripts.*

A blurb is supposed to act sort of like the label and bouquet of a bottle of wine, but this story is so good and so different that it does not respond to that formula. Rather than trying to give you a hint of what's going to happen below—an almost impossible task—we will simply say that we've published many fine stories by Vance Aandahl over the years and this, we think, is the finest.

AN ADVENTURE IN THE YOLLA BOLLY MIDDLE EEL WILDERNESS

by *Vance Aandahl*

BIGFOOT HAD GONE WITHOUT food for three days when she finally strode over the top of a ridge and saw a long, arm-shaped meadow in the valley just below her.

As she crouched against a hemlock and pushed aside the tangle of brush blocking her view, Bigfoot's nose told her that there was no danger in the valley—no predator large enough to hurt her, and nothing made of metal—and her eyes told her that here at last she could pause to eat: tumbling from the forest's edge, a brook meandered across the elbow of the meadow, and both of its banks were thick with the light-green grasses whose roots bore tubers she could eat.

Rising to her full height, she bounded over the fallen bole of a spruce and padded down the slope of the ridge. Her stomach ached with hunger, but she took the time to find a path around a snarl of upturned roots and strawberry bushes that she might have trampled straight through were it not for the thin, sweet odor of copperheads; and she also paused, at the bottom of the slope, to check once again for enemies in the valley. Finally, assured that she was safe, she moved out of the forest and trotted through the waist-deep

chaparral of manzanita and buckbrush that led into the meadow.

The stream was only an icy trickle at the bottom of its bed, but lush patches of grass grew from the sand on both sides. Slapping her cheeks with excitement, Bigfoot leaped back and forth from one bank to the other. Stooping, she yanked two handsful of grass and tossed them high in the air: a snatch of green blades spun up past the morning sun, then fluttered back to settle lightly on her upturned face. Clucking joyously, she brushed the gravel and grass from her crest and then fell to her knees to dig and clean and eat.

Each tuber was no larger than the nail of her little finger, and a long time passed before her stomach was full.

When at last she had gorged herself, Bigfoot saw that the sun was high in the sky. She yawned and knuckled her eyes, then lumbered across the meadow, through the chaparral, and back into the forest. A short time later, just after crossing the next ridge into the next valley, she found a natural lean-to of dwarf junipers; and though she would have much preferred the greater comfort and safety of a birch-leaf bed in a cave, she crawled under the thick thatch of dark green needles, camouflaged herself with a row of broken branches, and then fell instantly asleep.

Bigfoot knew that she needed as much rest as possible before nightfall.

For then she would rise again to continue the desperate search that now had taken her far from her home in the northern mountains—the search for a mate.

Andy Skaarhaug was driving north on a winding dirt road through the Yolla Bolly Middle Eel Wilderness when his blue 1960 microbus began to choke and sputter and lose power.

He pulled to the side of the road and looked at the engine. Out of the darkness the hot, sullen steel dared him to touch its skin. From his high school physics class he remembered a movie about the four stages of combustion, but he couldn't say now what the four stages were, and he certainly didn't know anything else about a car's motor. At least nothing looked broken.

The microbus started again. As it putt-putt-putted down the gravel road, Andy hoped that nothing was really wrong. Maybe his mind had been fooled by the sinister-looking pills the doctor had given him. But the bus lost all its power at once, and after it had coasted to another stop, it wouldn't start again.

Andy suddenly realized that he was alone in a great forest. An unseen vise tightened on his chest.

Hugging the wheel, letting his

forehead rest against the windshield, he whispered a long wordless incantation against the fear rising in his throat and wondered at the irony of it all: his father, who had never dared to own or drive a car, had managed to warn him against nearly every hazard in a hazardous world except the danger of running out of gas on a deserted mountain road.

A man of many maxims, his father had twice or thrice daily announced that "life is what you make it," apparently meaning that Andy had better dig in deep or run like hell. His father had lovingly and repeatedly taught him to look out for lightbulb sockets, icy sidewalks, scissors, toadstools, liars, TB, railroad tracks, gasoline fumes, fallen power lines, dope fiends, unlabeled bottles, masturbation, dynamite caps, crazy drivers, drunk drivers, careless drivers, reckless drivers, truck drivers, motorcyclists, pool halls, oversimplifications, radicals, reactionaries, polio, colds, tree houses, razor blades, knives, guns, horror comics, botulism, unsupervised swimming, winos, bums, beggars, roughhousing, falling branches, dirty books, dirty pictures, heavy machinery, sunburn, eyestrain, hail storms, rusty nails, flu bugs, sore throats, syphilis germs, black widow spiders, mad dogs, rattlesnakes, broken glass, child molesters, pimps, prostitutes, rape artists, homos, sex maniacs, lightning, daydreaming, hot bacon grease, bicycles, swings, slides, roller coasters, aerosol cans, snowball fights, fistfights, fireworks, public toilets, electricity, idleness in school, frozen lakes, insecticides, matches, sneezers, coughers, hangnails, mosquitoes, bumblebees, wasps, hornets, hotplates, tight shoes, angry mobs, horse racing, dog racing, poison ivy, mine shafts, old refrigerators, plastic bags, card games, dice, bigots, bohemians, bars, boiling water, busy intersections, bullies, blisters, bad habits, boils, smoking, drinking, caves, gas leaks, earaches, religious fanatics, rafts, mumps, con men, pickpockets, lunatics, flash floods, violent movies, vitamin deficiency, sadists, homicidal maniacs, oddballs, hitch-hikers, political nuts, juvenile delinquents, cavities, measles, sunstroke, frostbite, splinters, firetraps, dangerous sports, carbon monoxide, and slippery bathtubs. To name a few of the prevalent dangers. But he had never told Andy about running out of gas.

Andy scrubbed his scalp with both hands and stared up through the windshield at the sun burning like magnesium against the cloudless azure. As a child, he had always been able to escape from the drab, relentless terrors of his father's world, had always fled into a clear and certain universe of his own invention. But now he was beyond the safety of invention.

He was alone—alone with the buzzing terror deep in his brain—alone beneath the darkening pines of the Yolla Bolly Middle Eel Wilderness. And he was defenseless.

He stepped out of the car. His body felt stiff and unreal.

He knew he had to wait for a passing car, but somehow he also knew that no car would come.

For he had been alone on the road for over an hour before the bus had run out of gas, and by now he was sure of what he had only suspected before: he had wandered in his daze onto a forbidden, derelict road that no one ever used anymore.

In her sleep beneath the junipers, Bigfoot dreamed of her childhood.

In her dream she touched her father's chest and felt the strength of his cradling arms, arms that could toss her in the air and catch her again as though the earth itself were rising and falling beneath her. She tittered at the boom of his laughter. And she looked into his black eyes: sometimes they were flat and hard; but now as he held her in his arms, she could see all the way into them, could see within them depths quick with swarming glints of colored light—apples and violets, slates and indigos.

He dropped her in the grass, stepped back to beckon her with a swing of his hand, then ran away from her down a curving slope of sorrel and heather. She shrilled and chased him. She stalked him up and down the slope, round and round a knobcone pine, then back and forth across a boulder field until at last she cornered him at the edge of an emptiness—a deep gorge boiling with water spray and mist; and then, as she stared up at the hulk of his body silhouetted against the moist white clouds, she realized fully the immensity of his power in an immense universe, the potency of the muscles swollen tight across his shoulders.

Suddenly the light dimmed: the sky of her dream rolled with thunderheads, the wind cut through her coat, and with a single signal of forked lightning the rain fell in a downpour. She stretched out her arms, but her father floated away from her, floated into the mist, floated and grew like a cloud in the mist, grew and faded until at last he seemed to cover the entire storming sky . . . and to lose himself in it. She turned and ran.

Elsewhere she found sunlight and a lake.

She lay on her stomach in the grass and drove her chin into the lion-colored loam until her lips touched and took the moist sand. She gazed down through the reeds and rocks into the waters floating with weed and hailstones. Fish moved in their dark channels beneath the air—fish with salt-gray faces, gnarled mouths, and yellow

lidless eyes fixed on the unchanging pathways. Ouzels and water shrews and a single mink splashed past the fish at the lake's edge, and then, when they had gone, the fish, too, were gone.

Bigfoot tumbled across the dark red heather of her dream. She crawled through a patch of huckleberries, sat against a stump to crush asters between her blue and petaled palms, heaved rocks and clods at a kingbird's nest, licked up the dab of taste from the egg that fell, then stood and turned and saw her father and the grizzly.

Her father waited in a crouch, his fingers opening and closing in front of his face.

Sniffing the air, the grizzly shuffled forward a step or two and paused. A thick blue scar ran through its empty right eyesocket and across its damp snout. Its left eye burned into her father's face. Slowly, the hair from its head to its tail bristled up. With a hissing snarl it swung up to its full height and rushed forward.

Bigfoot's father drove upward from his crouch to catch and hold the full impact of the charging bear: against the rainbowed sky their two straining bodies shook in a perfect balance of rage. Her father's hands locked around the bear's throat at the same instant that its claws sank into his back to rake the flesh, and then they bellowed death across the shrieking inch between their teeth. Each held ground and would not fall. The bear lifted pawsful of hair and muscle from her father's back, but her father tightened his black sinew-bursting hands until the bear's eye bulged and its tongue swelled from its mouth and its nostrils flared and bubbled with red foam and at last its gory paws slid from their claw-work. Finally, as the dead grizzly sank against his chest to the grass wet with their mingling blood, Bigfoot's father roared and roared again.

But did he roar in exultation or pain?

As he sank to his knees, the bright lifeblood streamed from the furrows in his back.

Bigfoot stared harder and harder . . .

And then she fell into a darker, dreamless sleep.

•

Two hours had passed, and no car had come to rescue Andy.

His head felt light. The muscles in his chest tightened painfully around his ribs. He wondered whether or not he should take another pill.

He leaned against the car and closed his eyes, trying to slide his mind back three days to when it had happened.

Presently, in his mind, he was there again.

He was standing behind a podium.

As he shuffled his notes, he im-

agined himself as a white-robed prophet bleeding poetry from a cross of stone. Then he moved into the conclusion of his lecture:

"The striking parallels between Jake Barnes and Hemingway himself should be evident by now. As we have seen, Hemingway was wounded on the Italian front while bicycling chocolate and postcards to the soldiers in the trenches; Jake is wounded while *flying* on the same front—surely an attempt by Hemingway to glamorize a reality which may . . . which may have embarrassed him . . ."

He paused to lift a forefinger to his upper lip.

He didn't bother at first to consider why he was touching himself; but then, as he prodded and poked and pinched, he began to realize that the entire region where his mustache would have been had he dared to grow a mustache was now numb and tingling—buzzing the way a foot buzzes when it goes to sleep—and had been for some five or ten seconds.

Abashed, he pulled his hand away from his mouth, hesitated for a moment, lifted his fingers to touch the lip again, then looked up from the podium to glance shyly at his pupils. Two girls in the front row cocked their heads to eye him, but the rest of the class dozed on, waiting in their mighty patience for the bell.

"We also know that Hemingway recovered from his wounds under the care of an American Red Cross nurse named Agnes von Kurowsky."

Andy gripped the podium and tried to will the spreading numbness out of his lip.

"Similarly, Jake recovers under the care of Lady Brett Ashley."

It was getting worse, much worse.

"And just as Hemingway fell hopelessly in love with Agnes . . . so too . . . does Jake . . . fall . . ."

By now the numbness had spread to his cheeks and was beginning to creep down into his lower lip, his chin, his jaw. Andy gulped and lifted both of his hands to his face, then panicked when he suddenly realized that his fingers too were growing numb. Terror pushed up through his throat like a metal fist.

"I'm . . . going . . . to . . . lie . . . down . . ."

Trying to see clearly the faces of his students now half lost in a diamond shimmer of light, he forced each word separately out of the tightening sphincter of his mouth, then sat down on the floor behind the podium. He lay back and stared up at the white checkerboard ceiling. The ocean roared in his ears.

"Mr. Skaarhaug! Do you want us to do something?" Faces hovered over him in the dazzling light.

"Esh . . ." Desperate, he

pushed the word through his lips.

"What do you want us to do?"

"Hosh . . . pittle . . ."

His entire face was paralyzed now, and his hands were curling into claws on his chest. The light brightened in his eyes until he could not see, the roar loudened in his ears until it seemed he was lost in the heaving seas, lost and drowning in the timeless white scud of a sea storm; and then he began slowly to realize that he was in a car—that he was lying on his side in the back seat of a moving car, that he was staring at an old, bent, half-smoked cigarette bouncing up and down in the car's ashtray.

He tried to move, but could not: he was paralyzed from the waist up, and now his feet were beginning to buzz and tingle too.

His chest was locked in a vise of its own panicking muscle, and in a moment he grew terribly afraid that he would soon be unable to breathe.

"Hur . . . ree . . . peash . . . hur . . . ree . . ."

My goodness, he thought. *I am dying. My goodness, my goodness.* The light in his eyes and the roar in his ears were drowning him again, and this time he was terribly sure he would not be able to surface. A five-foot sea spider hung on the crest of a wave above his face, waiting to drop . . . he remembered then for the first time in twenty-two years that the spider had come to him once before, once when he was three and in his crib and close to dying from pneumonia, that the spider had hung above him then as now, waiting, silent, invisible, ready to drop on the crest of the blinding light and the deafening roar . . . *Am I really dying? My goodness, my goodness, my goodness, my goodness, my goodness* . . . he remembered clearly for the first time in twenty-two years that then, as now, there had been a frantic rush to the hospital in a strange car, his father holding him then and screeching at the cabby, though now there was no one to hold him and no cabby, only a girl whose name he hadn't yet memorized, a nameless female student who was asking him something, shouting some question at him through the spray of foam . . .

"Mr. Skaarhaug! *What* hospital?"

"Peash . . . hur . . . ree . . . peash . . ."

"I'll head for Mercy! It's closest!"

He tried once to open his hands, but his fingers wouldn't move; then the white storm blew in upon him again, and the last thing he saw before it closed around him and swept him under was the butt of a cigarette vibrating in the burnt chrome jaws of the spider . . .

Suddenly Andy realized where he actually was.

He was standing next to his car on a deserted road in the heart of the Yolla Bolly Middle Eel Wilderness. And as he had reminisced, the afternoon had darkened imperceptibly into twilight.

The pressure in his chest was worse. Though he hadn't eaten for hours, something leaden and heavy sat on the left side of his stomach. He burped acid. His head buzzed.

"Help." He practiced the word in a stage whisper. His lips made a tiny popping noise each time he said it, and he repeated it again and again as a charm against the growing darkness.

Night fell.

Around him he could imagine the wilderness listening. Then he thought he heard a human cry, far in the distance.

"Help!" he shouted.

No answer.

He ran twice around the microbus, then crouched by the front door and stroked its pocked and peeling paint with the side of his face.

"HELP!"

The night air swallowed his shriek.

He jumped into the bus, locked all of its doors, and curled into a tight fetal ball on the floor beneath the back seat.

Bigfoot awoke to the chill of an evening breeze: it was still autumn, but winter was in the air.

She lay quietly for a moment, sniffing the wind and listening for prowlers. Assured, she lifted herself with her hands and knees to scratch her back against the roof of juniper, then stood straight up in a shower of needles, twigs, and branches.

Stepping free of the junipers, she shuffled into a shaft of light that rose like a solitary luminous column in the darkness of the forest: above her, impaled on the jagged edge of a single rent in the conifer ceiling, the moon shone brilliantly. She stretched in its false warmth and then sank into a squat.

While her bladder and bowels emptied, Bigfoot combed her fingers through her coat to shake loose the insects, needles, and bits of bark that had gathered there in her sleep. Her hands paused beneath her breasts, and she looked down at the moonlight glowing in the black fur.

For a long time those breasts had ached to give suck.

She tipped back her head and stared directly at the moon and then closed her eyes and then moaned softly deep in her throat.

It frightened her to be compelled and driven—frightened her to remember how far south she had traveled in her search.

Four nights ago the itch for a mate had finally overwhelmed her, and she had run from the box canyon that she had lived in alone

since her mother's death ten seasons before. She had torn her way through the tangle of rhododendron and madrona trees at the canyon's mouth, had run until she stood at last on a ridge—breathless and ecstatic above the waves of timber and rock stretching as far as she could see in all directions, and then in her ignorance she had gone south only because the writhing spine of the ridge had pointed her in that direction.

Before the sun had risen, she had trotted farther from her home than she had ever gone before.

And now, four nights later, she was still alone—alone in a strange land whose mountainsides were too gently sloped and too thinly forested, a land where food grass was scarce, an open land she could not trust, a land which twice had carried to her the distant bitter smell of metal.

She opened her eyes to the moon and moaned again, much deeper and louder this time.

Far away, across the farthest ridge, tiny but distinct in the evening stillness, a voice seemed to challenge her anguish with its own strange cry.

It was a cry much weaker, though shriller, than hers . . . yet somehow just as human . . .

Curled up on the cold metal floor of the bus, Andy tried to pass the terrifying minutes by remembering how he had awakened, three days ago, from the ocean that had drowned him.

He had awakened beneath a pea-green ceiling.

There had been only one noise: the heavy panting of a wounded animal.

As his vision had cleared and focused on the tiny ridges and craters of the ceiling above him, he had suddenly remembered the car ride and had first thought that he had been left in some lonely place to die. Panic had surged through his chest.

But then a face had quietly entered his field of vision and hovered over him—a face composed of curves, a face wrought of smooth brown eggshell modeled into flesh, a face with lemon rosettes fixed around eyes as black and quick as oil under glass.

"Dr. Sumitomo," he had said. "Hi."

"Try to relax, now . . ." Smiling, the doctor's face had moved back an inch: bits of yellow had glistened in the pores; among the white, one gold tooth had caught an arc of saffron light and then had been lost in moving shadow. "Breathe as slowly and shallowly as possible, and just try to relax . . ."

Realizing then that the heavy panting was his own breath, Andy had closed his eyes and pitched his will against the terror in his chest.

As he had struggled against

himself in the darkness, his fingers had moved idly across the surface beneath him: it had felt like leather; and at the same time that he had realized that he was no longer paralyzed, that the buzzing, tingling numbness had drained from his body, he also had guessed that he must be lying on the examination table in the emergency ward of Mercy Hospital.

"I have a pill that the doctor wants you to take."

Andy had opened his eyes and lifted his head. While the nurse had first filliped a tablet onto his tongue and then had thrust a cup against his chin, he had gazed through the orange haze of down on the back of her arm and wished only that he might be made well enough to touch someday her flesh with his lips; but then he had lifted his eyes and seen that her face was the face of a bloodhound —soft, wrinkled, sagging with sorrow—and he had felt again that he was going to die.

Above him, pea green and menacing, the ceiling had threatened to descend with its weight of deaths: how many others, panting in their extremity, had perished on the same leather table beneath the same green ceiling?

"Just relax . . ." Dr. Sumitomo's face had appeared again.

"I was paralyzed from the waist up." Andy had licked his lips and tried to smile. "Did I have a stroke?"

"No, no. No." The doctor's eyes had glittered. "No. No."

"What happened to me then? I don't understand."

"You just had a little collapse—a spasm. How much sleep did you get last night?"

Andy had had to swallow. "I didn't go to bed until two. And then I woke up at five and couldn't get back to sleep."

The doctor had smiled. "You were drinking last night, weren't you?"

"I had a few beers." Andy had swallowed again and looked away. "But lots of times I've stayed out all night long, drinking *hard* liquor, and nothing like this ever happened before. Is something wrong with my heart?"

"Relax. Nothing's wrong with your heart. The nurse just took your blood pressure, and it's perfectly normal. Just relax and try to breathe slowly and shallowly."

"What *is* wrong with me?"

"Chances are you're developing an allergy to alcohol."

"An *allergy?*"

"Liquor's bad for you—very bad."

"Okay." Andy had looked squarely into the doctor's eyes. "I'll quit. I'll quit drinking."

"There's something else. You have to start taking it easy. You've been working too hard. You've been worrying too much about your job. Hmm?"

Bewildered, too ashamed to

confess his laziness, his long hours of sloth and ennui, Andy had shook his head back and forth without answering.

"I want you to take a vacation." The doctor had patted his shoulder. "I want you to rest in bed for at least two days—I'll give you a prescription for some pills that'll help you to relax and sleep—and then I want you to drive down to the seashore or up to the mountains and take a nice long holiday. You've been pushing yourself much too hard, but three or four weeks of relaxation should make you feel like a new man. You'll see."

"But what about my *job?*"

"Forget it for a while. Your health is more important."

"Well . . . I guess . . ."

"Of course." The doctor had leaned closer until the smooth bistre surfaces of his face were Andy's only heaven. "The most important thing now is *taking it easy*. You have to learn how to *relax and enjoy life. Life is what you make it* . . ."

The doctor had withdrawn, and Andy had been left alone—alone beneath the dark green ceiling, alone with its history of deaths: black coin-shaped cancers had grown beneath the skin of his neck; both kidneys had withered and shriveled into useless white pods; an artery had exploded somewhere deep in his brain.

Why had the doctor hid the truth? What really had shattered in his body? And how long would it be before he died?

Later, much later, after the doctor had spoken to him twice more and then had finally left, the nurse had lifted Andy into a sitting position and had smiled at him from the sad pouches of her jowls. "Your breathing seems much better. I think we'll have your wife drive you home now. It'll be easier for you to rest in your own bed."

"Not my wife . . ." Andy had wondered who she meant.

"Oh." The nurse had chuckled deep in her throat. "Your girl friend."

"No." Looking past her into the darkening pea ceiling, innocent and virginal Andy had suddenly understood. "My student."

After two days of fitful sleep, Andy had risen from the limp and faintly malodorous sheets of his bed and gone to the telephone, and then it had taken a nerve-shredding hour to con four graduate assistants into teaching his classes for the next month. He hadn't dared to phone the department chairman, had gone instead to the kitchen window to stare from the darkness of his dingy apartment at the bright autumn sunshine glinting off the lid of the trashcan, had stood there in indecision for nearly an hour, had finally sat at his typewriter to prepare an explanation for his forthcoming absence.

As he huddled shivering against the back seat of the microbus, he remembered how he had mailed the letter in the morning, just before leaving on this, his vacation trip to the mountains.

He had dropped it into the mailbox.

And then he had glanced guiltily behind him and slunk into the bus.

Bigfoot rose out of her crouch and stood still. The cry she had heard was gone. The only sounds now were the hoot of an owl sweeping through the night sky and the susurrus of the quickening breeze.

But then she heard it again: a tiny shout beyond the farthest ridge.

The hair on her back tingled, and without understanding she began to feel the old fear that had driven her ancestors thousands of years before her to hide in the deep and inaccessible recesses of the high mountain forests, to sleep by day and go about by night, to live always alone or in small families so as never to leave lasting evidence of their existence. She felt that ancient fear, and though she did not understand it, her whole body shivered once.

And then, for the third time in as many nights, her nose caught the acrid odor of metal.

Bigfoot had seen metal only once in her short life.

It had happened ten seasons before.

Bigfoot's mother had left her alone in their canyon, had not come back for two nights and days; and in her happy innocence Bigfoot had awakened from sleep on the third evening to romp after mice and voles in the tall alpine grass, to splash herself with water until her fur was soaked and sleek, and only casually to wonder why her mother had not yet returned with mountain raspberries and softer bedding.

As she played, the evening had darkened into night. Joyous beneath the stars, wrestling with countless imaginary bears on the sandy porch of their cave, Bigfoot had lifted her head to sing and cluck, but instead she had seen in the moonlight at the mouth of the canyon her second terrible vision of personal and immediate death: her mother dragging herself through the grass, pushing herself forward with one straining leg while the other—a swollen mass of raw meat—caught in the underbrush and held her back.

All through the night Bigfoot had wailed over the dying body—had wailed and bawled until at last beneath a sky brightening into morning she had seen the pain in her mother's eyes darken into jelly. Only then, in the glare of the rising sun, had she seen clearly the metal jaws locked in the swollen ankle.

And now, ten seasons later, alone in a strange land, Bigfoot knew that she was close to the same death. The breeze which had brought her a strange but human voice was bringing her now from the same ridge the sharp reek of metal.

For a long moment she hesitated.

Then she rolled her enormous black shoulders and strode out of the moonlight into the darkness; and as her pace quickened to a trot, she moved not away from the distant ridge, but toward it . . .

Andy first knew something was wrong by the stink.

Wrapped now in the two blankets he had brought, he was hunkering on the floor of the microbus, wondering what the trappers would say when they found his heart-failed body in the morning ("Look here, Lucas . . . some damfool flatlander got hisself lost on the ol' Yolla Bolly Middle Eel Wilderness Road 'n' ran outta gas 'n' cashed in his chips . . ."), when a tangible stench rolled across his face like a stream of liquid garbage. He choked and opened his eyes. The reek of decaying filth thickened around him. For the first time in nearly three hours he forgot the horror in his chest.

He lifted his head an inch to stare up through a window: stars shone in the night sky.

But the nauseating fetor was growing richer and stronger: his stomach moved and he gagged.

Then he heard a noise.

Someone . . . or something . . . was walking around the bus.

His body froze. Inside his chest he could feel the blood-muscle exploding. His eyes locked on the window above him.

For the stars were slowly disappearing: a great black presence slowly rose against the sky, slowly pressed forward against the fragile, meaningless glass. At first it was nothing less than the horror in his chest come alive and huge to rend and gnaw his parts; but then he saw that it was a face. Bars of moonlight glowed across its nose and cheekbones, and Andy could see the indigo glister of its eyes as they moved to meet his, the yellow gleam of its teeth as the lips parted in what could only be a smile. It *was* a face—a *human* face, a human face half again as large as any face he'd ever seen before. And it was covered with fur. And it was smiling —smiling down at *him*.

Andy stiffened.

His arms and legs were paralyzed. He tried to move his fingers, but they stayed where they were, clamped to his genitals. He could feel only the racing of his heart, hear only the buzzing roar of blood pounding through his brain. He was lost again in the heaving ocean that had swept him

under four days before, but this time he saw something more than an imaginary sea spider hanging over him—he saw something else, something impossibly real. As the storming darkness closed around him, he saw the great loving smile of a human giant.

He fainted so quickly that he didn't even hear the first crunch of metal folding under enormous hands.

Branch by branch and leaf by leaf, Bigfoot loped through the pathless forest with her mate slung across her shoulder.

He was only a child, half her weight.

He was pink and hairless.

And he was wrapped in a clinging stuff she'd never seen before.

But he was a man.

Tittering, chortling, clucking gleefully, Bigfoot swung her way beneath the conifers. She had ripped the big metal bear to pieces. She had taken her mate from its belly, and then she had torn out its entrails and strewn them up and down the bear's path to frighten other bears, to tell them that she, Bigfoot, was their terrible enemy.

She stopped beneath a giant tongue of rock and lifted her lips to the light streaming down through the pines and firs. Pied luminous, glossy and vibrant, her face shone back at the moon.

First she would take her mate back to the valley where she had found food grass growing. She would strip away the stuff clinging to his skin and clasp his pink, hairless body to her warm fur until he awoke. She would feed him, and then the two of them would travel north to her home in the high mountains. There she would care for him until he grew into manhood. Someday he would stand as tall and strong as her father, and someday she would bear many children by him.

Bigfoot crooned up at the moon. Then she leaped up from one ledge to the next until she stood on the roll of the forest's huge stone tongue. She let her mate slide from her shoulder into her arms, and she gazed down at his delicate face.

He stirred once. He opened his eyes and looked up at her face. His mouth opened. His mouth opened wider and wider until the lips seemed ready to split. Then his eyelids drooped again; his head rolled back against her arm; and presently his gaping mouth closed into a thin, tight line.

Bigfoot caressed his forehead with the downy fur on the back of her thumb. Then she hugged him to her breasts. Spinning from one foot to the other, she danced with her mate across the smooth bright stone.

Andy was wakened by the cold wind against his back and legs.

But his naked front was warm.

He moved his face against fur. Its living stench was all around him. He pushed feebly away, met no resistance, tumbled. Then he was lying face down on the ground: rough sand, the prod of a weed, rocks cutting into his thigh. He did not look up.

Something touched his back. He stiffened and ground his face into the sand. It was unmistakably a hand—an enormous hand covered his back from one side to the other. The only thing then that amazed him was the thought that caught in his mind and would not leave: *I feel good: nothing's wrong with me.* The muscles of his chest had relaxed; his face and hands no longer buzzed with terror; his once-boiling blood moved smoothly now through its channels; his heart, he knew, would never burst. And as the huge and loving hand gentled his flesh, something from the primitive callus of its palm curled through nerve and bone and blood to twine itself in his brain: *I feel good: nothing's wrong with me. I feel good: nothing's wrong with me.*

He lifted his face from the earth and brushed the sand from his cheeks. He rolled slowly onto his back and looked calmly up at her.

Nothing about her surprised him, not now, not with the immaculate certainty of well-being and goodness rolling through his mind like a warm liquid: *I feel good: nothing's wrong with me. I feel good: nothing's wrong with me. I feel good: nothing's wrong with me.*

She was kneeling over him, looking down at him as she stroked his stomach and chest.

Her face was twice as large and twice as hard as Dr. Crashi Sumitomo's had been that other time—not limp morocco polished with earwax, but the black and uncured hide of a jungle buffalo. Her features were sharply defined: a high forehead, large intelligent eyes, an arched nose, prominent ears, chiseled lips, and a strong chin. Except for the nose, the cheeks, and the ears, her entire face was covered with black hair rising to a bushy crest of tufts at the top of her brow.

The muscles of her shoulders curved directly up to her ears, as though she had no neck at all; but even while he watched, she turned her head to question something beyond them in the darkness. He saw then the huge jut of her breasts in profile, saw also that her arms and legs were straight and well proportioned in length to the bulk of her torso. Except for the palms of her hands and the soles of her feet, her entire body was furred with black hair. But she was no animal: she was a human giant.

It occurred to Andy that he

was no longer offended by the stink of her body. As he lay beneath her, he smiled.

Anyone else would be frightened and would try to break away and run. He wondered why. His head felt remarkably clear—clear and clean and empty of even the slightest fear. *I feel good: nothing's wrong with me. I feel good: nothing's wrong with me. I feel good: nothing's wrong with me. I feel good: nothing's wrong with me.* The words flowed smoothly through his mind, washing it, flushing from it the toxic wastes of twenty-five years.

It didn't matter that he was lost and naked somewhere in the Yolla Bolly Middle Eel Wilderness. It didn't matter where he was or what he had. It only mattered that she was lifting him again to the warmth of her bosom—the warmth that would protect him from the cold wind. He muzzled his face between her breasts, closed his eyes, and slept.

Bigfoot knew now that her mate was not merely a sick child. He was different altogether. Yet he was still somehow human.

Just moments before, when he had opened his eyes to look at her, she had seen him smile. And as he smiled, the odor of fear had finally stopped oozing from his soft pink skin.

She patted the tiny body dozing between her breasts. Shifting back and forth from one buttock to the other, she rocked the burden of love in her arms. She clucked melodies in his ear. She crooned the chill from his hairless flesh.

The she lifted her eyes to the crystalline skies and prayed.

She had no language. She prayed only in pictures and sounds, not in words:

Beneath the pure and frosted light, she saw her mate: grown large and strong, he stood at the mouth of their canyon like a birch tree in the wind.

Beneath the pure and glittering light, she saw her mate: leaping, he side-stepped the grizzly's first lunge and pounced onto its back; he locked his knees against its ribs and sank his fingers into its neck; the grizzly screamed; its claws thrashed behind its head; then its whole weight sank slowly beneath the grip of her mate's hands.

Beneath the pure and dazzling light, she saw her mate: he moved through the shadows of their cave, lowered himself to his knees between her legs, waited for a moment above her, then met the rising arch of her body with the sudden forward-rolling mystery of his male strength, then breathed deeply into her mouth, just—she remembered—as her father had panted against her mother's lips in the dim caves of earliest childhood.

Beneath the pure and stream-

ing light, she saw her mate: he flexed his shoulders now great with muscle and hair, laughed once, then ran easily across the meadow as their daughter shrilled with joy and romped after him; and at the edge of the creek, Bigfoot herself looked up from the piles of food grass she had collected to watch and smile in sweet reminiscence.

Beneath the pure and neverending light, she saw her mate . . .

Sleeping in Bigfoot's arms, Andy dreamed, as he often had, of a dormitory.

He was sitting with a black man and a yellow man on the bed in one of the rooms of the dormitory. All three of them were wearing pajamas. Andy's were purple with green rings. The black man's were green with yellow rings. The yellow man's were yellow with blue rings.

"Let's write poems," said the black man.

Andy braced a Big Chief tablet against his knees and began to print with a ballpoint pen in very fine lettering as clean and neat as type:

How do I love thee? Let me count the aberrations.

But before he could write a second line, he was disturbed by a sifting noise from the ceiling, as though the whole room were being powdered with flour.

He looked up from his poem just in time to see that the yellow man was disappearing into a painting on the wall. It was, in fact, a painting of Dr. Crashi Sumitomo. He was wearing a black ten-gallon hat, a red and black kerchief tied around his neck, a blue denim shirt, a white and brown cowhide vest, wind-whitened levis, a pair of furry gray sheepskin chaps, black boots with silver spurs, and a big gun-belt slung low across his hips. One foot in the stirrup, he was just preparing to mount his horse, a golden palomino. A single red mesa stood in the distance.

So Andy was left alone on the bed with the black man.

"Let's trade," said the black man.

They traded.

Andy read the black man's poem:

Because you fed me hellebore
I now must eat your flesh and skin
And drink your dappled clotted gore
That you may come to me within.

When he looked up, the black man was gone. He was alone in the room. He looked at the painting on the wall. It had changed into a pin-up.

The pin-up girl was a strawberry blonde with hazel eyes. She was wearing a black ten-gallon

hat, a red and black kerchief tied around her neck, a white and brown cowhide vest, black boots with silver spurs, and a big gunbelt slung low across her hips. She was standing next to her horse, an appaloosa. Her fingers were twined in its mane.

Andy slipped off the bed and walked across the cold tile floor for a closer look.

The cowhide vest was thrown open by the thrust of the girl's plum-nippled breasts. Her dimpled white buttock stood clearly against the pied flank of the horse.

Andy sighed.

While his left hand rose to idly trace the full curve of her breast, his right hand fell to fret at the buttons of his fly. The purple cotton parted. At length the stiffening flesh emerged. He gripped it and squeezed it gently—once, twice. He moved the skin against the shaft—back and forth, back and forth—slowly at first, then faster, then frantically.

And then he awoke . . .

As her mate's body stirred and squirmed against her belly, Bigfoot rolled back in the sand and smacked her lips at the moon.

But then, when he squirmed again, something small and hard touched her groin. She lifted her head to stare at his face in the thicket of fur between her breasts.

His eyes opened. In the moonlight they burned as red as the fire that had run through the forest once when she was a child. His mouth was sealed in a hard line, but a froth of bubbles foamed from one nostril. His hands crawled over her breasts. She saw his buttocks lift and fall, and once again she felt something prod the soft flesh between her thighs.

She stared in amazement. His lips opened, and he groaned. His teeth ground through the hair, and she suddenly felt his tongue against her chest.

His buttocks lifted again. His whole body bucked down. For the third time a tiny hardness butted futilely against her. She heard him moan through his foaming nose. She felt one of his hands leave the swollen nipple it had been squeezing and work its way down between their bodies until the fingers were groping into her damp tissues. He arched his back again; and when he pushed down this time, she felt his thrust move all the way into her body.

In her abdomen she felt a strange vibrant warmth. She let her head roll back: above her, the moon seemed to swell and the stars to spin. She lifted her hands to her mouth and bit into the knuckles. She heard him moan again, and then she heard another, deeper moan from her own lips.

Something wonderful was moving in her body, but somehow it was not enough—it was not, for

her, the thing itself. She lifted her back from the sand to meet it, but it was still too small, too gentle. Her mate was shrieking now on the bridge of her body, his frail arms locked around her sides, his little knees churning frantically against her thighs, but even the extremity of his lust was only a suggestion, for her, of what the thing itself might be.

Suddenly she felt his tiny seed pulse into her body. For one tantalizing moment his hardness seemed to grow within her, but in the next moment it softened and shriveled away.

And then her frustration overwhelmed her: agonized, she lifted her arms and brought down her fists in one convulsion of blind rage.

Something snapped.

Lifting her fists from his back, she stared down in horror at his eyes. They looked closely at her . . . through her . . . beyond her . . . and then they closed. A sigh that might have been a laugh escaped from his mouth. The froth of bubbles shivered and hung unmoving from his nose.

Hugging his body to her bosom, Bigfoot staggered to her feet. His head fell back, and she saw the hairless pink flesh of his face withering and hardening in the light of the moon.

And then she felt the pygmy seed dribbling down her thigh. A great coldness filled her womb.

Later that same night she began the long trip north to the canyon where she would live out the rest of her life . . . alone and childless in the darkness.

In the August issue of

Venture Science Fiction

THE LEAGUE OF GREY-EYED WOMEN, a gripping new novel by Julius Fast (a versatile writer whose credits include a Mystery Writers of America "Edgar" award for best mystery novel and whose latest book is about the Beatles). THE LEAGUE OF GREY-EYED WOMEN is a fast-moving SF thriller about a terminal cancer patient whose only slender hold on life is through a group of mysterious women and a daring experiment that brings fantastic results. Plus, short stories by Dean R. Koontz, Edward Wellen, Robert F. Young and others. All stories are new and complete in one issue. The August issue is on sale June 12; 60¢ at your newsstand.

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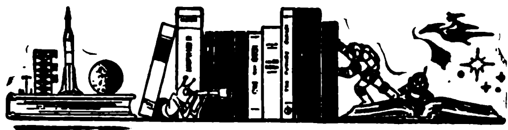

SOUTHERN CALIFORNIA WACKINESS consists not only of oddball phenomena but in the attitude you take toward them; more than matter-of-factness or casual acceptance, it's simply the lack of realization that anything odd is going on. Ron Goulart is the only science-fiction writer I know about who writes from this point of view—in fact, he hardly seems to write from any other—and THE SWORD SWALLOWER (Doubleday, $4.50) is a running fire of dead-pan jokes of this peculiarly Forest Lawn kind. (The back jacket says Mr. Goulart spent his first twenty years in Berkeley, so maybe it's just California.) The tone of the novel resembles that of Mr. Goulart's Max Kearny stories and the plot (to speak heavy-handedly of what doesn't, after all, matter much in a comedy like this) sprawls and straggles over a planet-wide cemetery which is complete with ten-story neon wreaths, The Eternal Sleep Coffee Shop, etc. Through this world of mad monologists travels a tired, realistic, decent, unsurprisable government agent who has been hybridized with Plastic Man. It is a world of flower children, leftists, rightists, retired Wing Commanders, geriatrics hotelees, incompetent girl spies, protest singers, tomb-robbers and other all-too-credibles. A shorter version of the novel was first published in this magazine in 1967; it was funny then and is funny now, although it spirals out of control once in a while and the constant whimsy tends to dematerialize not only the action (which hardly matters) but the characters and situations. Like mad Ophelia, the book turns all to favor and to prettiness. Sometimes the essential innocence of the characters is refreshing, but sometimes Mr. Goulart looks like a man who has wandered observantly through Gehenna and decided it would make a great place for a wienie stand. The self-righteous and vicious young, the callous old, middle-aged liberals with massive guilt complexes, ineffectual innocents, rigidified right wingers—if this were a serious book, the hero would have killed himself on the last page, only the reader would have anticipated him.

As it is, the whimsy is unflagging (or relentless, depending on your taste), detail proliferates insanely, and the plot serves well enough, though there are important weak points (e.g. would you send someone you *know* can change appearance at will out into a fake jungle to be hunted?). I found it a very funny book. For example:

> "I guess you spies get a lot," said Alberto . . . "The way you're always working with these girl agents . . . Some of these girl agents aren't exactly zoftig but even a wisp of a girl agent is okay now and then if you want to change your luck. Sure, you get cooped up with a slender girl spy you can get just as horny as if it was a nice hefty broad. I figure."

Sometimes you get cooped up with a slender, insane Goulart novel and it's okay too.

Avram Davidson's THE PHOENIX AND THE MIRROR (Doubleday, $4.95) is an oddly dragging, sometimes fascinating book that ought to be a classic romance and is not. Mr. Davidson has created an entirely new never-world, that of Vergilian Rome as seen in medieval legends, a "backward projection of medievalism" in which the ancient world becomes half Dark Ages and wholly strange, and Vergil not a poet but a sorcerer. The background is extremely well realized, so much so that I doubt whether one reader in twenty will recognize the amount of research that has gone into it—I doubt if I recognize this myself. The novel is not simply an all-out fantasy world or an excuse for adventures; the magic in it is developed with awesome logic, and one of the climaxes of the book concerns the making of a mirror—constructing a furnace, crushing the ore, making the crucibles, and so on. Either you follow this patiently or you deserve to be shut up in a television set and forced to read Marvel comics until your brain turns to oatmeal. There are wonderful details: the mineral kingdom alone includes the terebolim, the male and female firestones whose mating produces an unquenchable conflagration, and the petromorphs, whose stony and venomous jaws love to crunch the coals of fires. Except for one hunting scene, which seems to have been introduced merely to show off too much medieval lore, none of this stuff is dull and most of it is first-rate. But something has gone wrong.

I thought at first to look for the difficulty in the characters, and these are indeed types—the Beautiful Maiden, the Bluff Friend, the Ambitious Bitch, the Gentle Monster, the Loyal Gutter Urchin—but typing has never been a bad thing in itself. In fact, the characters in the novel are not only vividly conceived, but almost

always there is an extra twist—realistic or paradoxical or suddenly matter-of-fact—that makes them real people. It is all the more distressing to see these real people somehow forced into the role of puppets and made to populate a book that drags in spite of its splendid exoticism and the solidity of its background.

Perhaps the problem is in the plot. The book does not really have a plot, that is, an action in which self-motivated characters come into conflict with each other or something else through the pursuit of things they really want. What it has instead is an *intrigue* that never quite comes off (sometimes developments are too slow, sometimes too fast, often just arbitrary) and an intrigue needs a *diabolus ex machina*. One of the characters is pressed into service for this and is promptly ruined, although she has all sorts of potential (as do the others) for doing other things, if only it weren't for that damned plot. Mr. Davidson gives glimpses of the characters, looking remarkably lifelike; and then episodes of exotic action or description; and then the characters again, still looking lifelike but now subtly out of place; and each time the characters reappear they are more out of place. The denouement is like one of Dickens' worst novels, where you find out at the end that people have all sorts of complicated relationships with each other and wonder why you should care or bother. The logical solution is not a dramatic solution, and what ought to have prepared for it not only *looked* like an excrescence before; it still is one.

Perhaps Mr. Davidson is trying to imitate the stylization-cum-actuality of medieval romances, but his characters are much too real for this arbitrary playing around with their emotions. For example (the worst), the hero, having gotten half-way into a mystery—through a gimmick—must now have a motive to get all the way in. So he falls in love at first sight with the Beautiful Maiden, glimpsed in the magic mirror. A Vergil who got into his adventure through curiosity, or professional pride, or desire for money, would be much easier to take. The realism of the book does not jibe with many of the plot machinations. For one thing, there is some very modern Monday-morning quarterbacking about science (sort of!), music, and poetry. There is also an intelligence at work here, a modern, skeptical, cool, rather tired mind which is far more interesting than the ostensible romance of the main action.

The novel appeared in serial form, badly shredded, several years ago. Those who were puzzled by it then certainly ought to read it now. If it were a worse book, it

would be more unified, but it would also be a worse book, and a half a loaf can be very welcome, even when it's frustrating, as this is.

SMALL CHANGES by Hal Clement (Doubleday again, $4.95), THE BEST SF STORIES FROM NEW WORLDS #2 (Berkley, 60¢), and 7 CONQUESTS by Poul Anderson (Macmillan, cheers! $4.95) are as different as short story collections can possibly be.

"Old-fashioned" is a derogatory term nowadays, but it is the best single word for SMALL CHANGES —with the emphasis on "fashioned." Mr. Clement's world is that of *homo faber* and within its confines the stories are nearly flawless. All but one of the nine tales have been published before and are probably familiar to readers of the magazines. Without exception they are leisurely, extremely carefully done, and ingenious. Mr. Clement is in love with the laws of basic physics, and they are in love with him right back; in no other set of stories that I remember do the words "angular momentum" carry quite so much of a thrill. Mr. Clement's scientific ingenuity and accuracy have been praised before, but I would like to point out also that his thorough, careful, somewhat pedestrian style restores the astonishment to extremes of heat and cold, and that two stories ("Halo" and "The Foundling Stars") are fascinated by huge, slow-living, low-temperature organisms whose eyeblink (if they had eyes) would consume most of a human lifetime. Five of the nine stories are sort-of detective tales but Mr. Clement does not ask you to outguess him, nor does he play on suspense of the Omigod-I'm-dying or heave-and-sweat school. In "Uncommon Sense." (my favorite) he even telegraphs the ending—the hero survived—so that a reader can forget the *what* and concentrate on the *how*, which is amply rewarding.

Mr. Clement's world is certainly limited (hardly anything in these stories could exist in non-s.f. terms), but it's well worth the limitations. The characters are remarkably sane, calm people; there is a convention in science fiction of calling characters by their last names, and in this book alone (of all those I've read) does that convention seem entirely natural and appropriate. In "Trojan Fall" and "Fireproof" Mr. Clement uses central characters who are outside his range—a criminal and a spy—and the stories suffer accordingly. The other tales are slow to get started, exhaustive in detail, very quiet, almost completely devoid of social or psychological interest, and sometimes devoid of plot, except for the will-this-factory-run sort. When people talk about "pure"

science fiction of the "good old days," this is what they mean. Unluckily the good old days saw as little of this as we do; luckily Hal Clement is around now.

At least a week should intervene between reading Hal Clement and NEW WORLDS #2, or the reader will be in danger of getting the cosmic bends. Not only is this grab-bag made up half of non-s.f., what there is is in another universe. What is most striking about the stories as a group is their sleaziness—not only their accidental sleaziness, but a deliberate and systematic use of pastiche, fragmentation, little bits from popular magazines, and a sort of interested shuffling of avant-garde devices which are themselves parodies or derivatives of other straight writing. Some of this book is very good and some of it is awful, but none of it is solid.

Among the stories are three conventional and not particularly good s.f. stories based on ideas that, to put it politely, have lost their bloom: "The Transfinite Choice," "The Total Experience Kick," and "The Singular Quest of Martin Borg." There is an absolute howler called "The Countenance." On the deliberately sleazy side is an essence-of-Ballard story ("You: Coma: Marilyn Monroe") in which J. G. Ballard strips the Ballardian props down to the bare minimum and sets them drifting moodily past each other without even a pretext at continuity. Brian Aldiss's "Another Little Boy" creates a world similar to that of Michael Moorcock's *The Final Programme* (although more intelligibly), the common modern fantasy of an amoral, polymorphous-perverse existence in which death, although it exists, is either not really painful—to oneself—or not bothered about. "The Pleasure Garden of Felipe Sagittarius," in which the astute may discover an even stronger resemblance to *The Final Programme*, is another of the same breed, though to my taste a more evocative and less obvious piece. There are two decent science fiction stories (sort of) by John Sladek and Kit Reed, both parodic, and three excellent non-stories by Tom Disch, also parodic, which contain such gems of non-information as "When the ship sank, with all hands on deck, the captain went down with it. And so on." In short, the usual characteristics of avant-garde writing outside science fiction. What vexes people who don't like this sort of thing seems to be that although the stories are not exactly meant to be funny, they are nonetheless stuffed full of the traditional devices of comedy: repetition, mechanism, discontinuity, incongruity, surprise, exaggeration, lack of explanation and general bizarrerie. I don't mind this kind of work's

being bizarre (which it is) or incomprehensible (which it is only sometimes) or sleep-walker-cruel (which I rather like). What bothers me is that this kind of writing is basically parasitic on "straight" writing and hence very quickly exhausted. It is also best when it is shortest. The last story in the book, Roger Zelazny's "For a Breath I Tarry" is another kettle of fish. It works by sheer surface razzle-dazzle, as I suspect all Mr. Zelazny's writing does. It is a very silly and totally irresistible tale in which God, Satan, Adam, Eve, and the Ancient Mariner all appear under impenetrable pseudonyms, disguised as computers. It triumphantly manages all the mythical significance, the quasi-religious larger-than-lifeness that Mr. Zelazny has been trying to put into everything else lately (or was it before?). If the story hasn't done so already, it will undoubtedly win the Hugo, the Nebula, the Comet, the Nova, the Pebble, everything else anybody chooses to toss at it.

7 CONQUESTS is a collection of seven previously published stories by Poul Anderson about war (some indirectly so), and there is a succinct and sensible Foreword on the matter which is very welcome in an age of shrill unanimity on the Left and a scarcity of brains on the Right. Let me make it clear from the outset that I don't like adventure stories or war stories per se. It seems to me that they are severely limited forms; that is, one laser duel is like another laser duel and one chase like another chase, unless you pull a Hatchplot* and set your characters to chasing each other over Mount Rushmore and shooting their lasers while hanging by their toes from Teddy Roosevelt's eyebrows. The book includes a good deal of material that sneaked in while the author was asleep ("Lois, she of the fire-colored hair and violet eyes") and some that could appear outside science fiction with almost no alteration ("The trouble is these critters won't know about Carl Bailey, who collected antique jazz tapes, and played a rough game of poker, and had a D.S.M. and a gimpy leg from rescuing three boys whose patroller crashed on Venus."). The stories are fast and hard but they are often jerry-built, the bad material apparently coming in when Mr. Anderson has certain givens to set up and doesn't care how he does it. The curious result is that many of these stories—though they are all thoughtful and most pack a genuine emotional punch—*start out* as if they were going to be the worst sort of schlock. "Wildcat," one of the best and a picture of the Jurassic that I won't easily forget, begins as if it were going to

**MAD magazine's name for Hitchcock.*

be pure cliché: rough, tough, womanless men in an isolated jungle. It ends as something altogether different. The book is full of flat and conventional people who exist for the sake of the plot and not the other way round. They ought not to be more real but less so; there is no reason to learn about the psychological complexities of a man when it's the situation he's in that matters. And when Mr. Anderson reaches for images of the good life he somehow comes up with things that are frankly incredible. I wouldn't worry this point if the stories were bad, but when the author turns (with apparent relief) from the manly men and the lady with the violet hair and fire-colored eyes, he can be pointed, poignant, careful, wise, even funny—"License" casually mentions the American Freebooters' Laborunion and the Criminal Industries Organization, for one. And he recognizes, understands, and takes into account experiences that the authors in the *New Worlds* don't even know exist. Anyone who thinks I am talking about simple-minded patrioteering ought to read "Kings Who Die," a story that leads you right into a patriotic mess and leaves you there. One comparison: CONQUESTS is a grim, low-keyed, joyless, sometimes dreary book (not first-rate Anderson) which stuck with me and made me think—surprisingly, when you consider some of those cardboard personages. Zelazny's "For a Breath I Tarry" is an emotional orgy that made me cry, but I didn't respect the story for making me cry or like myself the better for it.

7 CONQUESTS also contains "Cold Victory," "Inside Straight," "Details," and "Strange Bedfellows."

—JOANNA RUSS

Allan Odegaard was a "Conscience," one of twenty qualified Practical Philosophers who made up an elite trouble-shooting crew for the World Council. The trouble on Misery was the Shamblers, and they were a mystery: stupid, awkward animals, with some unknown aberration that was making them increasingly dangerous.

THE SHAMBLERS OF MISERY

by Joseph Green

ALLAN ODEGAARD STEPPED briskly from the landing shuttle to the soil of what seemed his thousandth planet, and turned to meet the inevitable reception committee. To his surprise only one person was waiting, a tall woman wearing a wide sun hat, a coolly aloof expression, and an odd one-piece garment obviously designed for the local climate. It left only the face and hands exposed to the muggy, steam-bath heat. The suit's light cloth was suspended from an air-conditioning unit on her shoulders and pulled tight at neck, wrists and boots. A slight internal pressure puffed loose sleeves, pants and trunk into semicylinders that bent and reformed with her movements.

"Welcome to Misery, Conscience Odegaard. I'm Jeri DeWitt, plant manager." Her voice was deep, feminine and guarded. "Follow me and we'll get you out of that heavy rig and into one of our lightsuits."

She turned and walked rapidly toward a foamfab warehouse at the edge of the cleared ground, moving much too swiftly for a short man in a bulky spacesuit to keep pace. Jeri did not turn her head to check on his progress. When he fell behind, Allan deliberately slowed to the short-step walk of the spaceman and followed at his leisure. He had been warned that this lady executive was a tough customer, and he could expect only forced cooperation from her and her people. That could be a serious handicap;

willing local help would be badly needed if he was to complete his mission here in the shortest possible time. He was needed on Epsilon Indi Six so urgently that the Space Service neverlander now in orbit overhead had been instructed to wait for him. Colonists were dying on that newly settled planet, and he had been ordered to investigate the problem reported on Misery only because the ship was already scheduled to stop there. Somehow he must get through to this woman, settle the local question quickly and be on his way.

The dirt landing field was on the rounded top of a medium hill. It afforded a wide view of the hot and fecund ocher-green jungle smothering this watery planet's one small continent. Quite a change from his last touchdown on Lu'ana'n'borna, where the new colonists had been working desperately to stop an advancing ice sheet.

A small loading crew emerged from the building, hand-carrying rough wooden crates to the shuttle. The men nodded courteously to their visitor but did not pause for conversation. Jeri was waiting inside. She helped him out of his spacesuit and into the local clothing with impersonal efficiency. The brief time he was exposed to the ambient heat and humidity was more than enough. He saw that the light, comfortable shoulder unit contained a two-way radio and had a hand laser and canteen strapped on opposite ends, outside the cloth. The suit's exhaust flow passed in front of his face, providing breathing air that had been cooled and dried.

Jeri led him out the single door and off the crown of the hill onto a well-used game trail. They were moving through almost solid walls of greenery toward a larger foamfab building he had seen atop another cleared hilltop about three kilometers away. The tall woman set a fast pace and wasted no breath in talk, though she spoke to subordinates several times on her radio. Allan had to admit that this commercial business plant was certainly managed with tight economy. At a government or university station, half the personnel would have turned out to meet him, just to see a new face. He found himself wondering how this cold, driving woman managed to so effectively dominate the men working for her. Little tricks like walking ahead without looking back?

Allan had been in space under half-gravity conditions for two months, and Misery was a 1.4G planet. His legs were starting to tremble when they reached a narrow, laser-cut tunnel branching off to the right. Jeri turned into it and stopped short. He caught up to her, and found himself facing a Shambler.

The creature was standing silently in the trail, apparently waiting for them. It was over three meters high and humanoid in shape, with four very long limbs attached to a slim cylinder of a trunk. The hairless head was also long and slender from chin to temples, but from there up it swelled into an impressive cranium size. Its open mouth was only a lipless slit, and the dentition consisted of two bone grinding-plates. The ropy skeletal muscles swelled little more than the clearly visible tendons. Each arm and leg segment had only one bone, and the joints were huge and knobby. The skin was a uniform dull green and innocent of covering; no sex organs were visible. The entire body was trembling as though with ague. One shaking hand clutched the strap of a carrying sack, and the other was held before the face, palm inward, in an odd gesture of seeming appeal. Allan saw that the raised hand had three long, thin fingers, apparently without an opposing member.

"Back away slowly," Jeri said in a low voice. "This one is jumpy."

Allan was watching the dull brown eyes, which were blinking furiously. "Are they dangerous?"

"They can be. Herbivores, but armed."

The thin body began jerking with an almost spastic violence. Jeri took an easy step backwards, reaching slowly for the laser on her left shoulder. In the same conversational tone she said, "Several of our people have been attacked, and by trained pickers, within the past few months. Two were killed. All reports indicate the killer Shamblers were in the grip of some strong seizure, and this could be—*duck!*"

Allan was already diving for the ground. The towering skeleton figure had suddenly released the bag, and as it dropped, he took a giant step forward, a hand sweeping toward each human's face. His great stride and length of arm brought him within striking distance in that one motion. The flying hands were slightly offset on their wrists and the forearm bones continued through the base of the palms, forming two long daggers.

Allan felt his hat whisked away as a sharp bone pierced its conical top, and then he was flat on the dirt in the main trail and rolling, frantically trying to find the strap holding his weapon on the unfamiliar shoulder unit. He heard a hiss of heated air followed by a cry of pain; a long, narrow green foot hit the ground a few centimeters from his nose, and he turned on his stomach in time to see the Shambler fleeing down the path in a stiff-jointed, shuffling trot. The awkwardness of its movements explained the odd name. It was holding one

thin arm with an equally bony hand.

Jeri was calmly replacing her laser. "Managed to drive him off without killing him. Have to find the cause of these attacks. Getting serious."

Allan got to his feet and found his legs trembling worse than before. There was a lingering whiteness in Jeri's face, but she lifted the Shambler's bag and swung it to her shoulder with a brief, "Can't let these go to waste."

Allan had been close to death more often than he could remember, and scared witless each time—after the danger had passed. This was his first experience with rolling uselessly on the ground while a woman did the fighting. Even in a society of sexual equality that was an activity usually reserved for men.

They resumed walking. When his heart slowed to a less frenzied pounding, Allan said, "I was sent here very suddenly and had no chance to do research on the Shamblers. How do they reproduce, and where are the sex organs?"

"The Shamblers are oviparous animals; both sexes have retractable genitalia that fold up into a body cavity when not tumescent. You can tell them apart by the color. The female has a mottled green-yellow camouflage that helps to hide her when she drops out of the tribe to sit an egg."

Their moment of shared danger seemed to have melted some of the ice. "Can you give me a little background on them?" Allan asked. "I'd particularly like to know your opinion of their intelligence."

"The adults are definitely below the minimum reasoning level, though the children approach it. Shamblers reach maturity at about ten of our years in age. From the time that they come out of the egg until sexual potency, the young grow steadily smarter. A seven-year old is about the equivalent of a human child of two in innate intelligence. At eight they go through puberty, a painful affair that fortunately lasts only a few days. After the change they start retrogressing, and most old ones are like the male you just saw."

"That's an odd growth cycle. Any explanation?"

"Not even a good guess."

The trail began a steep climb and Allan needed all his wind. The top of the hill was free of brush and protected by a charged fence. The building behind it was obviously both processing plant and living quarters. Jeri deactivated the gate voltage with a key, and Allan followed her through the spacious yard and into a narrow vestibule. A cloudy sonic insect barrier hid the inner door to the recreation lounge.

"Put your gear in that rack. I'll be back in a moment."

Allan breathed the thoroughly cooled and dehumidified air with relief. The high-ceilinged room was deserted in the middle of the working day, but looked well equipped and comfortable.

Jeri was soon back, dressed now in figure-hugging tights. Allan had to make a conscious effort to keep the admiration off his face. He had been expecting a tall woman of lean arrogance, but the sun hat and inflated suit had concealed a full-bodied, statuesque Nordic redhead. Even in low heels she matched his height of 180 centimeters and probably outweighed him. She was only a little younger than his own forty, and strong rather than pretty, but a crackling vitality permeated every pound of her body—which was disturbingly shapely.

Jeri seated herself in a locally made contour chair. "Now what can I tell you?"

"Everything. I know very little about your operation here."

"Simple enough. We're employees of the Exotic Spice Company, operating a station on this planet under a government commercial charter. We extract and condense the spices that grow in abundance in these jungles. Said spices are one of the few products that can still turn a profit after paying the Space Service's exorbitant interstellar freight rates. We maintain a crew of twenty, consisting of myself, assistant manager Dergano, and eighteen technicians, of whom five or six are always women. We recently passed the break-even point after nine years developmental work and are starting to show a return on the investment. And let me add that we didn't send for a Conscience . . . and don't feel we need one!"

Allan felt a familiar irritation. His actual title was Practical Philosopher, but when Earthmen learned of the unique responsibility of the P.P. Corps, they had swiftly christened it the "Conscience of Mankind". In the 22nd century man's rapid expansion into the Hyades, Ursa Major and Scorpio-Centaurus clusters had brought him into contact with millions of new life-forms, many of them in a borderline state of intelligence. Since the World Council had decreed that planets containing reasoning beings could not be colonized or exploited, the decision assumed tremendous importance in doubtful cases. An elite corps had been established to make these judgments, with training requirements so rigid they deterred all but the most hardy. Allan had a doctorate in philosophy, with master's degrees in alien psychology, biology, motivational sociology, and political science. Only about twenty people had been qualified to date, and this small crew stayed very busy. But at least idealists in the Space Ser-

vice could no longer declare a planet off-limits because they mistook complicated instinctual patterns for reason, nor could university terraforming teams ignore budding intelligence and change a planet until its true owners were wiped out by climatic changes.

"I'm aware that you didn't send for me," Allan said aloud. "My 'customers' seldom do. Captain Arcan of the Space Service filed a request that the Shamblers be checked."

"Arcan? The captain of the ship in orbit waiting for you? I remember that he landed with the shuttle once and watched us training a new group. He spent some time with the Shambler children, and they do show a deceptive promise, as I've explained. But I'm an animal psychologist by training, and I've run extensive checks on the creatures. Not one adult has qualified as intelligent."

"He also said you pay for work by feeding the Shamblers a local addictive drug," said Allan slowly. "That, as you know, is illegal."

"Our attorneys will be happy to prove that the drug laws do not apply to animals!" snapped Jeri, obviously stung. "Starting the Shamblers on condensed *sorba* milk was my idea, and I had the legalities carefully checked. I didn't come here as plant manager, mister. I was the assistant to the psychologist sent to see if the beasts could be trained to pick spices, after it became obvious the plant couldn't pay its way with human labor and the company was about to lose a huge investment. I watched that man stumble around for a year, trying to get work out of the Shamblers. They don't take easily to routine labor. Food is free for the picking, and they're too stupid to want toys and gadgets. The pay-for-labor system failed here, because we had nothing whatever they wanted. But I had noticed that the adults were constantly eating *sorba* seed, though they have little food value. I fed a few adults the much stronger milk our plant produces in the processing cycle, and it sent them into a deep trance-state that's evidently highly pleasurable. When they came out of it they wanted more. I went to my boss with the idea of *creating* a need, using the *sorba* as a drug, and he climbed on his moral high horse and preached for an hour. The station manager let me feed milk to three, though, and with an effective reward-stimulus available, I made productive workers out of them in a week. Now we have every adult in the area working for us; this plant is running near full capacity, and the Shamblers have at least one pleasure in their miserable lives. The only change in their diet is that they drink the milk pure instead of eating the seeds."

"With the drug strength increased by what factor?"

"About thirty to one, but what does that matter? The milk doesn't physically harm the beasts, and the addictive effect is temporary."

Allan let the obviously angry woman cool down for a moment while he examined an alternative that had just occurred to him. Mass production had lowered the price of robots. A hundred robots, properly programmed and working day and night . . .

Jeri summarily disposed of the suggestion. "You can't build a robot with the necessary sensitivity. This world has no seasons. Three identical trees standing side by side can have ripe fruit, green pods and buds, at any given time. Each tree may support three types of creeper, each of which produces a usable product, with all three at separate points in the growth cycle. A Shambler knows instinctively when any given item is ripe. He eats many of them as his natural food."

Allan digested the information in silence and then tried a new tack. "Captain Arcan says that you have a Shambler female for a pet and that she works without reward by drug."

"Oh yes, Tes. That proves nothing whatever. Tes has received intensive training and has become motivated to please. Her reward is our affection, and she works to earn it. During one of our first training courses, she was almost killed by a contaminated batch of *sorba* milk—one of our techs mixing it had an undetected rare skin disease—and is deathly afraid of it. Tes stayed in our clinic so long we eventually adopted her, and she serves as a messenger or does simple jobs." Jeri stepped to the door of the sleeping quarters and called, "Tes! Come here, dear."

A moment later a thin, stooped figure entered and straightened in the higher lounge. Tes was slightly under three meters in height and a splotched mustard-green in color. The nude trunk was as featureless as that of a male.

"Tes is everyone's favorite Miserite," said the big woman, with undisguised affection. "I've managed to train her for fairly complicated tasks—cleaning the quarters, for example—but all the tests I've run indicate normal Shambler intelligence."

Allan studied the placid female with deep interest. The brown eyes looked back at him in a manner that hinted of evaluation.

"Her grasp of linguistic concepts is weak, of course, but she responds to many simple commands," said Jeri. "You can go, Tes. Go!"

As the Shambler obediently returned to her work, the station manager asked, "What would you like to see first?"

Allan told her, and a few minutes later he was following assistant manager Dergano, a lean, heavily tanned man of indeterminate age, to the working half of the building. A Shambler tribe had just arrived. They were being admitted into a long room that opened onto the yard at the opposite end from the living quarters. The adults were lined up to have their bags weighed and evaluated. Each individual received a quantity of *sorba* milk proportional to the kind and amount of spice he had brought, then lay down on one of a series of long low cots jutting from both side walls. The milk was swallowed in the prone position, and within a minute each Shambler seemed to drift into peaceful sleep. The time in trance was determined by the *sorba* consumed.

The young, Allan noticed, went into a large room adjoining the long one, where a technician locked them in. Before the door closed he caught a glimpse of fruits, vegetables, unbreakable water cans, and some elementary mechanical toys.

Part of the crew began working on the spices. They were sorted into types and emptied into hoppers protruding from the inside wall. Dergano explained that the actual extracting and condensing operations were almost completely automatic. The finished product emerged in a pressed block sealed in plastic. Even the *sorba* milk was dried into the crystalline form for shipment. On an Earthman's food it was a harmless and very tasty spice.

There was nothing to see among the somnolent Shambler adults. Allan asked to be let inside the room with the children, and after a short argument Dergano shrugged in sour exasperation and got the key.

There was an audible chorus of grunts and squeals as the door swung open, but it swiftly faded into a dead silence. Allan found himself the focus of all eyes. Several youngsters taller than himself were holding toys. Others had fruit or water cans in their hands. All were motionless and silent, and the lack of activity endured after he sat down among them. He waited until he was certain they did not intend to resume their normal routine, then rose and knocked on the door. The assistant manager, who was evidently waiting, let him out.

Dergano saw by the look on Allan's face that the idea had not been a success. "We learned what we know of the young while training the adults in the woods," he said drily. Allan could only nod.

The third meal was waiting when they returned to the living quarters. After eating, Jeri brought out the data she had accumulated. Her tests were standards with which Allan was intimately fa-

miliar, and he could find no fault in her work.

Jeri had concentrated heavily on Tes, obviously because she was always available. Her scores seemed to vary more than the rest but averaged out to normal. As he was poring over her records, Allan had another idea and asked, "Jeri, is Tes still on good terms with her tribe?"

"Why yes, she visits them often."

"Good. I'd like to borrow two picking sacks, and your pet. I want to see if her people will let me live with them for a few days."

"That's very dangerous, Conscience." The redhead looked slightly alarmed. "These woods are full of carnivores, a lot of whom prey on the Shamblers."

"I'll be armed. Don't worry about me."

"I'm not. I just don't want to be blamed if you don't come back!"

Allan watched Tes at her work. The Shambler female moved with mindless and mechanical precision, the three thin fingers grasping a pod and holding it against the opposing bone while she gave a little twist that broke the stem. Since she declined *sorba* milk, there would be no reward for her, but the tribe's new life-pattern dictated that all adults must gather spices. He picked at a somewhat slower pace, imitating her choices. Most of his attention was on the Shamblers around them. Their organization seemed equivalent to that of a baboon tribe. The mothers carrying babies stayed in the center of the group. They were surrounded by females with walking young and children large enough to pick their own food. The males formed the outer circle, the largest and apparently fiercest ones leading the way into new territory. Everyone watched for enemies. There was a fairly extensive range of sounds and gestures which conveyed meaning, and every adult knew them. The children obeyed their mothers without hesitation in times of danger, but otherwise devoted themselves to play. They picked only what they wanted to eat, leaving them much more free time than their parents.

When Allan first appeared with Tes, he had received many suspicious stares, but as she set to work and he joined her, they gradually accepted him. After two hours he might have been a member of the tribe all his life.

It was only a few minutes before sundown. A grunt originated at the edge of the circle and worked its way inward. The males stopped working, bunched everyone into a compact band and began herding them through the undergrowth. In a few minutes they reached a seemingly impenetrable tangle of thorn and briar.

The leader twisted his lean form around a bare tree trunk, moved sideways, and vanished. The rest followed one by one. Allan found sharp thorns tearing at his newly dyed green suit, but forced his way along a narrow passage and emerged in a small roofed glade. It had the smell of long years of use, a scent distinctively Shambler.

Two guards took up stations at the entrance; the normal order was broken among the rest, most of the adult males joining their mates and young. There was a low mutter of grunts and groans in the brief minutes before darkness. Allan saw a few couples begin to mate, but most of the males seemed to have little procreative urge, being content simply to be with their families.

Allan dug some concentrates out of his pack and stretched out to rest as he ate. Tes, who had apparently been accepted as his mate, was already asleep a short distance away. He had been in many weird situations during his ten years in space, but none stranger than this. Unique experiences were a P.P.'s greatest reward, and just then he would not have changed places with anyone in the galaxy. Even the loss of Kay and his kids—she had divorced him when he joined the Corps—paled into insignificance. You could hardly regret exchanging a dull teaching job for a life that contained such high moments.

The dull light of dawn found the tribe on the move. By midday most adults had a full bag, and at some signal Allan missed, the group closed up into a tight formation and started marching for the spice plant. How they found their way through the maze of twisting game trails was a complete mystery, but after two hours of fast hiking they wound up the side of a small hill, where the undergrowth thinned, and Allan caught a glimpse of the plant on its higher elevation about a kilometer away.

They descended into an unusually straight trail. After another five minutes, during which the group became scattered as the leaders pressed forward like eager children, they reached the bottom of the hill. The faster pace had dropped Allan to the rear with the young, and Tes stayed with him. When the carnivore that resembled a snub-nosed crocodile burst from the bushes and lunged at a tall child, they were only a few meters behind him.

Allan recognized the animal as one he had been warned of that preyed regularly on the Shamblers. It seized the selected boy just above the ankle, twisted and brought the tall form crashing to the ground, screaming. When the terrified cries reached the leading

males, the column halted, turning back on itself. They were too late to aid the child. As its head hit the ground, the attacker dove for the throat in a practiced movement, sank sharp teeth into the long neck and gave another savage twist. Allan heard the muffled crack of breaking bones, as he reached for his laser.

The carnivore, still holding the torn neck, threw the body of the dying boy across its scaly shoulders and turned toward the undergrowth. Several of the closer Shambler males, hands high and bones hidden, stood waiting for an attack signal. Someone saw that the child was beyond aid, and a harsh command came from further up the line. They were not going to risk more lives to recover the dead.

Allan was not taking a risk, and he wanted the body. His stomach was churning, in a familiar reaction to violence and sudden bloody death, but he leveled the laser with a hand that shook only slightly and burned a hole into the killer's feral brain. It crashed heavily to the ground, teeth still locked in the child.

Both were dead when Allan walked up. He had to look away for a moment to compose himself, then began prying at the closed jaws. They loosened easily and the thin neck came free. There was only a little blood in the wounds.

Allan grasped the flaccid knees and spoke sharply to Tes, motioning for her to take the trunk. She hesitated, but finally accepted half the burden. The procession resumed its fast walk, and when Allan and Tes fell behind, a large male dropped back and relieved Allan, and another soon took over Tes' load. Allan used his radio to alert the plant and requested that the station manager meet them in the receiving room.

At the fence a technician let them through the rear gate, and the Shamblers went directly to the entrance of the long room. Allan, not wanting to interrupt the usual routine, waited impatiently just inside the door until Jeri DeWitt appeared.

The big woman walked casually up to them, glanced at the child's mutilated throat, and averted her eyes. She took their bags, glancing into Allan's. "Not much here, Conscience. This won't earn you an hour under *sorba* milk."

"Spare me the bad jokes. I'd like to take this body into your lab, if I may. I'll run a dissection while the tribe gets its reward."

"Surely." Jeri led them to the lab, which was small and not too well equipped. "Do you need help?"

"I'll manage," said Allan briefly. "Just get Tes out of here. I don't want her to see me carving up one of her people."

She complied, and Allan reached for a vibra-scalpel. Three hours later, when the tribe was ready to depart, he was in the middle of a gory mess. He told Jeri to let them go. Tes could take him back to her people later.

The long day of Misery had ended when he finally stopped. He was almost reeling with exhaustion and had very little to show for his efforts. The Shamblers were just what they seemed to be, oviparous humanoids with a brain slightly larger than man's. Their nervous system, digestive tract, and major secreting organs were all found in some known animal. The only outstanding characteristic of the cell tissue was its noticeably alkaline quality, and he had no way of knowing if this was normal or a result of deterioration after death.

Allan forced himself to clean the lab, then bathed and headed for the dining room. He found remnants of a meal on the table. Tes was working nearby in the kitchen. He discovered he was too tired, and too full of the sight of blood, to eat. After forcing down some innocuous green vegetables he gave up the effort. Most of the crew were in the adjoining lounge, but Allan was in no mood for conversation and went directly to bed.

Sometime during the night Allan slowly awakened, gradually becoming aware of a warm and naked body pressed to his own in the narrow bunk. When he finally realized what was happening, he put both arms around that warmth and comfort, drew it close, kissed soft lips with a hunger too long repressed—and discovered he was holding the only woman at the station as tall as himself.

The knowledge that it was Jeri in his arms jolted Allan fully awake. He had been hoping one of the women in the crew might visit him—they had adopted the form of polyandry common to such outworld stations and were usually kind to visitors—but had not dreamed it might be Jeri. Dergano, in response to a feeler on Allan's part, had stated emphatically that the station manager always slept alone. Why a sudden passion for Allan Odegaard? She had seemed actually hostile at first, only gradually warming to a a semblance of cordiality. Could that have been a staged act, a psychological gambit to throw him off his guard? If she wanted to influence his decision . . . she had learned at the landing field that he could not be dominated. Fawning would be equally useless. But the gift of herself, after she had established that it was from nothing more than shared desire . . . he could be misjudging and insulting a lovely woman. Jeri, who looked normal and healthy, probably practiced continence here be-

cause even in this enlightened age men still tried to dominate their sleeping partners. If she felt lonely and frustrated, honestly needed to share with a man who would soon be leaving . . .

Jeri sensed his confusion and kissed him again, hard. Allan twisted his head away when their lips parted and then turned over and faced the wall. He couldn't take the chance. His aroused body throbbed with need and yearning. He ignored its demand and forced himself into unyielding stiffness.

She waited a moment, to see if his rejection was final, then got quietly out of bed, dressed in the darkness and left.

Next morning Tes led Allan back to her tribe without difficulty, confirming his suspicion that their seemingly aimless course was actually a tightly planned schedule. Allan stopped pretending to pick spices and settled down to an intensive study of the children. The ease with which they accepted him, and the fact that his preference for their company went unnoticed by the adults, made him wonder if the males had accepted him as Tes' mate, or her child. He noticed that an old Shambler, who suffered frequently from the attacks of trembling he had seen on his first meeting with one, started paying a mild courtship to Tes and was promptly rebuffed. The male gave up his suit without argument or attempted force. Their sexual drive was apparently as weak as that of an earthly gorilla. And those former inhabitants of the jungles of old Earth were propagated in zoos by artificial insemination.

Two hours after he started playing with the children, Allan felt certain that Jeri was right; they were far more intelligent than the adults. On the second day he organized some new games, and the ease with which they mastered them caused him to increase the complexity. The children, as if stimulated by the challenge, learned the harder games as fast as the simple ones. By the third day they had become so interested in what he was teaching them they had dropped all other nonessential activities. Allan found that he was enjoying his brief return to the teacher's role, and he was accumulating several meters of notes on his minicorder, but it was a slow and time-consuming process. And he had already been on Misery longer than he had wanted to stay. His services were more urgently needed elsewhere.

On the fourth day Allan saw a Shambler adult die, apparently of natural causes. One of the older females who was subject to frequent fits fell to the ground, jerking and kicking violently. Somehow the tribe seemed to sense this was the final attack, and four male adults gathered around her; the

tribal leader motioned for the others to move on. Allan chose to stay and watch. He swiftly discovered that the normally placid chieftain was going to treat him as he would any other rebellious child. The long fingers curled around the sharp bone, as one hand drew back for a slap. Then the tall male remembered Allan's unique status, or the ease with which the Earthman had killed the carnivore. His hand turned for a moment in the peculiar gesture that hid the ever-ready dagger. Allan hastily backed away, reaching for his laser, and the leader turned and shuffled after his people.

The woman on the ground continued to jerk and twitch, occasionally trying to crawl away. The males held her, and after a time she went into clonic convulsions and died in the middle of a violent spasm. The four attendants picked up her body and carried it as far into a patch of thick undergrowth as they could force their way, finally jamming it deeply into a mass of thorny brush. Then they hurried after the tribe.

Allan followed, somewhat sick from watching the female die, and slightly puzzled. Even the baboons, to whom he kept constantly comparing these humanoids, made more of a ceremony of death than that.

During that same afternoon, one of the larger adults who habitually led the way was suddenly caught by a heavy vine net dropped from overhead. His companions began frantically trying to free him but retreated when the weaver descended to his catch. Tes, who was nearby, turned and screamed to the armed Earthman in obvious appeal. Allan unstrapped his laser and ran for the trapped Shambler. The attacker was a huge insect, armed with vicious serrated mandibles and two long, jointed front limbs tipped with spikes. It had a round body supported by a circle of flexible legs that raised it two meters off the ground. As he drew near, Allan saw the deadly creature bend the stabbing arms and insert the sharp points into a cavity behind its head. They emerged covered with a wet and glistening green slime.

Allan stopped just ahead of Tes, well out of the carnivore's reach, and raised his weapon. Before he could aim, two long hands pushed hard against his back. To keep from falling he had to take three fast steps forward, and this put him within striking distance of the waiting enemy.

Allan took a voluntary fourth step and dove for the ground as the first sharp spike cut the air where his head had been. He hit, rolling, and brought up against the circle of legs, directly beneath a bulbous head. The predator scuttled backwards, poison-tipped

limbs rising. Allan lay flat on his back and brought up the laser. As the huge compound eyes found him again, he touched the firing stud and held the searing beam steady. It burned a hole deep into the tiny insect brain. The killer collapsed in a tangle of hairy legs.

Allan struggled to his feet, to find himself shaking, as usual. He had not consciously realized that the tree-dwelling climber could not see its own feet. Instinct had saved him again. He looked back at Tes. She was standing where he had left her, raw hatred on her usually blank face. The Earth-people's pet had just tried to kill him, in a manner that would reflect no blame on herself or the tribe.

The adults gathered around the dead enemy, grunting in excitement. Allan, who was rapidly recovering his equilibrium, turned away and motioned for Tes to accompany him. Her face had fallen back into its normal dumb placidity. She followed obediently. When they were some distance from the rest, Allan asked, "Why did you push me, Tes? *And don't pretend you can't understand speech!*"

The long face became animated again. She hesitated, fingers curling nervously around the deadly bones. Allan waited, holding the laser openly ready. She quieted after a moment and then turned partly away. When she spoke her voice was guttural and slow, but understandable. "I—I kill! All Earthmen die! They—they hurt Shamblers! White-milk bad! Earthmen go!"

Tes' vocabulary was rudimentary, but adequate for a simple conversation. Once the first barriers were broken she seemed almost eager to talk, as if proud of what she had learned from listening to the spice-plant personnel.

The rest of the tribe began to move away. The Earthman sat still, entranced. Tes became lost in her narrative, and Allan did not even remember putting his weapon away and leaving himself at the mercy of her long bones. When a darkening of the forest gloom indicated it was time to hunt shelter for the night, he was in possession of one of the strangest stories of his experience.

It must have been heartbreaking to a puzzled child, to find early in life that she possessed more reasoning ability than her parents. All around her she saw other children, her playmates, in the same predicament. Habits derived from instinct and custom kept the tribe alive, and the adults' size compelled obedience, but any child over five could outsmart his elders, and knew it. The young had a system of sounds and gestures more complex than those used by the mature Shamblers. All children learned before time-

of-the-change that their reasoning powers were a temporary gift, one that would fade swiftly after mating. They compared themselves to new-hatched babies, to the oldest adults, and discovered a set and definite pattern. A child was born knowing nothing, learned slowly, reached a peak just after sexual maturity, and started declining shortly afterwards. When an adult went into his final fit and died he was a walking idiot.

Tes had accepted her fate without question, having no reason to think the cycle odd. She took a mate shortly after puberty, but he was killed and eaten almost immediately. While she was grieving, her tribe was introduced to *sorba* milk, but the first dose almost killed her, and she would accept no more. The station personnel nursed her back to health, and she had lived with them ever since.

Tes still saw her people at frequent intervals. She had been forced to watch her generation go through the gradual change from reasoning beings to instinctual animals, dropping their more meaningful vocal sounds and elaborate gestures along the way. Tes remained unaffected, still able to reason, to think. The sickening knowledge that she alone could remember they had once been something more than they now were tore at her mind. She wondered if it was the elementary training received from the Earthpeople that made her different, and she tried working with some of the young adolescents. They learned quickly, but the knowledge faded soon after first-mating time. If a child did not mate, the power of reason disappeared anyway.

Allan asked if she had been responsible for the near-idiot Shamblers attacking station personnel. Tes admitted it without argument. The nonthinking adults were near death themselves but still responded to a strong command to attack, and she knew the ancient signals by which to drive them.

"Why?" asked Allan.

"*Sorba* milk bad. It slow big Shamblers. Eat not enough, make babies not enough. Kill humans, kill sorba. Tes . . . stay humans, be—be *good,* listen, learn, no talk in plant. In woods say words, try . . . *prac*-tiss! Jeri not know. I do bad tests. Act wrong, do wrong. Learn more, kill if no one know. Like try kill you."

Allan asked if she knew why he was on Misery, and when her answer was negative, he told her of his mission and what his decision might mean to her people. They started for the plant, which was close, and as they walked Allan told her something of Earth's long history of racial and species injustices, and how the World Council had organized the P.P. Corps to ensure fair dealing with more primitive life-forms. When

understanding swept across the now expressive face, he knew his life was no longer in danger.

Just before they reached the electric fence, Allan told Tes to behave normally while in the plant. He also asked her to bring the body of the next adult who died to the lab.

"You help Shamblers, Allan? Make *sorba* go?"

"I can't answer that now. You may be a mutant, a person completely different from the rest of your people." He hesitated, wishing he could promise her more, then said, "Get me that body as soon as you can."

Tes brought in an old adult the very next day. Allan, when he began his dissection, discovered it had been killed by a hard blow to the rear of the head.

The cracked skull was a good place to start. He peeled back the shattered bones to expose the parietal area and found himself staring at the bane of the Shamblers. He retched, turned away, forced his heaving stomach back to calmness, and proceeded with his work. It lasted far into the night. When he finally dragged himself off to a shower and bed, he had a tentative answer to the riddle of the Shamblers' strange growth cycle.

Next day Allan had Tes take him back to her tribe, and this time he carried sampling equipment. He worked in the woods for two days and at night took specimens of the soil in the Shambler sleeping glades. Early on the third day he returned to the station for more lab work. When he was satisfied, Allan asked Dergano to bring him three of the humanoids' long cots from the receiving room. Out of the next group of pickers he selected two adult males, one young and one old, and had them take their *sorba* in the lab. When they were deep in trance, he brought in a male child from the playroom. Allan ran several comparative tests on the three prone bodies, ignoring the inquisitive stares of the child. That afternoon he repeated the experiment with three females of the same ages, and when the results were identical, he made a few final notes into his minicorder and returned to the jungle for more fieldwork. He was acutely conscious that the days were slipping away on this comparatively unimportant planet, but he wanted to be absolutely certain that his hypothesis was correct.

Allan was bent over the shallow excavation he had just made in a sleeping glade, carefully extracting the small open-top box he had buried there two days earlier, when he heard a light footstep behind him. There was something distinctively human about the sound, and he carefully placed the four small objects he was holding

in the box and turned to greet his unexpected visitor. Without shock or seeming transition he found himself pitched forward on his face, black shadows beating at the edge of his mind. For a long moment he hovered on the brink of consciousness, slipping over and pulling back, and then his senses steadied somewhat, and the dizziness faded.

Allan resisted the inclination to straighten his bent neck and lay perfectly still, while his strength slowly returned. Someone was kneeling by his head; the right arm was pulled from beneath his chest and stretched out ahead of him. The prone man cautiously cracked his left eye, which was partially concealed by the grass. He was just in time to see a round, flat, almost transparent insect drop from a rough wooden box onto the back of his hand. Allan felt the impact of a slick, moist underside as wide as his palm; by a strong effort of will he kept the extended arm relaxed. The creature froze, and there was no sensation of a sting.

A short distance from his hand, almost hidden in the grass, Allan saw an odd object he finally recognized as a bootstocking. It had been packed with soil and tied closed above the heel. He had been hit with a weapon that left no external trace, and the transparent insect, whose color was already changing to match his hand, was obviously a killer he might easily have touched accidentally.

Allan opened both eyes without moving his head and managed a quick glimpse of the kneeling man's profile. It was Dergano.

The silent tableau endured for another minute, and then Dergano impatiently reached for Allan's arm near the shoulder, apparently planning to shake the extended hand and jar the insect into striking. As the fingers closed on his biceps Allan rolled backward, yanking his hand from beneath its slimy burden with all the speed he could muster. He came to a stop on his back, his right hand, which was functioning normally, already freeing his laser. Dergano, after a second of stunned indecision, was reaching for his own. Allan focused his weapon and released the safety. in time to shout a command, and the lean Earthman stopped with one hand on the strap.

"Hands high and show your back!" snapped Allan, without moving. Dergano hesitated, then slowly raised his arms and obeyed. Allan got to his feet and cautiously removed the man's weapon. When it was safely in his own vacant strap he said, "Turn around."

Dergano about-faced and lowered his arms without waiting for permission. "What now?" he asked coolly.

"Now we go back to the station." Allan gestured toward the

glade's narrow exit. As Dergano shrugged and turned toward it, Allan swiftly bent and retrieved the box he had dropped when struck. He checked its contents, then followed Dergano back to the main trail, keeping close enough to his captive's back to prevent a sudden leap sideways. This was only the second time in his career an Earthman had attempted to murder him. The authority he exercised as a Conscience was immense; in his field he could be overruled only by an act of the World Council. In addition, he held a commission as a commander in the Space Service, under the Inspector General's Office. On any world occupied by university terraforming teams or Earth's small but potent private enterprise system, he could assume command at will. Even admirals in the service, theoretically his superiors, treated a Conscience with respect. And very seldom did anyone affected by a decision do more than file a protest with the World Council. The penalties for overt action against a P.P. were severe, and the Space Service enforced them immediately.

The recreation lounge was deserted, but a few people in the corridors gazed wide-eyed as Allan marched Dergano toward Jeri's office. The big woman glanced up from a stack of forms on her locally made desk, as astonished as the rest, when the two men entered without knocking. Allan closed the door, motioning for Dergano to sit down. If Jeri was acting she was superb at it.

"Would you be kind enough to explain why you're holding that gun on my assistant, Conscience?" Jeri asked, frost in her tone.

"He tried to kill me," Allan said slowly, watching her face. "And he chose a method that would make it appear an accident, a bite on the hand by a deadly insect."

For the first time, Allan saw an expression of uncertainty appear on the woman's strong features. "Is that true? Why?" she asked Dergano.

The dark-faced man slumped low in his chair. Without looking at her, he said, "I saw you coming out of his room the other night."

Jeri paled slightly, then flushed. "You utter fool! You don't own—" she stopped, full lips pinched thin while she regained her control. More quietly, she went on, "We have no trial marriage contract, Dergano. Our agreement was to maintain discipline by keeping our arrangement a secret. I thought you could rise above possessive jealousy."

Allan felt a sharp pang of regret. He had indeed misjudged Jeri, and forfeited the chance for a short but pleasant affair. "He's lying anyway," he said aloud.

Dergano jerked erect in his chair, obviously jarred. "He at-

tempted murder to stop me from revealing what he somehow already knew, that the Shamblers are an intelligent species," Allan continued as Jeri turned toward him in amazement. "Now he's attempting to make his motive seem personal to keep from implicating you. The heroic sacrifice is unnecessary, Dergano. I was already reasonably certain you were acting on your own."

Jeri jumped to her feet and hurried around the desk, her executive poise now completely gone. The strong face was as red as her hair, and for a moment Allan thought she might clench her large hand and hit him. Instead she began to pace the room, and her voice had a biting edge when she finally asked, "Would you please tell me how the Shamblers could be intelligent and my tests completely wrong?"

"Your tests were correct, as far as they went," Allan answered. "I am rating them at what they will be when a physical disability that impairs their mental functions is removed.

She could not keep the interest off her face. Allan went on, "A Shambler is born with something less than human potential. This increases steadily until puberty, as you have noticed. At sexual maturity there is a distinct change in body metabolism, along with the more obvious physiological changes. All body tissues convert from an alkaline condition to a slightly acid one. This makes it possible for a certain parasitic worm to live within the Shambler's body. Sometime within a few months after the change, a newly hatched larva enters a sleeping adolescent, probably through the anus. It makes its way to the brain, where it anchors and starts eating tissue and blood. It grows steadily for years, while it eats a large open space for itself. During this time the adult slowly deteriorates, and when the damage becomes irreversible, in what should be his late middle-age, he dies. The mature worm then leaves the body by dissolving a doorway into the ear and crawling out. It goes into a short metamorphosis, emerges as a flying insect and seeks a mate. The impregnated female finds a sleeping glade by scent, lays four or five large eggs in the grass to start the cycle again, and then dies."

Jeri stopped pacing, and there was horror and revulsion on her face. "I've learned two facts I think will eradicate it," Allan continued. "One: they are able to live only in their present host. All other animal tissue I've been able to examine is too alkaline for them. Apparently the worm is a fairly recent mutation from some older form not inimical to the Shamblers, since it's destroying the species at a fairly rapid rate. Two: the worm can't crawl through soil.

I caught the one in the adult whose skull I opened just as it reached the ear, and buried it and three eggs just starting to hatch." He showed Jeri the open-top box he had brought from the glade. "All of them died after struggling upward only a few centimeters. The easiest way to eliminate the parasite is to teach the Shamblers—"

"To bury their dead!" Jeri interrupted him. Allan found himself able to smile for the first time in several hours. "Correct. With the Shamblers it can serve a useful purpose. The parasite's life-cycle can be broken at its weakest link; with no other host available it should die out shortly."

"And just how do you propose to start this new custom?" Dergano asked sullenly.

"There's only one practical way. I am going to recommend that your company be authorized to establish at least four more plants here, with the intention of getting every adult Shambler on the planet under the influence of *sorba*." He told them briefly about the intelligence of Tes, who had not been infected due to living in the station, and her mistaken belief that *sorba* milk was the cause of Shambler sluggishness. "Each of your stations will bring in a cultural anthropologist who will establish the burial custom by rewarding the action with free *sorba*. Of course you'll have to abandon the planet when the worm species dies, but that's far in the future."

Dergano looked stricken. "Then . . . it was all for nothing? I ruined my career for . . . ?"

"Conscience, surely . . ." Jeri held out a hand to Allan in hopeful appeal, and for the first time since he had known her, she seemed softly and appealingly feminine.

"Your lover kept quiet about the worm because he was afraid your ethics would overcome your business instincts if you knew," Allan told her quietly. "I'm sure he was right. I don't know if he was thinking of his profit percentage or you, but it doesn't matter. The fact that he tried to murder a Conscience can't be excused. He will have to stand trial in a Space Service court. I'm going to send for the shuttle now."

Dergano leaned forward and buried his face in his hands. Allan turned and walked out. He felt drained, tired and old beyond his years.

In the communications room he found a message waiting him from the P.P. dispatcher on Earth. The mobile trees of Epsilon Indi Six had attacked in force, killing several more people and placing one new town under virtual siege. The local Space Service administrator had declared the trees intelligent and ordered the colonists to evacuate. The indignant settlers were waiting for his decision. ◀

Here is a poignant fantasy that extrapolates the idea of measuring the quality of life by negative comparison, a practice that may be a form of spiritual disease, but is hardly uncommon. The story recalls to us a character in a Kurt Vonnegut novel, a former hobo who dies as a prisoner of war under unspeakably horrible conditions. His last words before expiring are these: "I been in worse places than this; this ain't so bad."

NEXT

by Gary Jennings

MR. McGRAW TURNED SIXTY ON Sunday, but he didn't realize how much he hated being it until he ran into Miss Bell on Monday.

He was already feeling less than blithe that Monday, as he drove his big Pontiac northward through the twilight along a Mexican desert road. After all the planning, the anticipation, the Berlitz lessons, the trip had been a fiasco. Mrs. McGraw had loathed Mexico at first sight; she'd been sure the drinking water would "get" her, and so of course it had; she'd cut the trip short, flown directly home from Mexico City, and left him to drive back alone. Alone in the car, on this lonely road where he'd neither met nor passed another vehicle in miles, Mr. McGraw felt like the only living creature in all this gray wasteland of sand and cactus.

He slowed the Pontiac as he came to an immense pile of dirt dumped onto one lane of the road, with a sign:

Tramo en Reparacion
SOLO CARRIL

The pile turned out to be a long bank of dirt, filling that lane for as far ahead as he could see, though there were no workmen or machines in evidence. For a while he drove slowly along his single, constricted lane. But, encountering no obstacles, he gradually, unconsciously accelerated up to sixty or so.

His meeting with Miss Bell seemed hardly a happy one in the beginning. He ran into her, literally, when her car appeared suddenly from around a bend of the high dirt bank. Mr. McGraw

ground his brake pedal into the floorboard, and the tires clawed at the macadam, but still the two cars collided head on.

Wrenched by inertia from its magnetic grip on the Pontiac's rear seat ledge, a six-inch plastic figurine—one of Mrs. McGraw's souvenirs, a replica of Guanajuato's *Cristo Rey de la Paz*—continued traveling and clipped Mr. McGraw painfully behind the right ear. He had to sit, shaking his head for a minute before he could get out of the car. By the time he did, the other driver—a young and pretty, American-looking girl—was already ruefully examining the mangled tangle of hoods and bumpers.

Mr. McGraw felt sheepish about facing her, but, oh well, he thought it could have been a gorilla truck-driver. "My fault, I'm afraid," he said. "Driving too fast for conditions."

The girl—Miss Bell, as she introduced herself—was a surprisingly good sport about it. "All that really matters is what do we do now?" And she looked up at him with expectant, trusting eyes the color of black coffee.

Mr. McGraw had never so much as glanced beneath his Pontiac's hood, except over the shoulder of a mechanic. But even he could see now that the car was inoperable. The radiator was mashed back against the fan, and that against the engine block; fluids of various viscosities were leaking all over the road. Mr. McGraw sighed and turned to inspect the other car. It was one of those low-slung foreign sportsters that he never could tell apart, and either it was better built than his or it contained less to damage. Except for the crumpled prow, he couldn't see much wrong. He said so, and suggested that Miss Bell try to restart it. She did, but not even the starter motor turned over.

Mr. McGraw rubbed his throbbing head, and looked helplessly up and down the road. "I can't understand why there's no other traffic at all."

"This is the new Victoria shortcut," said Miss Bell. "Specially laid out for tourists going to and from the border, so the trucks and the *paisanos* stay off it. And not many tourists know about it yet, so they do, too."

"There's something they call the Green Fleet," mused Mr. McGraw. "Those *turismo* repair trucks that cruise around looking for cars in trouble . . ."

Briskly efficient, Miss Bell was already studying the paper folder explaining the *Auxilio Turistico.* She scanned the list of scheduled patrols and shook her pretty head. "If this is right, they've already made their last pass along this stretch today. And tomorrow is Tuesday, when all their trucks lay up for maintenance, so they won't be out again until after midday."

"Damn," said Mr. McGraw. "I suppose I could sit out here all night, but you can't." In search of inspiration, he stuck his aching head under the hood of the girl's car again, and after a moment said, "Aha! Here's what's wrong. Your battery is cracked wide open. Drained empty."

"Maybe we could switch," said Miss Bell, joining him. But one look was enough to scotch that idea. The two cars were so intimately conjoined that their batteries were practically side by side, and it was obvious that Mr. McGraw's was far too big to fit into the space hers occupied.

"And there's no way to carry it on the outside of your car," said Mr. McGraw, looking at the sportster's sleek fairing. "But it might just serve to get yours started."

"And mine would keep running, wouldn't it, once it was started? Then you could ride with me to the next town and get a tow truck."

Mr. McGraw nodded absently, peering at both batteries in the fast-growing darkness. "Yours is six volt and mine's twelve." He really had no notion what the difference meant, but he added, "I wouldn't want to burn out your whole electrical system." He thought for a minute. "I know. I've got some piano wire around some packages in the trunk. I'll use that for the hookup. If there's too much juice, *it* ought to melt before any of the wires in your car do."

Miss Bell watched with an open admiration that Mr. McGraw enjoyed—particularly considering that she had every right to be railing at him—while he tediously peeled off two single strands of the piano wire and joined her engine's cables to his battery's terminals.

"Now try it," he said.

The instant Miss Bell turned her ignition key the two thin filaments of wire glowed red and parted. Mr. McGraw tried again—working now by flashlight—with three, then five strands of wire at a time. During each experiment, certain that he was about to be galvanized himself, he had to steel himself not to flinch and thereby diminish Miss Bell's encouraging admiration. Finally, with seven-strand twists of wire between the cars, the improvised jump-cables stayed intact, and Miss Bell's engine thrummed into life.

The girl clapped her hands, then laid one of them gratefully on Mr. McGraw's arm and murmured, "That was masterful."

They let the engine run long enough to make sure that it would. Then, under Mr. McGraw's direction, Miss Bell carefully backed her car away from its embrace with the Pontiac. This required Mr. McGraw's occasional prying with a tire iron, and entailed hair-raising screeches of agonized metal, while various small bits of both vehicles fell off in the process. But when the maneuver was completed, they

found with relief that none of the little car's damage interfered with its steering or braking. Except for the fact that it had only one headlight left—and that slightly askew—the car seemed safely road worthy.

Its engine hadn't faltered during the disengagement but, for future insurance, Mr. McGraw unmounted the Pontiac's battery and wedged it into the space behind her car's two seats. "My, you're strong," said Miss Bell. "That thing must weigh a ton." Mr. McGraw thought it did, too, but he managed manfully not to grunt during the transfer nor wheeze afterward.

Now Mr. McGraw began to notice a disturbing thing. His headache was ebbing away, but it seemed to have been replaced by brief fugues of amnesia interrupting his consciousness. He wondered: a mild concussion? The effect was that of living in a series of movie scenes, between flickers of abrupt cuts.

Flicker. And here he was, cramped into a bucket seat of Miss Bell's car, she at the wheel, moving southward again, away from the site of the crash. Mr. McGraw observed, with surprise but approval, that he had thought to leave warning markers for other motorists: some large rocks—presumably he had rolled them down from the *reparacion* dirt pile—ranged across the road a hundred yards fore and aft of his abandoned Pontiac.

Miss Bell shifted upward through the gears, keeping a close watch on the tachometer and being very careful with her clutch-work. The night was full on them by now, and the single headlamp wasn't really adequate, so she maintained a cautious speed. This meant down-shifting frequently, to avoid even the imminence of a stall. But the business of driving seemed second nature to her; she turned her attention to Mr. McGraw.

"That was really ingenious," she said, "the way you got us started. Obviously you're an expert. But you look too distinguished to be even a master mechanic."

"Anything but," Mr. McGraw said modestly, though he glowed. "I don't know the first thing about machinery."

"Well, you've certainly got the technician's touch," she persisted. "Maybe your work has been all in the field of theory? Let me guess. You're an inventor. A scientist? An engineer?"

"No, no, no," said Mr. McGraw, with a self-deprecating smile. "Those things take talent. Training. I haven't got either."

"Then you've got the instinct," Miss Bell said staunchly. "And that's the really vital spark. If you aren't a scientist or an astronaut, you should have been."

Maybe I should, thought Mr. McGraw. In retrospect his fumbling, fluky success at car-starting

appeared to him the revelation of a deep-seated facility he had never recognized. Sixty years old yesterday, he reminded himself. Have I, all that time, denied expression to an ability I didn't know I had?

"If you're not Tom Edison or Wernher von Braun," said Miss Bell, "what do you do?"

"I'm retired," said Mr. McGraw. "Couple years ago. Do you know what the Mexican word for 'retired' is? *Jubilado.*" He spelled it for her. "Sounds just jolly and whoopee, doesn't it? Not an entirely accurate description of retirement, maybe, but it's a nice thought."

"What are you retired from?"

"Sales management. In food sales most of my life."

"The executive end, you mean."

"Oh, sure. I didn't peddle door to door. Heh, heh." He let it go at that. In other circumstances, he would be only too eager to expatiate on his life's work, but somehow now he felt it would fall short of this girl's admiring expectations. "So now I'm *jubilado.* And what do you do, Miss Bell?"

"I'm a receptionist."

"Down here on vacation, eh?"

It occurred to Mr. McGraw that she must be one hell of a good receptionist, to afford a car like this and a holiday in Mexico. But then, she was certainly decorative enough to be a valuable asset in any company's reception room. And if her driving was any indication, she was efficient as well.

Instead of elaborating further on either her job or her vacation, Miss Bell said, "What is it, anyway—the next town we come to? The map's in the glove compartment."

"Huizache was the last one I remember passing through," he said, as he rummaged for the map. "But it wasn't any metrop—" He had hauled out a small but lethal-looking pistol. "Really, Miss Bell, you can't think that Mexico is still full of *bandidos*. Or do you carry this," he suggested roguishly, "to fend off the *lobos*?"

She tossed her warm-dark hair and laughed. "That's a good one! The first Mexican wolf I meet, I must remember to call him a *lobo,* and squelch him but good. That's marvelous."

"Oh, it wasn't all that funny," said Mr. McGraw, though he basked in her appreciation. Gingerly, he replaced the pistol in the dashboard compartment.

"You *are* a witty man, Mr. McGraw. You should have been a humorist instead of a businessman."

Flicker. And they were driving through a canyon, rounding a blind curve, into a flock of shabby gray sheep crossing the road. Miss Bell braked to a stop without hitting any but not before the car was in the middle of them. The sheep scattered, bawling, and one ladder-legged lamb fell down in the excitement. The flock's six or seven herders glowered at the car, then slowly approached it, while the

sheep disappeared into the canyon rocks like dew evaporating.

The shepherds all looked evilly alike—unkempt and unshaven—except for one who must have been the boss; he looked meaner than the rest. He rode grandly on a burro and wore a vast sombrero gleaming with decorative dabs of radiator paint. The men on foot gathered in a silent semicircle around Mr. McGraw's side of the car. The man in the aluminum hat slid off his burro, picked up the fallen, squawling lamb, and carried it to Miss Bell's window, mournfully, as if it had been mortally injured.

"Here's where we get euchred out of a couple hundred pesos," said Mr. McGraw, a little amused by the performance.

But then the shepherd got a close look at Miss Bell, and his mournfulness turned into a toothy leer. He glanced across her at Mr. McGraw and hissed at him, *"Puest' que tu has tropeza'o con mi corderita, yo debo tropezar con la tuya."* Mr. McGraw repeated this silently to himself, and made of it: "Since you've (somethinged) my little ewe-lamb, I ought to (something) yours."

At that, the Mexican tried Miss Bell's door latch, as if to get on with the somethinging. Miss Bell squeaked in fright. Without hesitation, Mr. McGraw thumbed the button of the glove compartment and climbed out of the car, pistol in hand. The herders loitering on that side widened their semicircle respectfully. Mr. McGraw pointed the gun across the hood, at the man in the painted sombrero.

This isn't me, Mr. McGraw was thinking, as he said in a quaver, *"Vete* the hell *afuera de aqui!"*

The Mexican eyed the pistol contemptuously, muttered, *"Chinga'o viejo verde . . ."* and began menacingly to stalk around the front of the car. Mr. McGraw, too, looked down at the gun and saw that it was trembling shamefully. He resisted the impulse to wrap both fists around the weapon, and instead squeezed his gun hand securely steady. He didn't intend it, but the squeezing included his trigger finger, and the gun went off with an incredible noise. The Mexican fell on his face, as suddenly as if his ankles had been lassoed from behind.

Mr. McGraw stood paralyzed by surprise. In the car, Miss Bell was saying, "Oo-oooh . . ." So was the man on the ground. The others had miraculously vanished, like the sheep, into the rocks. Then the victim slowly sat up, wincingly fondled one of his feet, and Mr. McGraw breathed again.

"Mi pobre pierna," wailed the Mexican. *"Me vuelvo cojo . . . ay, ay-ay, ay . . ."*

"You can still *subir el burro,"* said Mr. McGraw. "Get on it and *vete afuera de aqui."*

Groaning, the shepherd hauled

himself onto the burro's rump. It clip-clopped off into the rocks, the rider swaying dizzily, shaking his fist and haranguing Mr. McGraw with Spanish he'd never heard at Berlitz.

"Golly," said Miss Bell in a little girl voice. "What would I have done without you?" She gazed up at him from the car, awe now mixed with her admiration.

Mr. McGraw casually tossed the pistol back into the compartment. He seemed to move very languidly, all cool and collected. Actually, he was forcing his movements to be slow and even, because otherwise he'd have been quaking in every limb.

"I have to keep upgrading you," said Miss Bell. "If I didn't know better, I'd say you're a retired general. An ex-Texas Ranger. A cowboy movie star from before my time."

"I haven't had much experience," Mr. McGraw said offhandedly. "First time I ever fired a gun."

"Don't play the milquetoast. That was heroic. And so—so chillingly efficient. One shot. Bang. If that was your first time, I'd sure like to see the next."

Truthfully, I didn't do too badly, thought Mr. McGraw with real elation. "For an aging man," his daemon added, and the elation faded. But what *couldn't* I have done at forty? At thirty? He furtively ogled young Miss Bell. At twenty-five?

As if she had overheard him, Miss Bell said, "The rescued maiden thanks her shining knight," and kissed him gently on the lips.

Flicker. And now Mr. McGraw was behind the wheel, learning to drive a sports car for the first time in his life. Miss Bell was saying, ". . . just make sure the tach needle doesn't drop below the red line, or we may have to do that battery business all over again. The rest of it—the clutching and shifting—is only a matter of reflexes and practice."

Mr. McGraw forbore from mentioning that he'd been driving cars with gearshifts and clutch pedals long before either Miss Bell or the automatic transmission were born. Instead, he said, "I guess my reflexes are still holding up. You and I wouldn't be here right now if they weren't. I mean, if I had hit the brake just a tenth of a second later, back there when we first met, that would have been *it*. Goodnight all."

"Oh, I know your reflexes," said the girl, laughing merrily. "Quick-Draw McGraw."

Mr. McGraw laughed with her. By damn, he was feeling good. Here his wife had (you might say) deserted him; he'd left five thousand dollars worth of automobile junked in the Mexican boondocks; probably the lout he had pinked with the gun was sicking the *federales* on him; and, by damn, he felt good.

"Tell me some more about the work you used to do," said Miss Bell, and Mr. McGraw stopped feeling so good.

"Food sales management," he murmured. "I was in biscuits the last twenty-odd years."

Small pause. Then, "Biscuits?" Miss Bell said quizzically. "That's cookies?"

"We-ell, yes, they include cookies."

This was awful. Mr. McGraw was well aware that his heroic image had just tottered on its pedestal and he hastened to buttress it with a brag. "I'm the guy that first put kibbles in packages."

"Oh, are you? Well, I don't—I mean, what are kibbles?"

"*Kibbles*. Those little dog biscuits."

Miss Bell made some sort of a noise.

"You wouldn't remember, but kibbles used to be just ladled out of a burlap sack on the floor in front of the counter. In a grocery store, you know. Didn't sell many that way, you bet. Anyhow, in those days people mostly fed their dogs table scraps. So I suggested let's put the dog biscuits in packages. Get them up there on the shelf. Nice bright packages, picture of a dog on them, eating the kibbles."

"Gee," the girl said faintly.

"Well, it wasn't *that* great an idea," said Mr. McGraw, as if he had been tumultuously applauded. "But it was the start of something big. The packages got people thinking 'dog food' instead of 'table scraps.' The market boomed, the products proliferated. Dog food in cans, cat food, frozen pet foods. Do you know—today there's more pet food sold in America than all the soft drinks combined! Would you believe it?"

"That's simply fantastic."

"And my packaged kibbles started it all. But what I wish . . ." Here, pathetically, Mr. McGraw offered up the boffo tag line that had convulsed any number of convention audiences: "I'd be a millionaire this minute—if only I could have thought of some way to merchandise all the table scraps that have been thrown away since!"

He was chuckling before he finished it, and the girl laughed too, on cue.

There then ensued a long and dismal silence, while the car bored on through the night.

Why, oh why—Mr. McGraw beseeched the gods, the fates, the past—couldn't I have been an Edison or an astronaut or even a silly movie cowboy? I had the makings. This girl saw that I had them all. Strong, she said I was, and I was once. I had the insight and the instinct, the sharp reflexes, the cool nerve in a crisis. Even wit, she said I had. What did I do with what I was? Sixty years old yesterday, and in all that time—

"It's getting terribly late," said Miss Bell.

"These must be the lights of Huizache up ahead," said Mr. McGraw.

"I doubt that you'll roust out a tow truck at this hour," she said. "And this has been a real bruiser of a day. Why don't we settle for the first motel we can find? Get a good night's sleep and tackle the rest of the problems in the morning."

Flicker. And Mr. McGraw was trudging back across the motel's graveled entranceway to report to Miss Bell, who had waited in the car.

"More problems," he said. "This is the only lodging place in the neighborhood. The only one between here and Mexico City, to hear the proprietor tell it. And he's got exactly one room left. He kept saying *matrimonio,* and I can't convince him that we're not. But surely the room's got twin beds, so maybe we could arrange something respectable with a curtain or something. Do you want to look at it?"

Miss Bell got out of the car, grinning mischievously. "You're not very hip to colloquial Spanish," she said. "In the motel context, *matrimonio* doesn't mean exactly what it sounds like."

As the proprietor switched on the room's single light bulb for them, the girl pointed and said, still grinning, "See? That's what *matrimonio* means—a double bed."

Flicker. And Mr. McGraw was doing things that he had never in his unlikeliest adolescent dreams dreamt of doing, things that he'd never thought he could do, that he'd never suspected could *be* done.

"Oh, lovely!" gasped the girl. She said other encouraging things, all of which implied that if he was this great a lover now, what must he have been in his prime? And of course her responses made him just that much better. Mr. McGraw thought briefly of his wife, of what Mrs. McGraw's likely responses would be to these particular stimuli. He might just as well have dashed a bucket of cold water onto his own bare back.

"Oh, dear," said Miss Bell.

"Oh, damn!" said Mr. McGraw.

After a moment, the girl whispered consolingly, "Don't fret about it, my dear shining knight. The kind of day we've put in would have fatigued anybody. Maybe after you've had some sleep . . ."

But Mr. McGraw lay awake long after she was sleeping soundly. Petered out, he thought savagely. Great cliche. There could be no better expression for it.

Of all the delights he realized now that had bypassed him in his sixty years—fame, fun, fortune, flamboyance—this was the most hurtful. Maybe he would never have missed it if he'd never known about it. But to discover it now, too late . . . He turned and looked at the sleeping girl's

lovely, tranquil face, and thought another cliche: where have you been all my life? Where has everything been all my life? Where have *I* been all my life?

Flicker. And they were breakfasting together, on an exquisitely decorated terrace, overlooking a lake that Mr. McGraw would have sworn couldn't exist in this desert part of the country. Its waters lapped gently at the base of their terrace wall, and black swans glided across its surface, serenely admiring their unruffled reflections. In the sunlight all about the table there hung or hovered exotic birds, butterflies, bougainvillaea—everything bright and beautiful—but Mr. McGraw's morning coffee had not yet had time to mellow his morning-after mood.

He poked a fork at the remnant of papaya on his plate, and said bleakly, "Table scraps."

Miss Bell laughed and indicated the crumbs of her *pan dulce.* "Kibbles."

"Packaged," said Mr. McGraw. "By God, that describes everything I've ever done or been."

The girl said boldly, "It wasn't much of a life, was it?"

Mr. McGraw looked up from his table scraps, surprised. He shook his head. "No. No, it wasn't."

"Be glad, then. It's over."

The lake waters began to swirl, and then to recede with a soft gurgle, as if they were going down a drain somewhere. Mr. McGraw stared at the lake, then at the girl.

She said, "You *were* a tenth of a second too late. When you hit the brake, back there where you crashed."

A crew of workmen appeared from somewhere and began to dismantle everything around them.

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Mr. McGraw put a hand to his head, behind the right ear. It still hurt. He thought back, and realized that he didn't require any convincing.

"But—everything that's happened since?" he asked.

"It's always done that way—or some way—to break it to you gently, so to speak. Once you're made aware how little you had before, how drab it was, then whatever comes next, *whatever* it is, won't seem so fearsome by comparison."

The workmen had packed off all the bright and beautiful things, and were now rolling up the gold-dusted blue sky.

"But surely," said Mr. McGraw, "it can't have been little and drab for everybody. The great men, the heroes, the lovers . . ."

"Very nearly everybody. You'd be surprised."

With Mexico dismantled and gone, what was left was an office, and the breakfast table between them had become a handsome desk, with nothing on it but a telephone.

"Just what does come next?" Mr. McGraw asked huskily.

Miss Bell smiled, picked up the phone and said into it, "Mr. McGraw is waiting in Reception."

"Can you tell me this much?" he blurted. "Do I go—er—up or down?"

"Through the door on the right," she said brightly, gesturing with the telephone. "Personnel will see you now."

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THE ILLUSTRATED MAN

Two drifters, one young and gentle, one old and bitter, stop at opposite sides of a lake to take a swim in the altogether. After a lot of footage devoted to skin with, and skin without tattoos, the titles come on: Rod Steiger, Claire Bloom, and Robert Drivas will appear in a film version of Ray Bradbury's *The Illustrated Man,* directed by Jack Smight. Titles over, the drifters, buttoned to the neck, meet. Steiger reveals his tattoos—pardon me, skin illustrations—and sits down to tell his friend how he got them, amidst flashbacks in which Claire Bloom seduces him into her shack and inscribes the pictures on Steiger's rather expansive body. Three of the illustrations prompt the young drifter into reveries of his own, and we have short film versions of Bradbury's tales, *The Veldt, The Long Rain,* and what I assume is a sort of miss-directed (pun intentional) version of *The Last Night of the World.*

Go without preconceptions, and you will probably enjoy the film. There are lots of different visual textures: a verdant, green/gold/dust stretch of Bradbury-type America; a stunningly chill white plastic dwelling to house the macabre playroom in *The Veldt;* a very messy and artificial looking rain forest; and a silk tent that pastell lights play through.

It's Steiger's film. Robert Drivas can't really compete. Steiger's freshness of inflection and gesture, his tiny externalisations of the internal bring all his characters marvelously alive. In the scenes between Steiger and Drivas, one is aware of an extraordinary actor working against a fair one. In the scenes with Bloom, (who can compete) two very sketchily drawn, fantastical psychotics (if one stops to think about it) become totally real.

The film has taken the intriguing conceit Bradbury used for prologue and epilogue to his short story collection and made it the meat of the film. It doesn't bear up under the dramatic weight the writer and director have tried to load on it, but it's nice to look at. Film remains, essentially, a camera looking at things. If the things and the way of looking are interesting, then you have an interesting film. This struck me as an interesting film, but often in spite of the plot(s).

Enjoyable as I found it, I would like to see something more

than *The Illustrated Man* in an SF film, something more, even, than *2001*. In the early fifties, written SF got over the idea of seeing itself mainly as a vehicle for putting down the future. The recent rash of popular SF films from *Planet of the Apes* to *2001* have all had the implicit message: the technical/rational/clearly-observed must invariably be equated with the dehumanized/destructive/evil. It casts its shadow over even such a delightful piece of froth as *Barbarella.* I am waiting for SF films to catch up with what Disch, Zelazny, or Niven are writing today. I have seen many verbal representations of what I want; now I would like to see a visual one: an envisioned future where, perhaps what we think of as our humanity may have been damped in some areas, yet where others have been opened up and developed beyond that which is conceivable now; a future with its own tragedies and comedies, its own color, life, adventure, a future where the problems are something more than a disguised fundamentalist's warning for today. That's when SF films will truly have caught up with what's being done on paper now. And what will the new authors be writing then . . . ?

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The subject of discussion at the club was secret societies: the Mafia, the Carbonari, the Black Hand, and the Chinese secret societies, which everyone agreed were the oldest. "With one exception, that is," said Brigadier Donald Ffellowes, and thereby hangs another of the Brigadier's strange and fascinating tales.

FRATERNITY BROTHER

by Sterling E. Lanier

WE HAD GOT OURSELVES ON the subject of secret societies one day at the club, although how exactly I forget.

The Carbonari, the Black Hand, the Illuminati, Rosicrucians (the real ones, not the modern newspaper ad people), all had been argued over. From them, we had gone on to the Leopard and Hyena societies of Africa, the Thugs of Nineteenth-Century India (a case was made, by the way, for their continued existence) and the various Chinese secret societies, of which the tongs are but a part.

We ended up with the medieval German *Vehmgericht*, the recent Balkan murder groups such as IMRO, the Inner Macedonian Revolutionary Organization, and of course, the Ku Klux Klan.

With the latter, it was agreed we were approaching political parties too closely, which were not really the same thing at all. The discussion began to peter out into an argument about continental European Freemasonry, particularly so-called Grand Orient lodges, and whether or not the South and Central American lodges were still connected with them.

I didn't even know Brigadier Ffellowes, late of Her Majesty's forces, was in the club until he got up and came over. He'd been sitting in an alcove of the

library behind us, reading the London *Times*, and had overheard us talking.

"I've heard," he said quietly, in a pause in the conversation, "that every member of the Mexican Cabinet still must be a Grand Orient Mason, in order to prove that he will make no later concessions to the Roman Church. Mexico is the only Latin country to have disestablished the church, severed it from the state, you know, and Rome is still violently opposed to Freemasonry."

"What we were really after," I said, "was the origin of secret societies and fraternities, which are the oldest still going, and when they started."

He looked thoughtful, his ruddy, smooth-shaven face turned to the window. "Well, the Masons are pretty old, certainly," he said at length.

"Their early periods are somewhat confused, but they run in a continuous line from at least 1400 and probably a good deal earlier. There are records in the British Museum. The chaps who were sent to England from the Continent to build our cathedrals seem to have been some kind of Masons, I believe, but the Craft died out there until we re-introduced it, beginning with the formation of the first British Grand Lodge in 1717."

"Are you a Mason?" I asked.

"Not at all," he said quickly. "This is all a matter of public record. I'm giving away no one's secrets, I assure you. But you know, the Masons are not really competitors for your early date.

"The Chinese secret societies you mentioned go back to the Han dynasty at least. That's 206 B.C., so you see they have a long lead on the Masons. Confucius was a secret society member, and so was Mencius and probably Lao-tze as well."

"What about the Near East?" said someone else. "Do any modern groups come down from Babylon or Sumer? What about ancient Egypt?"

"Yeah, and what about the Mafia?" came another question. "Aren't they pretty damned old?"

"I say, not so fast," said Ffellowes. He sat down in a vacant chair and took up the thread of his lecture again.

"Near Eastern societies are all relatively pretty modern, like the Arab Brotherhood types who are always trying to do Nasser in. They're usually religious and semi-mystical, like old Ibn Saud's Wahabis, who are sort of Moslem monks, really. But very few, if any, date from earlier than six or seven hundred A.D.

"The sect of the Assassins is gone in its original sense, although a few villages in northern Persia call themselves that, I think.

"And finally, the Mafia, al-

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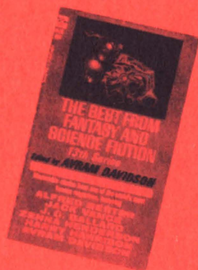

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though nasty, probably goes back to around 1700 in Sicily, its place of origin, and so isn't really very old at all."

There was a silence while we all tried to think of any group we might have missed, but none of us could.

"That means, then, that the Chinese are the oldest?" I finally said.

Ffellowes was now looking vacantly out of the window at the evening traffic and appeared not to hear me, so I repeated my question.

"I do beg your pardon," he said, coming back to earth. "What did you say?"

For the third time I asked if the Chinese had the oldest secret societies.

"Yes, I think so," said the brigadier, "with one exception, that is. Yes, with one exception."

There was something almost teasing in the tone of his voice, although his face was as expressionless as ever. But I knew and so did the others, that he had sprung a trap on us and was waiting for a question.

I couldn't resist saying, not maliciously, but for fun, "I suppose you're the only guy who knows the exception?"

His blue eyes twinkled for a second, but his face remained immobile.

"I don't know how you guessed it, but that's so. As a matter of fact, there's a story connected."

There was a scraping of chairs as we closed in around him. His stories were like that. When we were settled, he began in his flat, clipped tones.

"In the spring of 1939, I went, for a vacation of two weeks, to a place in the Spanish Pyrenees. It's a very small place and its name will not appear in my story. Lovely clean air and pine-clad mountains.

"My hobby, or one of them, is bird-watching, and it's a grand area for birds. I saw the short-toed eagle my first day out, and all sorts of rare species nested there. I was staying at a little mountain village inn, and except for a few scattered cottages, this tiny hamlet of some hundred-odd souls was the only inhabited place for miles.

"The ghastly havoc of the Civil War was only just over, of course, but I was in such a remote area that even that had had very little visible effect. The people were very poor and life was hard, but that had always been the case.

"They were interesting people. They were Basques, but not the big, burly seamen one finds around Bilbao and on the Asturian coast. This was a shorter, darker race, very curt in speech, and impassive in appearance. Mind you, they were kind and gentle as well, but they had a great capacity for minding their own business.

"Now I speak a little Basque.

It's a hard tongue to grasp, but I've lived in northern Spain at various times and I can make myself understood. As most of you know, I'm sure (this was flattery, pure and simple), the Basque language has no relatives in any other tongue in the world. This is one reason it's so hard to learn.

"And it's a funny language in other ways. All the words for cutting implements, such as scissors or knives, mean 'the stone which does such and such', when translated literally. As I say, an odd speeck."

He leaned back in his chair, looking up at the ceiling as if to marshal his thoughts.

"When I said that there was no trace of the Civil War in the village, I overlooked something. Three members of Franco's *Guardia Civil,* his state police, were stationed there. To be precise, two privates and a sergeant.

"The privates were decent enough sorts, but the sergeant was 'something else', as you say over here. He was a Navarrese city tough named Sandoval, who hated his exile to the mountains and was damned well going to take it out on someone.

"He tried to bully me at first, and when that didn't work, tried to cadge drinks and use me as a wailing wall. I soon choked him that tack and as a result he hated me like poison. But then, he hated everyone.

"The Spanish Government at this time was still flushing out enemies all over the country. They saw Communists under every rug and were especially suspicious of the Basques and the Catalans, since the two large minorities had been pillars of the late, unhappy Republic. Hence the presence of the sergeant and his men, even in this remote backwater of a village.

"When the locals realized that I could speak Basque and disliked Sandoval as much as they did, they began to warm up to me. Children would sometimes stop me on the street to tell me about an ibex they had seen or to inquire which birds interested me the most. And the adults smiled when they said 'Good Morning.'

"The patriarch and ruler of the village was one Macario Urrutia, the innkeeper in fact. There was no chapel and the children had no school save for one twelve miles away, which few attended. Thus the school teacher and the priest, traditional authorities of the village scene, were absent and the elderly innkeeper ruled instead.

"Perhaps he would have done so anyway. He was a squat, powerful man, clean-shaven with very broad cheekbones and almond-shaped eyes of a dark brown. I imagine he was around sixty, though I don't know: he could

have been eighty, I suppose. The people live to a great age in this area. Certainly he was very strong and agile as well. I have seen him lift a great barrel of wine as if it were nothing, and as for his agility—well, that comes later.

"Even Sandoval rather feared him, although I don't think it was altogether physical. The *Guardia* sergeant was drunk one evening in the large room of the inn and began stigmatizing the whole Basque race as cowardly, treacherous scum. I was about to speak to him myself when Urrutia appeared from somewhere and stood in the center of the room looking down at the seated man.

"Sandoval suddenly shut up quite abruptly, crossed himself and lurched out. The innkeeper had never said a word and it never happened again. It was a peculiar performance.

"But to my amazement, Sandoval, now quite sober, approached me on the street later that same night as I was getting some fresh mountain air before going to bed.

" 'Señor Ingles,' he said abruptly, 'do not be deceived by these people. You may think them your friends, but I, whom you dislike, tell you they are not. Leave here, lest they involve you in their dirty conspiracies.'

"I was quite annoyed and showed it. 'Do you think them enemies of the State, Sergeant,' I said ironically, 'about to overthrow the *Caudillo* perhaps?'

"He wasn't annoyed, which surprised me again. 'Señor,' he said, quite politely, I thought, 'you have lived in the Biscay provinces and in Spain elsewhere. Where, then, is their cemetery?' With that he turned on his heels and left.

"This was a puzzler! Of all the possible charges against these quiet, law-abiding folk, this seemed the most ludicrous. And yet, the man had been deadly serious. Moreover, his question was not so idiotic to a Spaniard. He must have a dossier on me, for one thing, since I had told no one where I'd lived, and had implied I'd learnt Basque and Spanish at the University. However, that's by the by.

"Where *was* the damned cemetery? True, there was neither church nor priest, but I had never heard of any place, no matter how small, on the Iberian Peninsula, without a communal burial site. I resolved to ask Urrutia, since I was getting very tired of Sandoval.

"When I went back to the inn, I found him in the big room making out bills or receipts. He rose as I approached and courteously asked me to take wine, speaking in Basque, but slowly, so that I should be sure to understand. Even the children invariably were this polite, I may say.

"I addressed him as 'Jaun', the Basque title meaning 'Lord', which every male Basque uses to every other, and explained in my poor Basque, helped out by Spanish, what it was I wanted to know.

" 'Our cemetery?' he said at length. 'You have been listening to that animal of a sergeant, whom the obscenity calling itself a government has sent to afflict us? I thought so.

" 'Friend,' he continued, laying his hand on my arm, 'the stones are thick and heavy in these parts. There is little soil and when the rain comes it washes that little away.

" 'As true children of Mother Church we send our dead to—— (he named a town some miles away) where they can lie undisturbed in ground so deep the elements will not expose them to the mountain wolves and stray dogs. I tell you this much,' he added, his voice suddenly very stern, 'because you are a friend and honest. With others I would let them think what they wanted.'

"I appreciated his compliment and said so. He never smiled, but nodded and tapped my arm again, as if in dismissal. I went up to my room under the eaves wondering why the sergeant was so stupid.

"Late one afternoon, three days later, I found myself high in the mountains to the east of the village and quite suddenly realized that I was lost.

"I had a compass and wasn't too worried, just annoyed. I'd somehow got into a maze of gloomy canyons and deep gorges that lay between the village and the French frontier. No one much ever went there; it was trackless all through and not even Sandoval thought there was any smuggling. The route involved would have been so awful that platinum or diamonds wouldn't have been worth it. The villagers themselves didn't like the general area, and I'd been warned that several local men had been lost there and never found.

"Yet it was evident that I was in the exact same place I'd been warned to avoid. Night was coming on, but I wasn't much bothered. Plenty of bushes and stunted pine trees grew about the particular canyon I found myself in, and I resolved to sleep high, to avoid any flash flood coming down the gorge at me. The following day it should be easy enough to find my way out.

"I collected some dry wood with no trouble, found a place to sleep, a shallow cave to be exact, well above the marks of past waters on the canyon wall and prepared to settle down. I had a chocolate bar and even a chunk of spicy, local sausage as well as my canteen, so I wasn't too badly off at all.

"The fire died down to a bed of coals and I curled up around it. I'd slept a lot worse than this, both before and since, I may say, and the sky was clear and full of stars. I fell asleep in no time.

"When I suddenly woke, it was past midnight by my watch. Clouds covered the stars and the fire had gone out completely so that I was in total darkness.

"But it was what awakened me that had me fully alert. It was a sound, and I knew that I hadn't dreamt it. Somewhere, not very far away, there had come a sound which had raised the hackles on my neck.

"I listened, straining every nerve. The sounds of the night were gentle, water falling in a tiny brook at the canyon's bottom, the wind in the bushes. I began to persuade myself that I had heard nothing.

"Then, just as I was dropping off again, it came. Rising to a crescendo and then dying away, the howl of a great wolf rang down the canyon. As it died away, it was answered, this time by a chorus of howls. The whole pack had gathered and were giving tongue. From the sheer volume of noise, they couldn't have been more than a few hundred yards off.

"D'you know, I was quite thrilled. Very few people have ever got this close to a wolf pack. There was no real danger; in summer, European wolves, even in Russia, are perfectly harmless. After a great battle or a winter famine, I suppose things can be different, but I wasn't a bit frightened.

"I was about to strike a light, since I was a trifle cold, and rekindle the fire, when something altogether different happened.

"Not from the direction of the wolves, but from down the canyon came first one shot, then a number close together. A scream rang out and to my horror, I realized that it came from a human throat. I sprang to my feet as I heard a hoarse voice shouting in Spanish, 'So, you Communist pig, that's one of you who won't bother the Government again.' The voice was that of Sergeant Sandoval!

"Then, as silence fell again, I heard from not far away, a low, pitiful moan and the sound of Sandoval's laugh. Wretched creature that he was, he never laughed without meaning ill to someone.

"At the same time, I saw the glow of a torch, a flashlight you know, not more than fifty yards away down canyon, and heard the *Guardia* sergeant speak again.

" 'Stop pretending to be hurt, Animal. If you want to be *really* hurt, then don't answer my questions. Now, why are you in these mountains at night? I have followed many of you. Where do you go? Speak, you—' Here he

used a stream of filthy epithets.

"There was no answer except that I again heard a low groan.

"This was altogether too much.

" 'Sandoval,' I bellowed. 'Sergeant Sandoval, it is I, the Señor Ingles. I am coming over. Leave that man alone!'

"I scrambled down from my cave and following the flickering torchlight soon stumbled into a little pocket on the other side of the tiny rivulet. Two figures were revealed in the light.

"Sandoval had laid his torch on a big rock and it illuminated all of us. He stood with his carbine ready, aimed at my stomach, his face contorted with fury and suspicion. It relaxed a little when he saw that I was alone and unarmed, but not much, and the gun stayed aimed.

"Between us on the bare ground crouched the figure of a young man. He was one of the locals whose face I vaguely remembered seeing from the village, although his name escaped me.

"His uncured sheepskin jacket was oozing blood from the right shoulder and his eyes were wide with shock and pain. Why Sandoval had shot the lad I didn't know, but I was determined to stop any further beastliness.

" 'All right, Sergeant,' I said firmly. 'What's all this about. You woke me up with all your racket. What's this chap done, eh? Looks harmless enough, don't he?' My imitation of the authoritarian Pukka Sahib, I felt, was the best way to deal with Sandoval.

"It was only partially successful. The gun muzzle lowered a little and a speculative look replaced the venom in his eyes.

" 'Perhaps the Señor knows what this Basque dirt is doing here himself? Perhaps he was meeting the Señor for some secret purpose? Perhaps the Señor is an agent of the Ingles government, eh?'

"Sandoval was not half-witted and was well aware what the current Spanish hierarchy felt about England. This looked like a more than plausible chance to involve me in something illegal.

" 'Don't be a bigger damned fool than you can help, Sergeant,' I said briskly. 'I'm unarmed as you can see. If I were a spy or some such rot, I'd have shot you from ambush and no one the wiser. I certainly wouldn't have shouted your name and come to be slaughtered.

" 'Now sling that gun and we'll see what we can do for this lad here. He's bleeding badly, can't you see?'

"It was a good try, but it missed by a mile. The carbine muzzle came up and again centered on my midriff.

" 'Always the orders from the great Ingles,' said Sandoval in a very nasty voice. 'I think you are wrong, Señor. I have another idea.

This *cabron* here murdered the poor Ingles traveller, and was caught in the act by me, Juan Sandoval, of the *Guardia Civil,* who avenged the Ingles nobly. Do you like that idea, Señor?'

"And he meant it. The bastard was going to shoot me down like a rat and blame it on the kid lying between us. It was easy in the torchlight to see there was murder in Sandoval's eyes, as he slowly raised the gun until I could look down the barrel. I couldn't believe it. I was frozen, don't you know, and at the same time realized that I would be dead in one second. Whew!

"At this point my legs came to life almost by themselves. I had no conscious idea of doing anything, I just jumped at him. There was a blast in my face and utter darkness.

"When I woke, there was singing. *How appropriate,* I thought to myself. *Of course you're now Up Above and the singing is official.*

"But then I realized that I had one king devil of a headache and that the singing didn't sound much like any heavenly choir I'd ever envisaged. I also realized that my eyes were tight shut, so I opened them. Then I shut them quickly. Then I opened them again. A wolf was looking at me from a foot away.

"The wolf said 'ah,' in a satisfied voice and went away. I really began to wake up then, and look about as well.

"I was lying on a bed of skins in a little stone-walled and ceilinged room lit by a small fire in one corner. My hands were tied in front of me and feet were tied together as well, both by a loose sort of leather strap arrangement. I could move, but only hobbled as it were, and I wasn't uncomfortable except for an aching head. The room was empty but that didn't last long. A skin curtain or hanging was twitched aside and two men came in. Here was my wolf, or rather wolves!

"They were dressed in skins, entirely, except for peculiar leather leggings of some sort, and set over their heads were the beautifully carved and decorated heads of wolves. These combined helmets and masks were apparently made of painted wood *and* the wolf's furry skull, somehow blended. The effect was striking, grotesque and most effective. Save for the eye slits, no trace of a human face was visible.

"Without a word, they came over and helped me to my feet. Half-leading, half-carrying, they got me through the skin doorway and out into the larger cave beyond.

"Of course, that's what it was. My room was a natural alcove off a huge grotto, at least two hundred feet long and twice that

wide, and God alone knows how high. The light of the great log fire, in the center of the cave, and to one side, simply vanished up above in the blackness.

"Around the fire on the floor were at least fifty seated figures, all singing. This was the music I'd heard, a splendid, deep-chested chant that went on and on. The words were quite unintelligible. Every figure wore skins like my two guards, but the faces, or rather the masks, were a wide selection. There were wolves, the majority, but also some few badgers, at least one ibex, two or three bears and a number I couldn't identify by the firelight.

"While I'd been looking at all this, I'd been set down on a flat rock and my two attendants had sat down with me, one on each side. They began to sing also, but although they were roaring practically in my ears, one still couldn't make out the words. Still, there's no denying it was impressive.

"I was about thirty feet from the fire and I could see that it was dying; no one was trying to replenish it either, and as it died, other things became visible. As the logs smouldered and collapsed, a great square block of stone appeared behind the fire and against the central wall of the cave. And the wall itself also appeared. It seemed to have been polished or smoothed down, for there were designs and things painted on it, but too dim for me to make them out in the dying light.

"Next the singing began to die out along with the light, and soon there was a hush, with only the crackle of the coals and blackening logs breaking the silence. Everyone, and I include myself, was waiting for something. One could feel it in the air like electricity.

"Now four men, all in wolf masks, appeared, carrying a heavy burden. They marched solemnly through a lane in the crowd and deposited the burden on the great stone altar. The big block could have been nothing else, you know, and the second I spotted it I knew what was coming. Somehow, something or some*one* was going to occupy that altar and I felt pretty certain who it would be! Still, no point in yelling, so I sat quietly. Nothing else I could do, actually.

"But on the altar now lay the body of a huge brown bear. The carriers had left and I could see it clearly, it's great clawed forepaws spilling over the side of the stone, its massive, snarling jaws clotted with dried saliva open in a grin of *rigor mortis*. I can tell you chaps, it made me feel just a trifle easier in my mind.

"A new light appeared at the far end of the cave, and as it advanced a stranger and even more curious sight became visible.

"The new light came from a single large torch, not a flash, a real torch, made of wood, and holding it was the damnedest figure in the whole assemblage. The mask this time was the neck and head, antlers and all, of a great red deer, a stag. The skin-clad body beneath was naked to the waist and attached to the waist by a belt was a great, carved wooden phallus, strapped on over a kilt of fur and hide. The legs again were bare and on the man's chest were painted strange geometric designs. Oh, yes, there was a long tail of some animal or other fastened on behind. Sounds ludicrous in a description, I dare say, but it was anything but to see. I rather think I was still dizzy from that gunshot or head crease, but the whole wild scene was superb and this last entry a figure of tremendous and awful dignity.

"The chant began again with this new arrival and he seemed to lead it, singing out in a great roaring voice, quite audible over the rest. And the others began to rise and whirl about as they sang. So did the chief, whirling his torch about so that the sparks flew. He moved like a ballet dancer, too.

"Several times as he did so, the torch illumined the back wall of the cave, and I saw the painted designs upon it clearly for a second or two. I'd seen them before, or others like them. Blackened by age and smoke, the wooly mammoth and the reindeer, the vanished aurochs and the wild horse marched across the wall as they had for countless millennia. The cave evidently had been in use for a very long time indeed.

"Now the man-deer held a great club in his free hand. All the others, save for my guards, had produced them too, and began to form a great line leading to the altar, with the antlered leader in front. While the mighty chant rose higher and higher, first he, then in turn the others, filed by the carcass of the bear and struck it each one tremendous blow. The dead body shook to the frightful pounding, but I'd rather have seen it than felt it, I can tell you!

"When all were done, I was amazed to see that blood was trickling down the face of the altar in a dark stream from under the bear skin. I should have thought this impossible in a creature dead so long, but I was clearly mistaken. No doubt the battering the body had received had caused it to flow afresh.

"The man-deer suddenly whirled up his snapping torch, by now almost the only light, and there was instant silence. Then, one by one, the worshippers approached the altar. As they did so, they briefly knelt while the chief hierophant dipped one finger in the blood and marked their

beastly disguises on the muzzle.

"As they finished, my two wolfish attendants suddenly lifted me firmly to my feet and carried me also down to the altar stone. For a second I stared into the burning eye slits of the great deer mask, and felt the wet finger mark my forehead. I was no longer afraid. For I knew well, oh yes, I knew now I was in no danger. I had been sealed in the compact.

Then a bowl was brought and held to my lips. In silence I drank without fear and without fear felt the whole scene darken, then vanish as my drugged eyes closed.

"When I woke, the morning sun was streaming into my window at the inn. I lay for some time quietly in my pajamas, listening to the sounds of passers-by on the village street outside, smelling the stew cooking in the kitchen.

"Presently I rose, shaved and dressed. As I looked into my travelling mirror, I saw the weal on my right temple, but the headache was gone.

"I went downstairs to the big room, noting that it was about nine and called for coffee and bread. I was very hungry.

"The landlord brought the tray himself and after placing it in front of me, stood looking down at me, his broad face calm as always. I determined I'd say nothing and finally he spoke.

" 'You are well again, Friend? You were found on the mountain yesterday, having apparently fallen, but when we carried you down, my wife said you would be yourself after a good sleep. This is so, no?'

"That was the way it was going to be then. A 'fall' and a 'good sleep'. And then it came to me with a rush.

"You fellows must think I was awfully obtuse, but one thing had completely vanished from my thoughts. Sandoval! I'd completely forgotten a man who'd tried to murder first a village boy and then me! Where was the *Guardia* sergeant? The shock of remembering started to bring me to my feet in an involuntary spasm, when Urrutia's great hand fell upon my shoulder, calming me and preventing my getting up.

" 'We have had a worse tragedy, Friend, which is why we have not paid you the attention you deserve,' came his deep, resonant voice. 'The evil-spoken sergeant of the government police has vanished. All the men in the village are out looking, and his two men as well. It seems he left here very drunk, yesterday afternoon, and I fear that he has been foolish. Even you fell and you are used to the mountains, which he is not.'

"Presently his hand left my shoulder and when I eventually looked up, he was gone.

"I remained seated long after

my coffee had cooled. How does one tell the last of the Cro-Magnon priest-kings that one strenuously objects to witnessing human sacrifice? I never did think of a way until I left.

"Still, as I say, the Chinese do not have a clear run on being the oldest at *everything,* you know."

I asked a question and Ffellowes looked thoughtful.

"The cemetery? I don't think they buried their dead locally, that's all. In fact, I think they were in the cave. Logical, eh? Well, goodnight all." He was gone.

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This tale of nautical science fiction was first published in 1913. Though dated in some aspects, we think you'll find it a colorful and fascinating story. We are indebted to John W. Vess, Jr. for bringing it to our attention, as well as for the notes on the author that follow.

Although not a science fiction writer per se, *Morgan Robertson (1861-1915) made frequent use of SF in his tales of the sea. His short story, "The Battle of the Monsters," which originally appeared in* The Saturday Evening Post, *is cited by A. W. Derleth in* BEYOND TIME AND SPACE *(Pellegrini and Cudahy, 1952) as one of the earliest known tales to make use of new medical knowledge about bacterial warfare within the body. In other stories, Robertson often had his plot revolve around a chemical formula, a Frankenstein-like experiment, a magnetic-powered airship, an invisible light ray, and other inventions and situations equally unrelated to the sea. He also leaned heavily toward the occult, often writing about hypnotism, reincarnation, dual personality, and mental telepathy. Some of Robertson's best bizarre stories appear in* THE GRAIN SHIP *(McKinlay, Stone and MacKenzie, 1914) and* OVER THE BORDER *(McClure's Magazine and Metropolitan Magazine, 1914). The title story in* THE GRAIN SHIP *was described by the late Irvin S. Cobb as "one of the greatest concentrations of hair-lifting horror" that he had ever read* (EXIT LAUGHING, *The Bobbs Merrill Company, Bridgeport, Conn. 1941, p. 504). Robertson's chief claim to fame among science fiction fans rests perhaps on his 1898 novelette "Futility." This strangely prophetic story, written fourteen years before the sinking of the* Titanic, *describes in amazing true-to-life detail how an "unsinkable" luxury liner, the* Titan, *struck an iceberg and sank. The real-life and fictional ships were so similar that Walter Lord used a description of this work by Robertson to introduce his book about the Titanic,* A NIGHT TO REMEMBER *(Henry Holt and Company, 1955).*

—JOHN W. VESS, JR.

FROM THE DARKNESS AND THE DEPTHS

by Morgan Robertson

I HAD KNOWN HIM FOR A PAINTer of renown—a master of his art, whose pictures, which sold for high prices, adorned museums, the parlors of the rich, and, when on exhibition, were hung low and conspicuous. Also, I knew him for an expert photographer—an "art photographer," as they say, one who dealt with this branch of industry as a fad, an amusement, and who produced pictures that in composition, lights, and shades rivaled his productions with the brush.

His cameras were the best that the market could supply, yet he was able, from his knowledge of optics and chemistry, to improve them for his own uses far beyond the ability of the makers. His studio was filled with examples of his work, and his mind was stocked with information and opinions on all subjects ranging from international policies to the servant-girl problem.

He was a man of the world, gentlemanly and successful, about sixty years old, kindly and gracious of manner, and out of this kindliness and graciousness had granted me the compliment of his friendship, and access to his studio whenever I felt like calling upon him.

Yet it never occurred to me that the wonderful and technically correct marines hanging on his walls were due to anything but the artist's conscientious study of his subject, and only his casual mispronunciation of the word "leeward," which landsmen pronounce as spelled, but which rolls off the tongue of a sailor, be he former dock rat or naval officer, as "looward," and his giving the long sounds to the vowels of the words "patent" and "tackle," that induced me to ask if he had ever been to sea.

"Why, yes," he answered. "Until I was thirty I had no higher ambition than to become a skipper of some craft; but I never achieved it. The best I did was to sign first mate for one voyage—and that one was my last. It was on that voyage that I learned

something of the mysterious properties of light, and it made me a photographer, then an artist. You are wrong when you say that a searchlight cannot penetrate fog."

"But it had been tried," I remonstrated.

"With ordinary light. Yes, of course, subject to refraction, reflection, and absorption by the millions of minute globules of water it encounters."

We had been discussing the wreck of the *Titanic,* the most terrible marine disaster of history, the blunders of construction and management, and the later proposed improvements as to the lowering of boats and the location of ice in a fog.

Among these considerations was also the plan of carrying a powerful searchlight whose beam would illumine the path of a twenty-knot liner and render objects visible in time to avoid them. In regard to this I had contended that a searchlight could not penetrate fog, and if it could, would do as much harm as good by blinding and confusing the watch officers and lookouts on other craft.

"But what other kind of light can be used?" I asked, in answer to his mention of ordinary light.

"Invisible light," he answered. "I do not mean the Rontgen ray, nor the emanation from radium, both of which are invisible, but neither of which is light, in that neither can be reflected nor refracted. Both will penetrate many different kinds of matter, but it needs reflection or refraction to make visible an object on which it impinges. Understand?"

"Hardly," I answered dubiously. "What kind of visible light is there, if not radium or the Rontgen ray? You can photograph with either, can't you?"

"Yes, but to see what you have photographed you must develop the film. And there is no time for that aboard a fast steamer running through the ice and the fog. No, it is mere theory, but I have an idea that the ultraviolet light—the actinic rays beyond the violet end of the spectrum, you know—will penetrate fog to a great distance, and in spite of its higher refractive power, which would distort and magnify an object, it is better than nothing."

"But what makes you think that it will penetrate fog?" I queried. "And if it is invisible itself, how will it illumine an object?"

"As to your first question," he answered, with a smile, "it is well known to surgeons that ultraviolet light will penetrate the human body to the depth of an inch, while the visible rays are reflected at the surface. And it has been known to photographers for fifty years that this light—easily isolated by dispersion through prisms—will act on a sensitized plate in an utterly dark room."

"Granted," I said. "But how about the second question? How can you see by this light?"

"There you have me," he answered. "It will need a quicker development than any now known to photography—a traveling film, for instance, that will show the picture of an iceberg or a ship before it is too late to avoid it—a traveling film sensitized by a quicker acting chemical than any now used."

"Why not puzzle it out?" I asked. "It would be a wonderful invention."

"I am too old," he answered dreamily. "My life work is about done. But other and younger men will take it up. We have made great strides in optics. The moving picture is a fact. Colored photographs are possible. The ultraviolet microscope shows us objects hitherto invisible because smaller than the wave length of visible light. We shall ultimately use this light to see through opaque objects. We shall see colors never imagined by the human mind, but which have existed since the beginning of light.

"We shall see new hues in the sunset, in the rainbow, in the flowers and foliage of forest and field. We may possibly see creatures in the air above never seen before.

"We shall certainly see creatures from the depths of the sea, where visible light cannot reach—creatures whose substance is of such a nature that it will not respond to the light it has never been exposed to—a substance which is absolutely transparent because it will not absorb, and appear black; will not reflect, and show a color of some kind; and will not refract, and distort objects seen through it."

"What!" I exclaimed. "Do you think there are invisible creatures?"

He looked gravely at me for a moment, then said: "You know that there are sounds that are inaudible to the human ear because of their too rapid vibration, others that are audible to some, but not to all. There are men who cannot hear the chirp of a cricket, the tweet of a bird, or the creaking of a wagon wheel.

"You know that there are electric currents much stronger in voltage than is necessary to kill us, but of wave frequency so rapid that the human tissue will not respond, and we can receive such currents without a shock. And *I know*"—he spoke with vehemence—"that there are creatures in the deep sea of color invisible to the human eye, for I have not only felt such a creature, but seen its photograph taken by the ultraviolet light."

"Tell me," I asked breathlessly. "Creatures solid, but invisible?"

"Creatures solid, and invisible because absolutely transparent. It

is long since I have told the yarn. People would not believe me, and it was so horrible an experience that I have tried to forget it. However, if you care for it, and are willing to lose your sleep to-night, I'll give it to you."

He reached for a pipe, filled it, and began to smoke; and as he smoked and talked, some of the glamor and polish of the successful artist and clubman left him. He was an old sailor, spinning a yarn.

"It was about thirty years ago," he began, "or, to be explicit, twenty-nine years this coming August, at the time of the great Java earthquake. You've heard of it—how it killed seventy thousand people, thirty thousand of whom were drowned by the tidal wave.

"It was a curious phenomenon; Krakatoa Island, a huge conical mountain rising from the bottom of Sunda Strait, went out of existence, while in Java a mountain chain was leveled, and up from the bowels of the earth came an iceberg—as you might call it—that floated a hundred miles on a stream of molten lava before melting.

"I was not there; I was two hundred miles to the sou'west, first mate of one of those old-fashioned, soft-pine, centerboard barkentines—three sticks the same length, you know—with the mainmast stepped on the port side of the keel to make room for the centerboard—a craft that would neither stay, nor wear, nor scud, nor heave to, like a decent vessel.

"But she had several advantages; she was new, and well painted, deck, top-sides, and bottom. Hence her light timbers and planking were not water-soaked. She was fastened with 'trunnels,' not spikes and bolts, and hemp rigged.

"Perhaps there was not a hundredweight of iron aboard of her, while her hemp rigging, though heavier than water, was lighter than wire rope, and so, when we were hit by the backwash of that tidal wave, we did not sink, even though butts were started from one end to the other of the flimsy hull, and all hatches were ripped off.

"I have called it the backwash, yet we may have had a tidal wave of our own; for, though we had no knowledge of the frightful catastrophe at Java, still there had been for days several submarine earthquakes all about us, sending fountains of water, steam bubbles, and mud from the sea bed into the air.

"As the soundings were over two thousand fathoms in that neighborhood, you can imagine the seismic forces at work beneath us. There had been no wind for days, and no sea, except the agitation caused by the upheavals. The sky was dull mud color, and the sun looked like nothing but a

dark, red ball, rising day by day in the east, to move overhead and set in the west. The air was hot, sultry, and stifling, and I had difficulty in keeping the men—a big crew—at work.

"The conditions would try anybody's temper, and I had my own troubles. There was a passenger on board, a big, fat, highly educated German—a scientist and explorer—whom we had taken aboard at some little town on the West Australian coast, and who was to leave us at Batavia, where he could catch a steamer for Germany.

"He had a whole laboratory with him, with scientific instruments that I didn't know the names of, with maps he had made, stuffed beasts and birds he had killed, and a few live ones which he kept in cages and attended to himself in the empty hold; for we were flying light, you know, without even ballast aboard, and bound to Batavia for a cargo.

"It was after a few eruptions from the bottom of the sea that he got to be a nuisance; he was keenly interested in the strange dead fish and nondescript creatures that had been thrown up. He declared them new, unknown to science, and wore out my patience with entreaties to haul them aboard for examination and classification.

"I obliged him for a time, until the decks stank with dead fish, and the men got mutinous. Then I refused to advance the interests of science any farther, and, in spite of his excitement and pleadings, refused to litter the decks any more. But he got all he wanted of the unclassified and unknown before long.

"Tidal wave, you know, is a name we give to any big wave, and it has no necessary connection with the tides. It may be the big third wave of a series—just a little bigger than usual; it may be the ninth, tenth, and eleventh waves merged into one huge comber by uneven wind pressure; it may be the backwash from an earthquake that depresses the nearest coast, and it may be—as I think it was in our case—a wave sent out by an upheaval from the sea bed. At any rate, we got it, and we got it just after a tremendous spouting of water and mud, and a thick cloud of steam on the northern horizon.

"We saw a seeming rise to the horizon, as though caused by refraction, but which soon eliminated refraction as a cause by its becoming visible in its details—its streaks of water and mud, its irregular upper edge, the occasional combers that appeared on this edge, and the terrific speed of its approach. It was a wave, nothing else, and coming at forty knots at least.

"There was little that we could

do; there was no wind, and we headed about west, showing our broadside; yet I got the men at the downhauls, clew-lines, and stripping lines of the lighter kites; but before a man could leave the deck to furl, that moving mountain hit us, and buried us on our beam ends just as I had time to sing out: 'Lash yourselves, every man.'

"Then I needed to think of my own safety and passed a turn of the mizzen gaff-topsail downhaul about me, belaying to a pin as the cataclysm hit us. For the next two minutes—although it seemed an hour, I did not speak, nor breathe, nor think, unless my instinctive grip on the turns of the downhaul on the pin may have been an index of thought. I was under water; there was roaring in my ears, pain in my lungs, and terror in my heart.

"Then there came a lessening of the turmoil, a momentary quiet, and I roused up, to find the craft floating on her side, about a third out of water, but apt to turn bottom up at any moment from the weight of the water-soaked gear and canvas, which will sink, you know, when wet.

"I was hanging in my bight of rope from a belaying pin, my feet clear of the perpendicular deck, and my ears tortured by the sound of men overboard crying for help—men who had not lashed themselves. Among them I knew was the skipper, a mild-mannered little fellow, and the second mate, an incompetent tough from Portsmouth, who had caused me lots of trouble by his abuse of the men and his depending upon me to stand by him.

"Nothing could be done for them; they were adrift on the back wall of a moving mountain that towered thirty degrees above the horizon to port; and another moving mountain, as big as the first, was coming on from starboard—caused by the tumble into the sea of the uplifted water.

"Did you ever fall overboard in a full suit of clothes? If you did, you know the mighty exercise of strength required to climb out. I was a strong, healthy man at the time, but never in my life was I so tested. I finally got a grip on the belaying pin and rested; then, with an effort that caused me physical pain, I got my right foot up to the pinrail and rested again; then, perhaps more by mental strength than physical—for I loved life and wanted to live—I hooked my right foot over the rail, reached higher on the rope, rested again, and finally hove myself up to the mizzen rigging, where I sat for a few moments to get my breath, and think, and look around.

"Forward, I saw men who had lashed themselves to the starboard rail, and they were struggling, as I had struggled, to get

up to the horizontal side of the vessel. They succeeded, but at the time I had no use for them. Sailors will obey orders, if they understand the orders, but this was an exigency outside the realm of mere seamanship.

"Men were drowning off to port; men, like myself, were climbing up to temporary safety afforded by topsides of a craft on her beam ends; and aft, in the alleyway, was the German professor, unlashed, but safe and secure in his narrow confines, one leg through a cabin window, and both hands gripping the rail, while he bellowed like a bull, not for himself, however—but for his menagerie in the empty hold.

"There was small chance for the brutes—smaller than for ourselves, left on the upper rail of an overturned craft, and still smaller than the chance of the poor devils off to port, some of whom had gripped the half-submerged top-hamper, and were calling for help.

"We could not help them; she was a Yankee craft, and there was not a life buoy or belt on board; and who, with another big wave coming, would swim down to looward with a line?

"Landsmen, especially women and boys, have often asked me why a wooden ship, filled with water, sinks, even though not weighted with cargo. Some sailors have pondered over it, too, knowing that a small boat, built of wood, and fastened with nails, will float if water-logged.

"But the answer is simple. Most big craft are built of oak or hard pine, and fastened together with iron spikes and bolts—sixty tons at least to a three-hundred-ton schooner. After a year or two this hard, heavy wood becomes water-soaked, and, with the iron bolts and spikes, is heavier than water, and will sink when the hold is flooded.

"This craft of ours was like a small boat—built of soft, light wood, with trunnels instead of bolts, and no iron on board except the anchors and one capstan. As a result, though ripped, twisted, broken, and disintegrated, she still floated even on her beam ends.

"But the soaked hemp rigging and canvas might be enough to drag the craft down, and with this fear in my mind I acted quickly. Singing out to the men to hang on, I made my way aft to where we had an ax, lodged in its beckets on the after house. With this I attacked the mizzen lanyards, cutting everything clear, then climbed forward to the main.

"Hard as I worked I had barely cut the last lanyard when that second wave loomed up and crashed down on us. I just had time to slip into the bight of a rope, and save myself; but I had to give up the ax; it slipped from

my hands and slid down to the port scuppers.

"That second wave, in its effect, was about the same as the first, except that it righted the craft. We were buried, choked, and half drowned; but when the wave had passed on, the main and mizzenmasts, unsupported by the rigging that I had cut away, snapped cleanly about three feet above the deck, and the broad, flat-bottomed craft straightened up, lifting the weight of the foremast and its gear, and lay on an even keel, with foresail, staysail, and jib set, the fore gaff-topsail, flying jib, and jib-topsail clewed down and the wreck of the masts bumping against the port side.

"We floated, but with the hold full of water, and four feet of it on deck amidships that surged from one rail to the other as the craft rolled, pouring over and coming back. All hatches were ripped off, and our three boats were carried away from their chocks on the house.

"Six men were clearing themselves from their lashings at the fore rigging, and three more, who had gone overboard with the first sea, and had caught the upper gear to be lifted as the craft righted, were coming down, while the professor still declaimed from the alley.

" 'Hang on all,' I yelled; 'there's another sea coming.'

"It came, but passed over us without doing any more damage, and though a fourth, fifth, and sixth followed, each was of lesser force than the last, and finally it was safe to leave the rail and wade about, though we still rolled rails under in what was left of the turmoil.

"Luckily, there was no wind, though I never understood why, for earthquakes are usually accompanied by squalls. However, even with wind, our canvas would have been no use to us; for, water-logged as we were, we couldn't have made a knot an hour, nor could we have steered, even with all sail set. All we could hope for was the appearance of some craft that would tow the ripped and shivered hull to port, or at least take us off.

"So, while I searched for the ax, and the professor searched into the depths under the main hatch for signs of his menagerie—all drowned, surely—the remnant of the crew lowered the foresail and jibs, stowing them as best they could.

"I found the ax, and found it just in time; for I was attacked by what could have been nothing but a small-sized sea serpent, that had been hove up to the surface and washed aboard us. It was only about six feet long, but it had a mouth like a bulldog, and a row of spikes along its back that could have sawed a man's leg off.

"I managed to kill it before it

harmed me, and chucked it overboard against the protests of the professor, who averred that I took no interest in science.

" 'No, I don't,' I said to him. 'I've other things to think of. And you, too. You'd better go below and clean up your instruments, or you'll find them ruined by salt water.'

"He looked sorrowfully and reproachfully at me, and started to wade aft; but he halted at the forward companion, and turned, for a scream of agony rang out from the forecastle deck, where the men were coming in from the jibs, and I saw one of them writhing on his back, apparently in a fit, while the others stood wonderingly around.

"The forecastle deck was just out of water, and there was no wash; but in spite of this, the wriggling, screaming man slid head-first along the break and plunged into the water on the main deck.

"I scrambled forward, still carrying the ax, and the men tumbled down into the water after the man; but we could not get near him. We could see him under water, feebly moving, but not swimming; and yet he shot this way and that faster than a man ever swam; and once, as he passed near me, I noticed a gaping wound in his neck, from which the blood was flowing in a stream—a stream like a current, which did not mix with the water and discolor it.

"Soon his movements ceased, and I waded toward him; but he shot swiftly away from me, and I did not follow, for something cold, slimy, and firm touched my hand—something in the water, but which I could not see.

"I floundered back, still holding the ax, and sang out to the men to keep away from the dead man; for he was surely dead by now. He lay close to the break of the topgallant forecastle, on the starboard side; and as the men mustered around me I gave one my ax, told the rest to secure others, and to chop away the useless wreck pounding our port side—useless because it was past all seamanship to patch up that basketlike hull, pump it out, and raise jury rigging.

"While they were doing it, I secured a long pike pole from its beckets, and, joined by the professor, cautiously approached the body prodding ahead of me.

"As I neared the dead man, the pike pole was suddenly torn from my grasp, one end sank to the deck, while the other raised above the water; then it slid upward, fell, and floated close to me. I seized it, turned to the professor.

" 'What do you make of this, Herr Smidt?' I asked. 'There is something down there that we cannot see—something that killed the man. See the blood?'

"He peered closely at the dead man, who looked curiously distorted and shrunken, four feet under water. But the blood no longer was a thin stream issuing from his neck; it was gathered into a misshapen mass about two feet away from his neck.

" 'Nonsense,' he answered. 'Something alive which we cannot see is contrary to all laws of physics. Der man must have fallen and hurt himself, which accounts for der bleeding. Den he drowned in der water. Do you see?—mine Gott! What iss?'

"He suddenly went under water himself, and dropping the pike pole, I grabbed him by the collar and braced myself. Something was pulling him away from me, but I managed to get his head out, and he spluttered:

" 'Help! Holdt on to me. Something haf my right foot.'

" 'Lend a hand here,' I yelled to the men, and a few joined me, grabbing him by his clothing. Together we pulled against the invisible force, and finally all of us went backward, professor and all, nearly to drown ourselves before regaining our feet. Then, as the agitated water smoothed, I distinctly saw the mass of red move slowly forward and disappear in the darkness under the forecastle deck.

" 'You were right, mine friend,' said the professor, who, in spite of his experience, held his nerve. 'Dere is something invisible in der water—something dangerous, something which violates all laws of physics und optics. Oh, mine foot, how it hurts!'

" 'Get aft,' I answered, 'and find out what ails it. And you fellows,' I added to the men, 'keep away from the forecastle deck. Whatever it is, it has gone under it.'

"Then I grabbed the pike pole again, cautiously hooked the barb into the dead man's clothing, and, assisted by the men, pulled him aft to the poop, where the professor had preceded, and was examining his ankle. There was a big, red wale around it, in the middle of which was a huge blood blister. He pricked it with his knife, then rearranged his stocking and joined us as we lifted the body.

" 'Great God, sir!' exclaimed big Bill, the bosun. 'Is that Frank? I wouldn't know him.'

"Frank, the dead man, had been strong, robust, and full-blooded. But he bore no resemblance to his living self. He lay there, shrunken, shortened, and changed, a look of agony on his emaciated face, and his hands clenched—not extended like those of one drowned.

" 'I thought drowned men swelled up,' ventured one of the men.

" 'He was not drowned,' said Herr Smidt. 'He was sucked dry, like a lemon. Perhaps in his whole

body there is not an ounce of blood, nor lymph, nor fluid of any kind.'

"I secured an iron belaying pin, tucked it inside his shirt, and we hove him overboard at once; for, in the presence of this horror, we were not in the mood for a burial service. There we were, eleven men on a water-logged hulk, adrift on a heaving, greasy sea, with a dark-red sun showing through a muddy sky above, and an invisible *thing* forward that might seize any of us at any moment it chose, in the water or out; for Frank had been caught and dragged down.

"Still, I ordered the men, cook, steward, and all, to remain on the poop and—the galley being forward—to expect no hot meals, as we could subsist for a time on the cold, canned food in the storeroom and lazaret.

"Because of an early friction between the men and the second mate, the mild-mannered and peace-loving skipper had forbidden the crew to wear sheath knives; but in this exigency I overruled the edict. While the professor went down into his flooded room to doctor his ankle and attend to his instruments, I raided the slop chest, and armed every man of us with a sheath knife and belt; for while we could not see the creature, we could feel it—and a knife is better than a gun in a hand-to-hand fight.

"Then we sat around, waiting, while the sky grew muddier, the sun darker, and the northern horizon lighter with a reddish glow that was better than the sun. It was the Java earthquake, but we did not know it for a long time.

"Soon the professor appeared and announced that his instruments were in good condition, and stowed high on shelves above the water.

" 'I must resensitize my plates, however,' he said. 'Der salt water has spoiled them; but mine camera merely needs to dry out; und mine telescope, und mine static machine und Leyden jars—why, der water did not touch them.'

" 'Well,' I answered. 'That's all right. But what good are they in the face of this emergency? Are you thinking of photographing anything now?'

" 'Perhaps. I haf been thinking some.'

" 'Have you thought out what that creature is—forward, there?'

" 'Partly. It is some creature thrown up from der bottom of der sea, und washed on board by der wave. Light, like wave motion, ends at a certain depth, you know; und we have over twelve thousand feet beneath us. At that depth dere is absolute darkness, but we know that creatures live down dere, und fight, und eat, und die.'

" 'But what of it? Why can't we see that thing?'

" 'Because, in der ages that haf passed in its evolution from der original moneron, it has never been exposed to light—I mean visible light, der light that contains der seven colors of der spectrum. Hence it may not respond to der three properties of visible light—reflection, which would give it a color of some kind; absorption, which would make it appear black; or refraction, which, in der absence of der other two, would distort things seen through it. For it would be transparent, you know.'

" 'But what can be done?' I asked helplessly, for I could not understand at the time what he meant.

" 'Nothing, except that der next man attacked must use his knife. If he cannot see der creature, he can feel it. Und perhaps—I do not know yet—perhaps, in a way, we may see it—its photograph.'

"I looked blankly at him, thinking he might have gone crazy, but he continued.

" 'You know,' he said, 'that objects too small to be seen by the miscroscope, because smaller than der amplitude of der shortest wave of visible light, can be seen when exposed to der ultraviolet light—der dark light beyond der spectrum. Und you know that this light is what acts der most in photography? That it exposes on a sensitized plate new stars in der heavens invisible to der eye through the strongest telescope?'

"Don't know anything about it,' I answered. 'But if you can find a way out of this scrape we're in, go ahead.'

" 'I must think,' he said dreamily. 'I haf a rock-crystal lens which is permeable to this light, und which I can place in mine camera. I must have a concave mirror, not of glass, which is opaque to this light, but of metal.'

" 'What for?' I asked.

" To throw der ultraviolet light on der beast. I can generate it with mine static machine.'

" 'How will one of our lantern reflectors do? They are of polished tin, I think.'

" 'Good! I can repolish one.'

"We had one deck lantern larger than usual, with a metallic reflector that concentrated the light into a beam, much as do the present-day searchlights. This I procured from the lazaret, and he pronounced it available. Then he disappeared, to tinker up his apparatus.

"Night came down, and I lighted three masthead lights, to hoist at the fore to inform any passing craft that we were not under command; but, as I would not send a man forward on that job, I went myself, carefully feeling my way with the pike pole. Luckily, I escaped contact with the creature, and returned to the poop, where we had a cold supper of canned cabin stores.

"The top of the house was dry, but it was cold, especially so as we were all drenched to the skin. The steward brought up all the blankets there were in the cabin —for even a wet blanket is better than none at all—but there were not enough to go around, and one man volunteered, against my advice, to go forward and bring aft bedding from the forecastle.

"He did not come back; we heard his yell, that finished with a gurgle; but in that pitch black darkness, relieved only by the red glow from the north, not one of us dared to venture to his rescue. We knew that he would be dead, anyhow, before we could get to him; so we stood watch, sharing the blankets we had when our time came to sleep.

"It was a wretched night that we spent on the top of that after house. It began to rain before midnight, the heavy drops coming down almost in solid waves; then came wind, out of the south, cold and biting, with real waves, that rolled even over the house, forcing us to lash ourselves. The red glow to the north was hidden by the rain and spume, and, to add to our discomfort, we were showered with ashes, which, even though the surface wind was from the south, must have been brought from the north by an upper air current.

"We did not find the dead man when the faint daylight came; and so could not tell whether or not he had used his knife. His body must have washed over the rail with a sea, and we hoped the invisible killer had gone, too. But we hoped too much. With courage born of this hope a man went forward to lower the masthead lights, prodding his way with the pike pole.

"We watched him closely, the pole in one hand, his knife in the other. But he went under at the fore rigging without even a yell, and the pole went with him, while we could see, even at the distance and through the disturbed water, that his arms were close to his sides, and that he made no movement, except for the quick darting to and fro. After a few moments, however, the pike pole floated to the surface, but the man's body, drained, no doubt, of its buoyant fluids, remained on the deck.

"It was an hour later, with the pike pole for a feeler, before we dared approach the body, hook on to it, and tow it aft. It resembled that of the first victim, a skeleton clothed with skin, with the same look of horror on the face. We buried it like the other, and held to the poop, still drenched by the downpour of rain, hammered by the seas, and choked by ashes from the sky.

"As the shower of ashes increased it became dark as twilight, and though the three lights aloft

burned out at about midday, I forbade a man to go forward to lower them, contenting myself with a turpentine flare lamp that I brought up from the lazaret, and filled, ready to show if the lights of a craft came in view. Before the afternoon was half gone it was dark as night, and down below, up to his waist in water, the German professor was working away.

"He came up at supper time, humming cheerfully to himself, and announced that he had replaced his camera lens with the rock crystal, that the lantern, with its reflector and a blue spark in the focus, made an admirable instrument for throwing the invisible rays on the beast, and that he was all ready, except that his plates, which he had resensitized —with some phosphorescent substance that I forget the name of, now—must have time to dry. And then, he needed some light to work by when the time came, he explained.

" 'Also another victim,' I suggested bitterly; for he had not been on deck when the last two men had died.

" 'I hope not,' he said. 'When we can see, it may be possible to stir him up by throwing things forward; then when he moves der water we can take shots.'

" 'Better devise some means of killing him,' I answered. 'Shooting won't do, for water stops a bullet before it goes a foot into it.'

" 'Der only way I can think of,' he responded, 'is for der next man —you hear me all, you men—to stick your knife at the end of the blood—where it collects in a lump. Dere is der creature's stomach, and a vital spot.'

" 'Remember this, boys,' I laughed, thinking of the last poor devil, with his arms pinioned to his side. 'When you've lost enough blood to see it in a lump, stab for it.'

"But my laugh was answered by a shriek. A man lashed with a turn of rope around his waist to the stump of the mizzenmast, was writhing and heaving on his back, while he struck with his knife, apparently at his own body. With my own knife in my hand I sprang toward him, and felt for what had seized him. It was something cold, and hard, and leathery, close to his waist.

"Carefully, gauging my stroke, I lunged with the knife, but I hardly think it entered the invisible fin, or tail, or paw of the monster; but it moved away from the screaming man, and the next moment I received a blow in the face that sent me aft six feet, flat on my back. Then came unconsciousness.

"When I recovered my senses, the remnant of the crew were around me, but the man was gone —dragged out of the bight of the

rope that had held him against the force of breaking seas, and down to the flooded main deck, to die like the others. It was too dark to see, or do anything; so, when I could speak I ordered all hands but one into the flooded cabin where, in the upper berths and on the top of the table, were a few dry spots.

"I filled and lighted a lantern, and gave it to the man on watch with instructions to hang it to the stump of the mizzen and to call his relief at the end of four hours. Then, with doors and windows closed, we went to sleep, or tried to go to sleep. I succeeded first, I think, for up to the last of consciousness I could hear the mutterings of the men; when I awakened, they were all asleep, and the cabin clock, high above the water, told me that, though it was still dark, it was six in the morning.

"I went on deck; the lantern still burned at the stump of the mizzenmast but the lookout was gone. He had not lived long enough to be relieved, as I learned by going below and finding that no one had been called.

"We were but six, now—one sailor and the bos'n, the cook and steward, the professor and myself."

The old artist paused, while he refilled and lighted his pipe. I noticed that the hand that held the match shook perceptibly, as though the memories of that awful experience had affected his nerves. I know that the recital had affected mine; for I joined him in a smoke, my hands shaking also.

"Why," I asked, after a moment of silence, "if it was a deep-sea creature, did it not die from the lesser pressure at the surface?"

"Why do not men die on the mountaintops?" he answered. "Or up in balloons? The record is seven miles high, I think; but they lived. They suffered from cold, and from lack of oxygen—that is, no matter how fast, or deeply they breathed, they could not get enough. But the lack of pressure did not trouble them; the human body can adjust itself.

"Conversely, however, an increase of pressure may be fatal. A man dragged down more than one hundred and fifty feet may be crushed; and a surface fish sent to the bottom of the sea may die from the pressure. It is simple; it is like the difference between a weight lifted from us and a weight added."

"Did this thing kill any more men?" I asked.

"All but the professor and myself, and it almost killed me. Look here."

He removed his cravat and collar, pulled down his shirt, and exposed two livid scars about an inch in diameter, and two apart.

"I lost all the blood I could spare through those two holes," he said, as he readjusted his apparel, "but I saved enough to keep me alive."

"Go on with the yarn," I said. "I promise you I will not sleep to-night."

"Perhaps I will not sleep myself," he answered, with a mournful smile. "Some things should be forgotten, but as I have told you this much, I may as well finish, and be done with it.

"It was partly due to a sailor's love for tobacco, partly to our cold, drenched condition. A sailor will starve quietly, but go crazy if deprived of his smoke. This is so well known at sea that a skipper, who will not hesitate to sail from port with rotten or insufficient food for his men, will not dare take a chance without a full supply of tobacco in the slop chest.

"But our slop chest was under water, and the tobacco utterly useless. I did not use it at the time, but I fished some out for the others. It did not do; it would not dry out to smoke, and the salt in it made it unfit to chew. But the bos'n had an upper bunk in the forward house, in which were a couple of pounds of navy plug, and he and the sailor talked this over until their craving for a smoke overcame their fear of death.

"Of course, by this time, all discipline was ended, and all my commands and entreaties went for nothing. They sharpened their knives, and, agreeing to go forward, one on the starboard rail, the other on the port, and each to come to the other's aid if called, they went up into the darkness of ashes and rain. I opened my room window, which overlooked the main deck, but could see nothing.

"Yet I could hear; I heard two screams for help, one after the other—one from the starboard side, the other from the port, and knew that they were caught. I closed the window, for nothing could be done. What manner of thing it was that could grab two men so far apart nearly at the same time was beyond imagining.

"I talked to the steward and cook, but found small comfort. The first was a Jap, the other a Chinaman, and they were the old-fashioned kind—what they could not see with their eyes, they could not believe. Both thought that all those men who had met death had either drowned or died by falling. Neither understood—and, in fact, I did not myself—the theories of Herr Smidt. He had stopped his cheerful humming to himself now, and was very busy with his instruments.

" 'This thing,' I said to him, 'must be able to see in the dark. It certainly could not have heard those two men, over the noise of the wind, sea, and rain.'

" 'Why not?' he answered, as he puttered with his wires. 'Cats and owls can see in the dark, und the accepted explanation is that by their power of enlarging der pupils they admit more light to the retina. But that explanation never satisfied me. You haf noticed, haf you not, that a cat's eyes shine in der dark, but only when der cat is looking at you?—that is, when it looks elsewhere you do not see der shiny eyes.'

" 'Yes,' I said, 'I have noticed.'

" 'A cat's eyes are searchlights, but they send forth a visible light, such as is generated by fireflies, und some fish. Und dere are fish in der upper tributaries of der Amazon which haf four eyes, der two upper of which are searchlights, der two lower of which are organs of percipience or vision. But visible light is not der only light. It is possible that the creature out on deck generates the invisible light, and can see by it.'

" 'But what does it all amount to?' I asked impatiently.

" 'I haf told you,' he answered calmly. 'Der creature may live in an atmosphere of ultraviolet light, which I can generate mineself. When mine plates dry, und it clears off so I can see what I am doing, I may get a picture of it. When we know what it is, we may find means of killing it.'

" 'God grant that you succeed,' I answered fervently. 'It has killed enough of us.'

"But, as I said, the thing killed all but the professor and myself. And it came about through the other reason I mentioned—our cold, drenched condition. If there is anything an Oriental loves above his ancestors, it is his stomach; and the cold, canned food was palling upon us all. We had a little light through the downpour of ashes and rain about midday, and the steward and cook began talking about hot coffee.

"We had the turpentine torch for heating water, and some coffee, high and dry on a shelf in the steward's storeroom, but not a pot, pan, or cooking utensil of any kind in the cabin. So these two poor heathen, against my expostulations—somewhat faint, I admit, for the thought of hot coffee took away some of my common sense—went out on the deck and waded forward, waist-deep in the water, muddy now, from the downfall of ashes.

"I could see them as they entered the galley to get the coffee pot, but, though I stared from my window until the blackness closed down, I did not see them come out. Nor did I hear even a squeal. The thing must have been in the galley.

"Night came on, and, with its coming, the wind and rain ceased, though there was still a slight shower of ashes. But this ended toward midnight, and I could see stars overhead and a

clear horizon. Sleep, in my nervous, overwrought condition, was impossible; but the professor, after the bright idea of using the turpentine torch to dry out his plates, had gone to his fairly dry berth, after announcing his readiness to take snapshots about the deck in the morning.

"But I roused him long before morning. I roused him when I saw through my window the masthead and two side lights of a steamer approaching from the starboard, still about a mile away. I had not dared to go up and rig that lantern at the mizzen stump; but now I nerved myself to go up with the torch, the professor following with his instruments.

" 'You cold-blooded crank,' I said to him, as I waved the torch. 'I admire your devotion to science, but are you waiting for that thing to get me?'

"He did not answer, but rigged his apparatus on the top of the cabin. He had a Wimshurst machine—to generate a blue spark, you know—and this he had attached to the big deck light, from which he had removed the opaque glass. Then he had his camera, with its rock-crystal lens.

"He trained both forward, and waited, while I waved the torch, standing near the slump with a turn of rope around me for safety's sake in case the thing seized me; and to this idea I added the foolish hope, aroused by the professor's theories, that the blinding light of the torch would frighten the thing away from me as it does wild animals.

"But in this last I was mistaken. No sooner was there an answering blast of a steam whistle, indicating that the steamer had seen the torch, than something cold, wet, leathery, and slimy slipped around my neck. I dropped the torch, and drew my knife, while I heard the whir of the static machine as the professor turned it.

" 'Use your knife, mine friend,' he called. 'Use your knife, und reach for any blood what you see.'

"I knew better than to call for help, and I had little chance to use the knife. Still, I managed to keep my right hand, in which I held it, free, while that cold, leathery thing slipped farther around my neck and waist. I struck as I could, but could make no impression; and soon I felt another stricture around my legs, which brought me on my back.

"Still another belt encircled me, and, though I had come up warmly clad in woolen shirts and monkey jacket, I felt these garments being torn away from me. Then I was dragged forward, but the turn of rope had slipped down toward my waist, and I was merely bent double.

"And all the time that German was whirling his machine, and shouting to strike for any blood I

saw. But I saw none. I felt it going, however. Two spots on my chest began to smart, then burn as though hot irons were piercing me. Frantically I struck, right and left, sometimes at the coils encircling me, again in the air. Then all became dark.

"I awakened in a stateroom berth, too weak to lift my hands, with the taste of brandy in my mouth and the professor standing over me with a bottle in his hand.

" 'Ach, it is well,' he said. 'You will recover. You haf merely lost blood, but you did the right thing. You struck with your knife at the blood, and you killed the creature. I was right. Heart, brain, und all vital parts were in der stomach.'

" 'Where are we now?' I asked, for I did not recognize the room.

" 'On board der steamer. When you got on your feet und staggered aft, I knew you had killed him, and gave you my assistance. But you fainted away. Then we were taken off. Und I haf two or three beautiful negatives, which I am printing. They will be a glorious contribution to der scientific world.'

"I was glad that I was alive, yet not alive enough to ask many more questions. But next day he showed me the photographs he had printed."

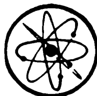
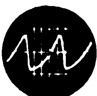
"In Heaven's name, what was it?" I asked excitedly, as the old artist paused to empty and refill his pipe.

"Nothing but a giant squid, or octopus. Except that it was bigger than any ever seen before, and invisible to the eye, of course. Did you ever read Hugo's terrible story of Gilliat's fight with a squid?"

I had, and nodded.

"Hugo's imagination could not give him a creature—no matter how formidable—larger than one of four-feet stretch. This one had three tentacles around me, two others gripped the port and starboard pinrails, and three were gripping the stump of the mainmast. It had a reach of forty feet, I should think, comparing it with the beam of the craft.

"But there was one part of each picture, ill-defined and missing. My knife and right hand were not shown. They were buried in a dark lump, which could be nothing but the blood from my veins. Unconscious, but still struggling, I had struck into the soft body of the monster, and struck true."

ON THROWING A BALL

by Isaac Asimov

SEVERAL YEARS AGO, I DELIVERED A talk at my old alma mater, Columbia University, which went very well indeed, I am glad to say, and after it was over, some of the students in the audience came up to give me a very special present.

It was a sweatshirt. On the front of it was a picture of Isaac Newton with his name in bold letters underneath. On the back, moreover, was the eloquent legend: $f = ma$.

You can well imagine that I was delighted to receive it and that I wear it at every appropriate opportunity.

To be sure, I don't have quite as many opportunities to do so as a teen-ager would. At my advanced age (somewhat over thirty, if you're curious), my social engagements tend to be of a type at which colorful sweatshirts are frowned upon.

Yet I manage. Every once in a while, I wear it, and when I do, the rest of the party suffers agonies, for I attract attention. I'm not aware of this myself, you understand, for as a result of a long lifetime spent in strenuous and nearly exclusive preoccupation with what goes on inside my skull, I have learned to be oblivious to the outside world. A small matter like being followed by puzzled, whispering teen-agers leaves me untouched.*

Mostly, what seems to attract their attention is not the picture of Isaac Newton (who, to them, is clearly a rock-and-roll sensation since he has long hair) but the mystic legend on the back. I imagine they

** Actually, this is by no means the worst sweatshirt I own. Half a year ago, one of the many beautiful girls at Doubleday & Co. presented me with a sweatshirt on which was written in bold, white block letters: ISAAC ASIMOV IS A GENIUS. I am ashamed to admit that I don't quite have the guts to wear it in public. I have always thought that my immodesty was limitless, but apparently it isn't.*

try to work out its meanings and speculate on its possible obscene significance (the times being what they are).

So why not explain it here?

Let's begin by throwing a ball. The ball is motionless when you start moving your arm, but by the time it leaves your hand it is travelling at a respectable speed. In the time that you are engaged in the act of throwing it, it was gaining speed from zero at the start to whatever amount it had when it sailed out of your clutching fingers. Such a gain of speed is called an "acceleration."

(It is better, actually, to speak of "velocity" instead of speed. Velocity is a combination of speed and direction; if you speak of "constant velocity" you mean motion at a constant speed *and* in an unchanging direction. Any change in velocity, whether involving a change in speed, a change in direction, or both, is an acceleration.)

But in accelerating the ball, we have had to make an effort. The ball will not accelerate without one. It will not suddenly, all by itself, stop being motionless and begin to go faster and faster. We have to *throw* the darn thing to make it do so. What's more, the effort we make has to be applied to the ball. We can make all the throwing motions we want, but if the ball is lying ten feet away while we are doing so, nothing will happen to the ball. What's more, when we do throw the ball, that ball accelerates in the direction we are throwing.

Making an effort and applying that effort directly to an object is to exert a "force" on that object, so what we are saying is: An object can be made to accelerate if, and only if, a force is exerted upon it, and the acceleration so produced is in the direction of the force.

A statement like that is sometimes called a "law of nature," but that always strikes me as too portentous a title. It is simply a generalization. It is the common experience of mankind that acceleration and force go together.

But back to the ball! If we throw harder, the ball is made to go faster at the time it leaves our hand. The change in velocity while we were throwing is greater. In short, the greater the force, the greater the acceleration. Again, this is the common experience of mankind.

In fact, when physicists began to measure force and acceleration with precision, they found that if exactly twice the force was applied to a particular body, then exactly* twice the acceleration was achieved;

* *Well, not* quite *exactly. Einstein's relativity introduces a correction that is vanishingly small under ordinary circumstances, but this article is devoted to the Newtonian approximation and I am ignoring, for now, the better Einsteinian approximation.*

if exactly n times the force, then exactly n times the acceleration.

A short way of saying this is: Acceleration is directly proportional to force.

An even shorter way is to make use of mathematical symbols. Let acceleration be represented by a and force by (what else?) f. To represent direct proportionality, we make use of a wiggly mark, $\sim$. So we write:

$$a \sim f \qquad \text{(Equation 1)}$$

Let's pass on. What if we try throwing different objects. Suppose we throw a tennis ball with a certain amount of effort; then (to the best of our judgment) use just the same effort to throw, in succession, a baseball, a softball, and a shot (one of those metal spheres that shotputters love to heave).

You know that using the same force, you will not be able to make the baseball go as fast as the tennis ball. The softball will go slower still and the shot will hardly move.

It is the common experience of mankind, then, that a given force will accelerate a heavy object *less* than it will a light object. In fact, if you make measurements you will find that if x is twice as heavy as y, then a given force will accelerate x just half as much as y; if x is three times as heavy as y, x will be accelerated just a third as much as y and so on.

You might argue this point at once, maintaining that if this were so, then a feather, much lighter than a baseball, ought to be accelerated correspondingly more, so that with equal effort we could make a feather move much more rapidly than a baseball. And we know that's not so. Nothing we do will make a feather move quickly.

But then our throwing arm is not the only force upon the feather. Air resistance sets up a force in the direction opposite to the one we are exerting with our arm. For reasons we need not go into, this counter-force is much more effective on a light object such as a feather than on a relatively heavy one such as a baseball. It's the *net* force that counts; the force that is left over, after all forces are taken into account, that controls the acceleration.

Again, if you try to push a very heavy object across a floor you may think a small acceleration ought to be produced; yet instead *none at all is*. The object won't budge no matter how long and steadily you push. This time there is a frictional force countering the one you exert, and this one is more effective where heavy objects are concerned than light ones (all other things being equal).

In short, real life is rather complicated, and that is why it took a couple of millennia of hard thought before some apparently simple generalizations of motion were worked out. It took transcendent genius to cut away the extraneous complications.

If we now ignore those extraneous complications, we can say that the heavier an object is, the less acceleration a given force will induce in it.

But let us not say "heavier" because this will raise complications. Let us instead invent the word "mass," which we can define as follows: "Mass is a property of a body which affects the acceleration induced on that body by a given force; the greater the mass, the correspondingly smaller the acceleration." (It turns out that under ordinary circumstances, the phrase "more massive" is roughly equivalent to what we mean when we say "heavier"; "less massive" to "lighter.")

The greater the mass of a body, the more difficult it is to accelerate it; that is, to alter its velocity. The resistance to change in velocity is spoken of as "inertia." This means, then, that the greater the mass of a body the greater its inertia. In fact, by definition, mass and inertia are different names for exactly the same property.*

If, then, for a given force, acceleration gets smaller as mass gets larger, we can say that acceleration is inversely proportional to mass.

To see how that might be presented in mathematical shorthand, let's represent mass as m and consider the quantity $1/m$. As m gets larger: 2, 3, 4, 5 and so on, $1/m$ gets smaller: 1/2, 1/3, 1/4, 1/5 and so on. In fact, $1/m$ gets smaller as m gets larger in exactly the same way that acceleration gets smaller as m gets larger.

If two variables are each inversely proportional to a third variable, then the two variables are directly proportional to each other. By which I mean that if acceleration and $1/m$ are both inversely proportional to m, then acceleration is directly proportional to $1/m$. We can say, then, that:

$$a \sim 1/m \qquad \text{(Equation 2)}$$

If acceleration is directly proportional to each of two different quantities, then it is directly proportional to the product of those

The late E. E. Smith, in his classic "Skylark of Space" postulated an inertia-free drive to get around the speed-of-light limit for space travel. Ordinary mass, with inertia, cannot go faster than light, he suggested, but mass without inertia can go at any velocity, however great. It was a fascinating suggestion and I loved it, but if we look at it in the hard light of reality, we must admit that mass without inertia is equivalent to mass without mass—a contradiction in terms. (At least, so it seems.)

quantities. In other words, if a is directly proportional to f and to $1/m$ (see Equations 1 and 2), then it is directly proportional to $f \times 1/m$, which means to f/m. We can say, then, that:

$$a \sim f/m \qquad \text{(Equation 3)}$$

When two properties are related by a direct proportionality, it means that as one grows larger (or smaller) the other grows correspondingly larger (or smaller). Yet one might be consistently twice as large as the other, or five times as large, or 1.752 times as large. However much both grow larger or smaller in perfect step, the ratio of size remains the same. It stays two or five or 1.752 or whatever it is.

In order to change a direct proportionality to an equality, therefore, one might discover what that constant ratio is and multiply the appropriate side of the equation by that ratio.

If we don't happen to know just what the ratio is in a particular case, we can give it the general name of "proportionality constant" and symbolize it, usually, but not always, as k. (Why k? That was adopted from the Germans, who spell constant, "konstant.")

If, then, we multiply the right-hand side of Equation 3 by such a proportionality constant, we establish an equality and we can write:

$$a = kf/m \qquad \text{(Equation 4)}$$

The presence of the proportionality constant is a pain in the neck, and physicists do their best to get rid of it by some legitimate means. In this case, we can choose the units of acceleration, force and mass in such an interconnected way* that k will work out to be unity. And of course, when a number of terms are multiplied together and one of them has a value of 1, it doesn't affect the product and can be omitted. *Provided we keep the units properly interconnected,* we can write Equation 4 as:

$$a = f/m \qquad \text{(Equation 5)}$$

By simple algebraic manipulation, Equation 5 can be converted into:

$$f = ma \qquad \text{(Equation 6)}$$

and that (*aha-a-a-a-a-a*!!) is what is on the back of my sweatshirt.

The connection with Newton is not hard to explain. All this stuff that seems so simple *now* is only simple because Isaac Newton ex-

** Please take my word for it here, but I discussed units somewhat in C FOR CELERITAS, November 1959, if you're interested.*

plained it first in his book "Principia Mathematica," published in 1687. What I present you with in Equation 6 (and on the back of my sweatshirt) is the simplest expression of Newton's "Second Law of Motion."

Why Second Law? Because there is a First Law.

One way of stating Newton's First Law of Motion is this: "If a body is not acted on by a force, it will remain at rest, or, if it is already in motion, it will maintain a constant velocity, changing neither its speed nor its direction of travel."

A constant velocity implies zero acceleration. Newton's First Law of Motion therefore reads, using mathematical shorthand, "If $f = 0$, then $a = 0$."

But if we look at Equation 6, we can see that (assuming a body has *some* mass) that if $f = 0$, then a *must* equal 0:

$$0 = m \times 0 \qquad \text{(Equation 7)}$$

It turns out, then, that Newton's First Law of Motion is merely a special case of Newton's Second Law, and Equation 6 is an adequate expression of both the First *and* Second Law of Motion. (Why bother with a First Law then? Couldn't Newton see it was mathematically unnecessary? Sure, he could. The thing was, though, that he was busy establishing a new world-picture and he had to knock down the old world-picture first. The First Law destroyed the keystone of the old system and so it was psychologically necessary to present it first.)

There is a Third Law of Motion, also advanced by Newton, which states that if Body A exerts a certain force on Body B, then Body B exerts an equal force (but in the opposite direction) on Body A.

This is usually called the "Law of Action and Reaction," and if ever there was an unfortunate name that's it. It gives an utterly false impression that has confused innumerable people.

The phrase "Action and Reaction" makes it sound as though A acts on B and *then* B re-acts on A. It is as though A is taking the initiative and B only strikes back in a kind of self-defense after it has been attacked—charge and counter-charge, thrust and riposte, gambit and return.

This has led men into time-wasting blind alleys. They have reasoned: After A acts on B, it must take a finite (though possibly very small) time for B to re-act on A; and if I can only make the system do something after A acts on B but before B re-acts on A then I can break

the law of conservation of momentum or do something equally world-shaking. The trouble is that there is no action-and-reaction with two bodies acting independently. The Third Law should be called "The Law of Interaction" for both bodies act *together*.

Rather than argue it out, I will give you an analogous case. Suppose I tell you that Asimov's Law of Contact goes: If A touches B, then B touches A.

Do you think that A first touches B and then B counter-touches A? Do you think that there is a small but finite interval between A's touching of B and B's touching of A? Do you think that you can in any way relate the touch to either A or B alone? Or must you consider the touch as involving both together and inseparably?

Okay then, I'm sure you get the point.

Now that we have the Laws of Motion, let's consider gravitation, which Newton also took up in "Principia Mathematica" and which was the subject of last month's article.

If, instead of throwing a ball, we held it in the air and simply let go, it would move downward with smoothly increasing speed. It would, in other words, accelerate downward. The Second Law of Motion holds that an acceleration can't exist without a force bringing it about. Therefore, to avoid breaking the Second Law, we find it necessary to postulate a "gravitational force" in the direction of the Earth's center that acts on all masses. To symbolize the very special gravitational force, let us use the capital form of the letter and call it F.

If the strength of the gravitational force were fixed regardless of the nature of the falling body, then a more massive body would accelerate less (that is, would fall more slowly) than a less massive one. This would be expressed most simply in Equation 2.

But this is not so. The Italian scientist, Galileo, nearly a century before the "Principia Mathematica" was published, conducted experiments which showed quite conclusively that all bodies of whatever mass, accelerate equally as they fall (if we neglect air resistance).

Well, if Body A is twice as massive as Body B, then it takes twice the force to make Body A accelerate by a given amount as it would take to make Body B accelerate by that amount. If body A is five times as massive as Body B, it takes five times the force for A as for B, and so on.

Therefore, if Galileo's demonstration is correct and all bodies of whatever mass accelerate downward equally as they fall, the gravitational force produced by the Earth is directly proportional to the mass of the falling body. Or:

$$F \sim m \qquad \text{(Equation 8)}$$

But by Newton's Third Law of Motion, if the Earth is exerting a force downward on the falling body, the falling body is exerting an equal force upward on the Earth.

This means that the Earth is accelerating upward as the falling body accelerates downward. However, the Earth is more massive than the falling body and accelerates to a correspondingly lesser degree. (I can hear you saying: But you just said that all bodies of whatever mass accelerate *equally*.—Yes, to the Earth's gravitational pull. All bodies of whatever mass also accelerate equally to the falling body's gravitational pull, but the one "equally" is not equal to the other "equally.")

The Earth is so much more massive than the falling bodies we are accustomed to, and therefore accelerates upward so much more slowly than the falling body accelerates downward, that the Earth's acceleration goes unnoticed. This confuses the issue, and it took good old Newton to cut through the complications and see that gravitation was a universal phenomenon and not a property of the Earth alone.

By the Third Law, if the Earth attracts the falling body, the falling body must attract the Earth in symmetrical fashion. If the attracting force depends on the mass of the falling body, it must also depend on the mass of the Earth, for we can't give one side special treatment over the other. If we let the mass of the Earth be represented as M, we can say:

$$F \sim mM \qquad \text{(Equation 9)}$$

The gravitational force also varies with the distance between the two bodies. It is reasonable to suppose that the farther apart the two bodies, the weaker their attraction for each other. We might argue, for instance, that the very simplest situation is that the gravitational force is inversely proportional to the distance of the falling body from the Earth. By the symmetry of the situation, though, it must also be inversely proportional to the distance of the Earth from the falling body. These two distances are obviously equal, and if one is represented by d so is the other. In that case, the gravitational force is inversely proportional to $d \times d$ or d^2; and is directly proportional to $1/d^2$. That is:

$$F \sim 1/d^2 \qquad \text{(Equation 10)}$$

And if we combine Equations 9 and 10, we have:

$$F \sim mM/d^2 \qquad \text{(Equation 11)}$$

To change the direct proportionality into an equality we want to multiply the right-hand side of the equation by a proportionality constant. In this case, let us call it the "gravitational constant" and represent it as G. Equation 11 then becomes:

$$F = GmM/d^2 \qquad \text{(Equation 12)}$$

This represents Newton's law of gravitation, derived as simply as I could manage.

Let's see if we can simplify that equation. We can deal with the gravitational force in terms of acceleration. The Earth's acceleration is so inconceivably minute we can ignore it and deal with the falling body's acceleration only. By Equation 6, we can substitute for F, the expression ma and then cancel m on both sides of the equation. This gives us:

$$a = GM/d^2 \qquad \text{(Equation 13)}$$

Can we get rid of G also? Well, let's solve for G:

$$G = ad^2/M \qquad \text{(Equation 14)}$$

Unfortunately that doesn't help us right away. We can measure the acceleration of the falling body (a), and we can measure the distance between the falling body and the center of the Earth (d), but we don't have the slightest idea as to the mass of the Earth (M).—Or at least Newton didn't.

However, whatever G equals, its value remains the same for all possible values of a, d, and M, provided you always express a, d, and M in a fixed set of units. —In that case, let's deliberately choose a convenient set of units that will enable us to get rid of G.

Suppose we use "Earth-mass" as the unit of mass and "Earth-radius" as the unit of distance and "gravitational-acceleration-unit" as the unit of acceleration. The Earth has a mass of exactly 1 Earth-mass; the distance of the falling body from the center of the Earth is exactly 1 Earth-radius; and the acceleration of the falling body is exactly 1 gravitational-acceleration-unit. In that case:

$$G = 1 \times 1^2/1 = 1 \qquad \text{(Equation 15)}$$

As long as we keep those units, we can eliminate G and write Equation 13 as:

$$a = M/d^2 \qquad \text{(Equation 16)}$$

If we confine ourselves to the Earth, Equation 16 is utterly useless. All it tells us is that for a body with the size and the mass of the Earth, a falling body falls as fast as it is actually observed to fall. Big deal!

But what if we shift to the surface of the Moon. The mass of the Moon is 0.0124 times that of the Earth; that is, it is 0.0124 Earth-masses. The distance of a falling object on the surface of the Moon from the

Moon's center is equal to the Moon's radius, which is 0.27 times that of the Earth's radius. We therefore find from Equation 16 (letting M now represent the mass of the Moon, and d the distance to the Moon's center):

$$a = 0.0124/0.27^2 = 0.17 \qquad \text{(Equation 17)}$$

We see that a falling body on the Moon's surface accelerates downward with 0.17 (roughly ⅙) gravitational-acceleration-units. Put more straightforwardly, a falling body accelerates one-sixth as quickly on the Moon as on Earth and therefore (as one usually says) the surface gravity on the Moon is only ⅙ that on the Earth.

And we know this without having to worry about the gravitational constant.

But we have gotten rid of the gravitational constant only by using very special units. We can actually convert gravitational-acceleration-units into ordinary units involving centimeters and seconds by direct measurement. We can convert Earth-radii into ordinary units involving centimeters, if we wish, by direct measurement. But what do we do with Earth-masses?

That was a special problem which remained unsolved for a century after the "Principia Mathematica." Then it was solved and, if you don't mind, I will end this article exactly as I ended the previous one:

The time was 1798, the place was England, the person was Henry Cavendish, the discussion thereof—well, please be patient.

Coming soon . . .

The lineup for our October 20th Anniversary Issue is not yet complete, but it will definitely include new stories by **Isaac Asimov, Brian Aldiss, Ray Bradbury, Robert Bloch, Philip K. Dick** and **Howard Fast.** We've made a special effort on this anniversary to bring you quality fiction by the top writers in the field, and we find ourselves in the pleasant dilemma of having an abundance of exciting new stories, more than the October issue can hold. Example: a new **Zenna Henderson** story, which will be featured next month. Example: new stories by **Larry Niven, Miriam Allen de Ford, Ron Goulart, Robert Silverberg, Sonya Dorman** and **Robert F. Young,** all of which will be along in the next few months. It's going to be an exciting Fall, and you won't want to miss a single issue, beginning with September, on sale July 31.

Paul Thielen has been associated with various newspapers and magazines for 20 years; his fiction and non-fiction has appeared in several national magazines, including Argosy. *The narrator of this tale is one Ambrose Ledgerwood, who supported himself—somewhat precariously—by betting on sports events. What happens when Ambrose suddenly acquires the ability to control events on the playing field is the subject of this brisk and funny story.*

THE MONEY BUILDER

by Paul Thielen

THERE I WAS, IN A REAR BOOTH of Manny's Bar and Grill, on my afternoon off. Interesting to relate, I was awaiting an appointment with Ambrose Ledgerwood, a man who, until recently, had been a resident of Briarwood, a state institution for the mentally ill.

A stranger to me Ambrose was not. For about twenty years, almost since I began laboring for the *Sentinel*, a newspaper whose building rose in lordly majesty across the street from Manny's, I had savored his acquaintance. Ambrose was a schemer. A short, plumpish, balding man of indeterminate middle age, he supported himself by betting on sports events and pursuing miscellaneous endeavors, none of which were known to exceed the limits of the law. Unless, of course, it could be guaranteed that he would remain immune from prosecution. Ambrose was less concerned with morality than with legality.

This mode of living afforded him brief snatches of life's abundance. He lived in somewhat comic grandeur on a rather shaky economic base. Indeed, there were occasions when his solvency depended on funds acquired by pawning the engagement ring of his fiancee of sixteen years, one Charlene Brinkerhoff, but to Ambrose's undying credit, on each of these occasions he dutifully redeemed it.

Then suddenly Ambrose left town. When he returned it was the same Ambrose but with a new

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bankroll. Mysteriously, he was now a man of means. There were reports of trips around the country, a mink coat for Charlene, who meanwhile proudly acquired the title of Mrs. Ambrose Ledgerwood, and an elegant house in our most exclusive suburb, which, I was told, was appraised at eighty thousand dollars. During this period Ambrose and his money were a boon to all of mankind.

But, sadly, the happy life of Ambrose was of brief duration. It ended on a dusky afternoon in Yankee Stadium, where he was mercifully restrained by two policemen from scrambling his brains against a wooden seat in an upper-deck box.

An ambulance took Ambrose to a hospital, and following a prolonged examination, the courts concluded that the most suitable place for him to spend his future would be Briarwood. This depressed me, for I had always regarded Ambrose as a bright if slightly tarnished spot in the otherwise dreary lives of many. From time to time I'd send him magazines and candy.

When the phone rang at my desk this morning, naturally I was surprised to hear from him.

"Hello, Charlie," the voice said. "This is Ambrose."

"Ambrose?" I said. "The only Ambrose I know is . . ."

"Right. Ambrose Ledgerwood. I'm out. Released. I'm down at the bus station now." His voice dropped and in a conspiratorial tone he added, "Listen, I have something that you will find exceedingly interesting. Meet me at Manny's at two." Then the phone clicked in finality.

That's why I was sitting in Manny's on my afternoon of freedom. I told myself that maybe I owed it to Ambrose. I recalled occasions during his period of affluence when he persisted in presenting me with small gifts. Once he sent a case of Scotch around to my house, a largesse to which absolutely no strings were attached.

It was just one minute after two when Ambrose walked in the door at Manny's, accompanied by his long-time friend, Malcolm Rappaport, known to a certain element in our town as Malcolm the Philosopher. His performance of various services for Ambrose was reminiscent of that of an equerry to his noble monarch.

Ambrose was greeted without enthusiasm by Manny, who looked up sourly from behind a column of figures he was totaling, but the bartender, Sam, and several patrons, all of whom had known Ambrose in his brighter days, welcomed him with undisguised joy. He acknowledged these greetings with courtly demeanor, but his eyes swept the booths until they came to rest on me.

Ambrose excused himself, and

he and Malcolm came over. "Ah, Charlie," he said, extending a soft and well-manicured hand, "a delight to see you. You know, of course, my friend and companion, Malcolm Rappaport." He sat down and called over to Sam, who was massaging the bar with a Turkish towel. "A dash of straight bourbon for me, and a beer for Malcolm," he commanded in the imperial manner I was beginning to recall.

"Well, Charlie," he said. "No doubt you were astonished to hear from me after all this time. Well, I can tell you these past twenty-six months were no picnic. They incarcerated me in a loony bin, as you know, and treated me as though I had flipped my lid, to use the vernacular. Me, a man whose mind is as sharp as a surgeon's scalpel. Oh, I tell you, Charlie, the indignities I suffered would have driven a lesser man into a premature grave." He sighed in weary resignation and swallowed his drink in one neat motion.

"But I digress. As I told you on the phone, I have a proposition that, with a minimum investment, will bring you a return whose proportions can be likened only to the sands of the desert."

"Yeah, sure," I said, wondering how I could escape this dreary narrative. "Ambrose, you're looking great. That stay in the hospital did wonders for you. Now I've got to catch a commuter train. I wanted to see you, but I've got a lot to do. Why don't you call me next week? We'll have lunch, or something."

"Ah, Charlie, I see that my reference to a small investment has sowed the seeds of apprehension. However, my friend, this is the opportunity of a lifetime. As Malcolm here well knows, the possibilities are limitless."

Malcolm nodded sagely. "The bread of the ages wears best," he intoned somberly.

"What?" I said. "The bread of the ages what?"

"Do not attempt to analyze," said Ambrose. "No doubt you have forgotten Malcolm's propensities for philosophical utterances. This is where he acquired his nickname, you know."

"Perfection is only as good as it was," Malcolm added.

Ambrose called over to Sam again. "The same all around, and whatever it is for my friend, Charlie." He turned to me. "Listen. I have a story to relate that will astound and fascinate you, and hold forth the promise of vast sums of money. There are only two people on this earth, Malcolm and myself, who share this knowledge. We have agreed that you shall be the third."

"Look, Ambrose," I said. "My train. Remember?"

"Tut, tut, my friend. A moment more. Reflect. Recall my financial situation of some thirty months

ago. Do you not remember that at the time I possessed a good deal of the world's luxuries?"

"Yes," I admitted. "I never did know, though, where you latched on to that kind of money."

"Nor does anyone else," said Ambrose. "But you will when you hear my story. And I can assure you that the source of that treasure is also available to you. However, I must warn that you will find some difficulty in accepting the veracity of my statements, so fantastic may they appear.

"I have related this story about two hundred times to maybe fourteen different doctors, and while they each nodded politely to me, it was evident that they had me classified as a kook. After a while I realized that the only way I could escape that loony bin was to tell them I could not recall my original story. Finally they concluded I'm sane now, so they let me out."

Ambrose put away another drink and gestured to Sam for refills. "Funny thing, Charlie," he said, "I tell them the truth and they lock me up. I render a large lie and they release me. Ironic, is it not?"

"Ah, yes," agreed Malcolm. "The dog that barks the loudest will refuse the ripened fruit."

"So, Charlie," said Ambrose, "I am prepared to tell it to you just like it happened. You wish to listen?"

"Go ahead, Ambrose," I said. "I missed my train anyhow."

You will possibly recollect (Ambrose began) about three years ago I was in rather desperate straits. I did not hit a bet for some time, and I dropped a bundle when the Yankees lost four straight to the Baltimores. I was six months behind in my room rent and I owed everyone in sight. Some people were beginning to make ominous noises, so discretion induced me to drop out of sight for a while.

Then as now, my sister Alice was living on a farm near Maple Falls, Wisconsin. The reason she is there is that during World War Two she had the ill fortune to make the acquaintance of Private Fat Gordon Fleck at a local USO. He was a large lout with a posterior of the general dimensions of a cello. He was stationed at nearby Fort Scott, where he was assigned to pick up garbage around the base. Well, after the hostilities she was stupid enough to become his bride and accompany him to his family farm. Since then she has been occupied with raising corn and wheat and three daughters, each of whom has long since left the premises.

Although from the start I regarded Fat Gordon as the kind of guy who should be avoided like the plague, circumstances forced me to seek sanctuary at his farm. This was a run-down place that

with a few improvements could have been the set for *The Grapes of Wrath*. The house needed several coats of paint. The barn where Fat Gordon kept his cows was even more dilapidated. It had so many holes in the walls that when he milked these creatures in the Wisconsin winter, I suspect that out came ice cream. He was fatter than ever, which I considered unnatural for a farmer, and it established that Fat Gordon was not only stupid, but also lazy.

As a condition of my refuge there, I was compelled to perform labor for Fat Gordon. It was not pleasant. All the while he was complaining that I did not do this right, or I was too slow at that. As you may imagine, I did not consider this the glory period in my life. On occasion Alice would slip me a buck or two from the egg money, and when Fat Gordon was asleep, I'd take the pickup truck and journey into Maple Falls for a few beers.

On one of these nights I was returning home about midnight, meditating on my unhappy status. I pulled into the driveway and parked near a tool shed that adjoined the barn. Then I heard a groan and out of the darkness I saw a form staggering toward me. I was too scared to run and such a paralysis gripped my throat that I could not utter a sound. To say that I was terrified is an accurate summation of my condition.

My eyes were working okay, though, and I could see that this was a youngish guy, about thirty, maybe thirty-five, and more than slightly handsome. He certainly did not look sinister. As he neared me, suddenly he gasped and collapsed on the ground. "Help me," he whispered, and pointed vaguely at the shed. "Is there an electrical outlet in there?" His voice was so weak I could scarcely hear him.

"Yeah, sure," I said, although I could not imagine why this guy cared.

"Get me in there," he gasped. He was muttering something I did not understand. He looked bad. I bent down to help him up and all of him came with it. I swear this guy weighed no more than a Sunday paper even though he was over six feet tall. I carried him with no strain whatsoever.

I took him inside and placed him on Fat Gordon's workbench. He reached in his pocket and with great effort pulled out what looked like an extension cord. "Plug this in the outlet," he whispered, feebly.

I did as he requested. There was a soft, whirring sound and the lights dimmed for a moment. I looked at this guy. He grinned at me. He reached over and pulled out the plug. "Thanks," he said, and his voice was strong now. "That was close."

I started to help him up, but

I could hardly budge him. Now, all of a sudden, he weighed about one eighty. He grinned again at my bewilderment. The cord snapped back into his pocket and he jumped nimbly off the workbench.

I was somewhat surprised at this exhibition. "Who are you?" I asked. "What are you doing here? What is this bit with the electric plug?"

I could see he was engaged in some robust mental exercising as he pondered his reply. He sighed. "Already I have violated all of the cardinal rules, and I've been here only a brief moment. I'm not supposed to let you see me get recharged, or about the weight differential. I'm supposed to be unobtrusive. I'm supposed to be just another citizen. As a matter of fact, I'm supposed to be in Australia right now."

I did not answer. I just stood and stared at him. I considered briefly that maybe I should awaken Fat Gordon and we should summon the sheriff. I suspected that we had on our hands a dangerous escapee from a nut house. I began to edge away.

"Do not be alarmed. You are in no danger," he said. "I assure you that I am not a maniac. And what's more, if you wake up Fat Gordon now, he will insist that you begin your working day. Let him sleep."

I almost dropped my upper plate. This guy was reading my mind. I staggered over and leaned against the pickup. I figured that if I took a few deep breaths, maybe this would pass over.

"Relax, my friend. It merely happens that I can tune into your brain waves. Where I come from we all can." He was enjoying my astonishment. "Perhaps you'd better sit down," he advised. "Since you saved my life, I am indebted to you, and I suspect that you are the kind of individual who will make my stay here entertaining. You ask who I am. I am an Emdorian."

"Emdorian? What's an Emdorian?"

"Emdoria is a planet in another galaxy. Your astronomers haven't discovered it yet."

"You are from outer space? How come you're not green? Where's the antenna sticking out of your head? Where is your flying saucer?"

He was highly amused. "Well," he said, "first of all we're not green. We're identical to you in physical appearance. We do not have antennae, either. What makes us adapt to this atmosphere is a little piece of metal that contains sixteen elements that transfer your oxygen to a substance we require. This is placed in our chests by surgery, along with a receiver for electricity. All we need is a small recharge every zobot—that's about twenty-five days as you compute time. And the other question?"

"The flying saucer. You know, the spaceship."

"We rarely use large ships these days," he said. "For vacation visits we take individual vehicles that upon landing fold up to about the size of one of your loaves of bread. It is a simple device with only four instruments. Unfortunately, through carelessness, mine received a severe battering when I landed, and although I folded it up and dropped it down that old well over there, it will be unserviceable for my return."

I continued to gape at him. "Are you guys going to take over the earth?" I asked, finally.

He laughed like this was the funniest joke he ever heard. "Ho, ho," he roared. "We wouldn't touch you with a ten-negtz pole, to quote an old Emdorian saying."

Suddenly I thought of a good one. "How come we're talking like this? How do you know English?"

"I speak all the languages on earth, and those on possibly a thousand other planets. Actually I'm speaking Emdorian, but what comes out of my mouth is English. The same would be true if I were talking to a Hungarian, or a Siamese. Or maybe I should say 'Thailander'. I understand they made a change in nomenclature recently."

"What's this about Australia?" I asked. "I recall earlier you said you were supposed to be there."

"Ah, yes." He sighed. "I became a bit careless on my journey over, and neglected to make a change in course at the proper point, which was seven million miles off of Venus. This resulted in a slight change in my trajectory, so instead of alighting in Australia, I ended up here."

"Well," I said, "you could have picked a worse spot than Fat Gordon's farm, I suppose. Off-hand, though, I do not know where this would be. By the way, do you have a name?"

"My name is Ir," he told me.

"All this is very interesting," I said. "Nobody will believe it."

"Perhaps not," he admitted. "Anyway, I'm certain you will not tell. I get the distinct impression that right now you are scheming how I can be of use to you." He laughed, and I was fast developing a large affection for this young man. "Well, no matter. When I leave this planet, I will erase the memory of me and all the things I told you completely from your mind. I'll be here for about a year, according to your calendar, so we'll have ample time for a few laughs. And you appear just like the kind of guy who will provide them."

I will not consume more time relating the lengthy and fascinating conversation which ensued, but it continued until the dawn began to illuminate the sky. Several robust roosters started crow-

ing, and before long Fat Gordon walked out the door, yawning loudly.

He stared at Ir. "Who're you?" he asked, suspiciously.

"A friend of mine," I put in quickly. "I met him in Maple Falls last night and . . ."

"How did you get to Maple Falls?" Fat Gordon demanded.

"In the pickup. Anyway, he is willing to work . . ."

"You pay for the gas?"

"I put in a gallon," I said. "As I say, my friend will work . . ."

"What about oil? Wear and tear on the engine? Tread on the tires?" Fat Gordon asked.

". . . without salary. No pay. Just room and board."

Fat Gordon made a quick stop. "Without salary, you say? Well, now, maybe we can figure out a deal." He looked Ir up and down. "Don't look like no farmer to me." However, since the price was right, he left it at that.

Later, Fat Gordon directed us to begin removing what looked like several million rocks from a field he owned but naturally could not plant. Ir studied the situation, and when Fat Gordon left, he said to me, "Ambrose, would you have access to some copper wire, a little quartz and four or five other minerals normally obtainable on your planet?"

"Well," I said, as I stretched out in the shade of a huge tree, "my associate, Malcolm Rappaport, back in the city, has a great talent for acquiring uncommon items. I will telephone him this afternoon when Fat Gordon goes into Maple Falls to buy feed. What do you want this material for?"

"A little device I have in mind to ease our work," said Ir.

I finally reached Malcolm, who this day was engaged in transferring a hot fur-piece from one party to another. After four or five calls the operator at length located him, and following a long preliminary in which Malcolm agreed to pay the toll charges, we held our conversation.

Malcolm, of course, was delighted to hear from me. We exchanged the normal pleasantries and then I got to the business at hand. I read off the items on Ir's list, which included some things that Malcolm asserted he would obtain from his nephew, Milton, a senior student at M.I.T.

About a week later a box addressed to me was delivered at the farm. Fat Gordon was highly curious. Also suspicious.

When we finished our evening meal, which as usual was accompanied periodically by deep bass burps from Fat Gordon, Ir and I adjourned to the tool shed. "We must get my vehicle that's folded up and is now at the bottom of the old well," Ir told me. "We need one of the six degravidentroizer transistors which power it. I hope they're not too badly damaged."

I did not know what a degravidentroizer transistor was. In fact, I could not pronounce it. However, I had great confidence in Ir.

As soon as Fat Gordon retired to his bed, we stepped into the barn. "Ambrose," Ir said, "I will show you a small trick."

He unscrewed the light bulb that was suspended from a rafter. "Watch," he said. "You may find this amusing." With that he put the bulb in his mouth. It lit up.

"Merely using some of the stored up energy within me," explained Ir, as I recoiled in amazement. "I must get rid of a lot more. As you know, when my energy is depleted I become almost weightless. I wish to be very light when you suspend me on a string down the old well."

With that, Ir pressed something in the back of his neck and a stream of sparks flew out his mouth. It was very similar to the sparklers the kids wave around on Independence Day. He continued this for about two minutes. "Can't release too much. You remember how it was the night we met."

We found a bale of binder twine, and Ir looped a length of it around his waist. I eased him down the well. He was very light. It was like lowering a bag of bananas.

In a short time I pulled him up. He was holding a little square object that looked like a flash cube for a camera. "Four of the degravidentroizer transistors are smashed," he reported. "Luckily, two look all right. I have one here."

We went back into the shed where Ir took a quick charge, and he set to work. The next morning he showed me his device. It looked like a bunch of wires strung around three posts, with a little mirror and a chunk of something that resembled cloudy glass. All of this was hooked to what Ir called the degravidentroizer transistor. The whole thing was about the size of a pocket radio.

"What's this supposed to do?" I asked.

"Well, for one thing, it'll move our rocks," said Ir. "Let us adjourn to the field and run a test."

I know you will have difficulty in believing this, but when Ir aimed his gadget at the biggest rock lying in the middle of the field, it raised out of the ground and started rolling to the side where we had already piled a lot of other ones. "How about that, Ambrose?" said Ir.

"Capital," I said. "Ir, you are a wizard."

"Not at all," he said. "This is a rather primitive version of what we call a 'gravitalterator', no more than a toy in Emdoria, but with what I had to work with, it's not bad."

He explained that this gadget diverted the force of gravity, en-

larging or decreasing it as he turned the two knobs on the device. "I can create a force-field, too, but it probably cannot withstand great pressure," he said. "After all, this is operating on a limited energy supply."

That afternoon Ir aimed the gravitalterator at maybe fifty more rocks and obediently they rose and rolled over to the side. He even maneuvered them so they piled up, one atop the other. It was a very pleasant way to work.

After supper Ir and I were strolling around the premises, and we went out to the barn where he had concealed the gravitalterator because he had a few adjustments to make.

I sat there gazing at the setting sun and pondered how we could put this marvelous device of Ir's to more practical use. I walked over to the orchard where Fat Gordon allowed me to eat apples that had fallen off the trees. I picked up a couple and tossed one to Ir.

He was pointing his gadget at me. The apple moved through the air toward him, then suddenly veered away. I was naturally astonished at this. "What happened?" I asked.

Ir chuckled. "I merely diverted it with the gravitalterator. The startled expression you get always hands me a laugh."

Suddenly the most brilliant idea of all time struck me. Isaac Newton made a great discovery with an apple; so did Ambrose Ledgerwood. "Hold everything, Ir," I said. "I wish to try something. I will fling my apple at the barn. Make me miss."

I wound up to throw the apple, and since I was only about ten yards away, I was certain to hit it. Ir took aim with the gadget, and I let fly. The apple headed for the barn, then sharply swerved away. I had thrown a curve that swooped like a boomerang!

I was exuberant. "Ir, your gravitalterator is not only a gravitalterator," I said. "It is also a money builder."

The enormity of this thing highly excited me. With this device, I realized, Ir and I could determine the result of any baseball game we attended. We could make every pitcher unhittable. We could make every pop-up in the infield carry into the bleachers. We could divert every line drive to the hands of some fielder. We could do anything!

"I don't precisely understand," Ir said, "but it's obvious you have some sort of angle, and I suspect it's something devious."

I explained about the enormous potential I envisioned with his gravitalterator, and he laughed happily. After a full night of cogitating, I evolved my master plan, but of course I could not put it into operation at the farm. The next morning I said to Fat Gordon,

"My associate and I would like a few days off."

Fat Gordon snickered in an objectionable manner. "You get off every Sunday," he said. He guffawed at his clever retort, then adopted a more kindly tone. "Tell you what," he added. "When you guys finish the field, take a couple days." It was easy to see that Fat Gordon calculated that our holiday was at least two years away.

"And we can borrow the pickup? When we finish getting all the rocks out," I said. "That's the deal?"

"Sure," said Fat Gordon, magnanimously.

In the field after breakfast, Ir operated the gravitalterator in earnest. Before long every rock was rolled off to the side and piled up. There was a stone fence all the way around, courtesy of Ir, neat as a clipped hedge.

"I presume Fat Gordon will be somewhat surprised to see his field," said Ir, smiling in satisfaction.

"We will not have to wait long to find out," I said, as I perceived his form approaching over a small hill. "Here he comes now."

Fat Gordon was waddling toward us, and when he got within range, he stopped short. His eyes popped out two inches. He staggered. His cigar fell out of his mouth. He rubbed his eyes, then stared all around. He blinked, rubbed his eyes again.

"How . . . how . . ." he stuttered. He sounded like two Indians having a conversation. Finally he recovered his speech. "You . . . you guys done this?"

"Who else?" I said. "As I have always maintained, farming is easy once you get at it. And now if you'll excuse us, in accordance with our agreement, my friend and I wish to take a few days off. Where are the keys to the pickup?"

"Wait . . . wait," said Fat Gordon. "Tell you what I'll do. You guys can have a job. With pay. We can make a deal."

"We already made a deal, remember?" I said. "So if we can have those keys we'll be on our way."

"No," Fat Gordon said, scratching his head. "I can't let you go. When I told you you could take off, I didn't figger you to get finished so quick." He shook his head. "No. I need you. The deal is off."

"Fat Gordon," I said. "You are a fink."

He started to walk away, still shaking his head in bewilderment. When he had progressed about fifty feet, Ir picked up his device and aimed it. Fat Gordon came to an abrupt halt. He was struggling as though in the grasp of something he could not escape, which he was, as Ir had him locked in place with the reverse force he put on him. Then Fat

Gordon was rapidly moving backward, meanwhile shouting at an extremely high decibel level. The language he used was disgraceful.

Ir then released the reverse and Fat Gordon was free. He took off like a charging hippopotamus. Ir let him get up a good head of steam. He said, "Watch this, Ambrose. Fat Gordon is about to run into a wall."

I kept watching Fat Gordon and I was surprised to see him move so fast. I was even more surprised when he stopped suddenly and flew backward fifteen feet. "Our force-field is strong enough to resist Fat Gordon," said Ir, smugly.

We went over and helped Fat Gordon to his feet. He moaned in agony. He had a large lump on his knee and was perspiring profusely. He was babbling like an idiot. His mouth twitched. He shook like a man who is attached to a pneumatic drill and cannot let go. It was altogether a pleasant spectacle.

Fat Gordon staggered directly to his bed where he lay in shocked consternation for several days. I changed into my city garb and obtained the keys to the pickup from Alice, and Ir and I took off for urban environs and our great expectations.

The truck managed to limp into Chicago, and we obtained a room at a motel. Ir announced a happy discovery. "I completely forgot about this," he said, reaching in his pocket and coming out with a sheaf of bills. "When I left Emdoria, naturally I was provided with an amount of Australian currency. I presume it has value here."

"Indeed it does," I told him. I expended the last of our resources on cab fare, and we journeyed down the Loop and walked into the first bank we saw.

It was only a matter of minutes to change the Australian dollars into American dollars, as Ir produced all the identification with which he was provided when he embarked. We walked out of there with over forty-two hundred bucks, an adequate stake for the purposes I had in mind.

One problem remained. Ir could not manipulate his gravitalterator in public without arousing the interest of curious bystanders. This, of course, was precisely what it was essential to avoid.

I was pondering this matter as I glanced out the doorway of our motel room, when a car with a family of tourists arrived. From around the neck of one of them hung a camera. I immediately realized that here was the answer. What was more normal than to point a camera? Except that instead of taking a picture, Ir would be taking liberties with the law of gravity.

I jumped into another cab and found the nearest shopping cen-

ter. I bought a camera which I made certain was large enough to encase Ir's gravitalterator.

"Not a bad fit," Ir agreed after he had inserted his gadget. He aimed it at the faucet of the shower. At once the faucet turned and the water poured out. Ir chortled merrily. "Not bad at all."

I picked up the phone and called Louie Amarosa, who is a bookie with whom I have been acquainted for many years, and I learned that the Cubs were eight to five against the Cardinals that day. "Fine, Louie," I said. "I wish to place two gees on the Cubs."

"Two gees?" inquired Louie. "Last I heard of you, Ambrose, you cannot come up with two bits. No doubt you intend to deposit the cash before the game starts."

"By all means, Louie," I said, taking no offense. "I will be there shortly."

I was in a pleasant mood as we rode to the tailor shop that housed Louie Amarosa's operation. I placed our bet, and Ir and I traveled over to Wrigley Field where we obtained two seats behind first base.

The Cardinals jumped off to a two-run lead in the first inning, but naturally I did not worry. In the third, I instructed Ir to take a hand in the proceedings. The Cubs came to bat, and after Baier singled, Voigt hit an easy fly to center field. "Put it in the bleachers," I whispered to Ir.

He pointed his camera. The ball continued its flight while the center fielder, his hands outstretched to catch it, looked highly astonished to see it carry over his head into the third row, where seven kids struggled for the souvenir.

"Must be a strong wind today," a guy sitting behind me said.

"Good work, Ir," I told him. "Take no more pictures for a while."

The score remained tied until the eighth when I decided that it was time for more scoring. Smolinski hit a pop-up which the shortstop awaited confidently. "Move it, Ir," I ordered, and he pointed the camera. As directed, the ball curved toward the foul line where it landed several inches fair. Smolinski puffed into second base.

Bilyeu then hit a grounder to the second baseman, and when Ir took another picture, naturally the ball veered sharply into the space between the two infielders, and Smolinski came in to score. It was now three to two, with the Cubs ahead.

In the ninth we had a bit of trouble. Ehrmann, first up for the Cardinals, belted one between the outfielders in right center before we were prepared, and the ball rolled all the way to the wall. It looked like an easy triple, since Ehrmann was a very rapid mover. "Perhaps you should slow him down," I suggested to Ir.

Once again Ir took a picture, and Ehrmann, who was flying around second base suddenly looked like he was running in place. The ball came in from the outfield as Ehrmann was struggling into third, and he was out by a long mile. This situation so unnerved the Cardinals that the next two hitters were erased with ease. The game ended, and we had earned thirty-two hundred dollars.

The next day the Cubs were nine to five and we wagered four gees on them. Naturally they won. I wished to place ten thousand on the following day at two to one, but Louie declined.

"You already took me for a bundle, Ambrose," he said. "All I can go is six at top and I got to get outside help to cover that."

"As you wish, Louie," I told him, so we placed six thousand on the game. You may recall that was the day that Ancient Alfie Livingston was pitching for the Cubs. Alfie had been around the league for thirteen years and never had a winning season, so I decided to let him enter the record books. Besides, I wished Ir to practice further with his gadget, as I had noted some sloppy work the previous day.

I instructed Ir: "Today nobody gets a hit off Alfie. As a matter of fact, nobody gets on base. You will have to be alert every minute. Do not allow your concentration to stray."

Ir laughed. "Ambrose, this is child's play. Have no fears."

I had given Ir a monumental task. The Cardinals were assaulting Alfie's pitches with abandon. Ir was compelled to convert three home runs into infield pop-ups. Once, when he was late on a line drive over second base, his only recourse was to curve it foul. He induced the ball to make a right-angle turn into the first base stands, a phenomenon that astounded every witness on the premises, as well as a great number of television viewers. This game was the supreme test, and Ir established that he could master any eventuality. Naturally, Alfie never knew that he received a bit of help when he pitched his perfect game.

Thus, we left Chicago with a nice amount of money. We now had a stake of over twenty-five grand after expenses. I sent Fat Gordon a money order for four hundred bucks for the pickup, and I was compelled to pay the motel owner fifty bucks to have it hauled away. We returned to our town, and by the time I cleared up all my outstanding obligations, we still owned over twenty thousand.

Now things moved very fast. My fiancee, Charlene, firmly insisted on matrimony, pointing out that finally we were financially stable, and this was a demand to which I had no adequate rebut-

tal. We did not take a honeymoon for a while, since Ir and I had to attend ball games on which we had placed a wager. I could not explain to Charlene the need for this unorthodox behavior, and she became somewhat miffed. However, when I purchased for her a mink coat, Autumn Haze, full length, she took a more tolerant view.

Of course, I had to cut Malcolm in, since it was only simple justice that his loyalty be rewarded. The money rolled in rapidly. We bought a handsome home in the suburbs, and Charlene was very happy. She took vast satisfaction at the envy she aroused among the girls who worked in the Club Venice where she formerly conducted the hat-check operation. Needless to say, I, too, was overjoyed. I possessed several safe-deposit boxes where I stashed away prodigious amounts of currency. And best of all, the source was limitless.

As you know, I distributed my wealth with some abandon. This I enjoyed, as I repaid favors to many friends of long standing. I even sent ten thousand to Alice, although I was aware that the money would also be enjoyed by Fat Gordon.

Ir, too, was having quite a time. He was as merry as a lush in a distillery. On the days I did not require his services, he amused himself visiting various points of interest. He took delight in making tours through electronics plants and other scientific or industrial sites, although he became somewhat indignant when he was refused a first-hand visit to the goings-on at Cape Kennedy. He was also particularly intrigued with Disneyland, he told me.

Once when I gave him a week off, he was wandering about the West Coast at a time when he required a recharge. One evening, when the night shift was at work, he was roaming through a plant that manufactures generators and other equipment. When nobody was watching, he pulled out his recharge plug and inserted it in an outlet. This gave him the heaviest jolt he ever assimilated, he later related, since this plant was wired with direct current and he was conditioned to receive only alternating current. This blew all the lights in the place, as well as all the lights in five surrounding states. You will recall this blackout, since thirty million people were without electric power for three days.

I kept learning many fascinating facts about Ir, but there were certain things that continued to puzzle me. I hesitated to ask him personal questions, but I was rather confused about the things he did not seem to do. One day I was pondering these matters when Ir chuckled loudly.

"Do not be troubled, Ambrose,"

he said, reading my mind as he often did. "I do not require food and drink since I am conditioned to get along without them. Your oxygen furnishes all the sustenance I need. That's why you see me eat and drink so little. Everything that I ostensibly eat and drink is immediately converted into hydrogen and dissipated into the air. The only reason I shove any of that stuff in my mouth at all is not to be conspicuous around here. And what you're wondering —that's why I never find it necessary to do what you're wondering about."

Of course I accepted this explanation, but there was another matter I considered mentioning. I was about to suggest that maybe he would enjoy the love and companionship of some gorgeous doll, as we had ample funds to induce such sentiments in the most gorgeous of them. I did not consider any friends of Charlene in this regard, of course. Not only did they have too much mileage, but I have seen prettier heads on lettuce. I was thinking specifically of a couple of showgirls whom I knew when I resided at the Acme Hotel in the days before I discovered Ir.

"No, thanks, Ambrose," Ir said, and chuckled some more at a suspicion I suddenly acquired. "But do not be apprehensive. I assure you I am a normal Emdorian male. It is only that before we leave, we Emdorians are conditioned against the kind of activity you are reluctant to suggest. The authorities wish to take no chances that one of us will get into a sticky situation. So what you're about to propose is not only unappealing, but downright distasteful."

We continued happily with our endeavors. On the World Series I did quite well. You will recall that I spread it out to the full seven games, and when the pro football season commenced, I enjoyed further success. I decided that I would make one large triumph and then go under wraps for a while. I was always conscious of the fact that Ir's stay was only temporary. It was necessary to act in cautious haste.

I decided that the game on which we would climax our activities was the contest between the Giants and the Green Bay Packers, who would meet head-on in late November in Yankee Stadium. They had identical records, and it was an encounter that everybody who knows a football from an ostrich egg was eagerly awaiting. The betting on this game, of course, reached astronomical proportions.

I put my grand design into motion. I gathered all my assets. I emptied out my safe-deposit boxes. I obtained sixty gees on my house, which was worth eighty. I even got two thousand on Charlene's

mink coat, Autumn Haze, full length, for which I paid over five only a few months before. This I negotiated with Benny Kibulsko, the kindly pawnshop operator with whom I had done business through the years. I explained to Benny that I required the money to bet on the Giants, and as part of the transaction, he insisted on remaining nearby so he could keep his eye on the garment.

Putting everything together, I raised four hundred eighty thousand bucks, all of which went down on the Giants. This was an even-money game, although I did get eleven to ten on a small amount with a bookie in Albuquerque, New Mexico. I rented a plane and pilot and made a fast tour of our great nation. In one week I visited thirty-two cities, while Malcolm was making calls on wagering proprietors in the Southeast. By Thursday before the game we had all of the four hundred eighty grand down in many localities on the continent.

I began to get nervous at the magnitude of this sum, although there was no logic in my apprehension. Our track record proved that Ir could make any pass fall incomplete. We could slow down a ball carrier making a long run, assure that no field goals went between the posts. There was nothing to worry about. I concluded that I was foolish to feel concern.

On Sunday afternoon we were sitting in our upper-deck box in Yankee Stadium and down below the Giants and the Packers were going through their pre-game preparations. Our party consisted of Ir and me, naturally, along with Charlene and Malcolm and Benny Kibulsko, who steadfastly refused to let Charlene's mink coat out of his sight.

This proved somewhat unpleasant to Charlene, who decided to saunter around the stadium so as to display her coat, Autumn Haze, full length, to envious female spectators. As she moved about, Benny, taking no chances, was never far behind. This caused a bit of excitement when Charlene strolled into the ladies room and Benny, intent on his surveillance, followed. The screams of astonished patrons finally drove him out, but he remained a few feet outside the door until Charlene emerged.

She was highly indignant, of course. "Ambrose, make this creep stop following me," she demanded when she returned to the box. "I was never so embarrassed in my life."

Naturally I was unable to explain the circumstances, but I managed to pacify her, and soon the game commenced. Ir was in great form, and gradually all my uneasiness vanished. The Packers received the opening kickoff and marched down to the Giants' thirty-one. When Roth tried a

field goal, Ir neatly diverted it off to the side. In general, though, it was unnecessary to use Ir's talents, as these teams were so evenly matched I could let them continue on their own.

I permitted each team to score a touchdown, and in the third quarter the Giants' kicker booted a long field goal which Ir accurately steered. The Giants were leading, ten to seven, going down to the last five minutes of the game.

The Packers took the kickoff after the field goal and started moving. Ir, who by this time had acquired a commendable knowledge of the game, inquired whether he should slow them down.

"Only in emergencies," I told him. "Of course I cannot tolerate the completion of a long pass or anything of that nature. Let them get a little closer. After all, the fans are entitled to some excitement, as the cost of these tickets is rather steep."

After three first downs the Packers were on the Giants' twenty-six. The two-minute warning was given, and I said to Ir, "As of now, let us put a stop to this. Why tempt fate? When play resumes, make sure that the Packers make no progress."

Ir got his camera into position to take some pictures. There was a vast wave of noise, and the tension was electric, and the fans were exhorting the Giants to become immovable. Despite all this, over me settled a splendid calm as I contemplated the riches that I was on the verge of acquiring. So engrossed was I in this lovely vision that I did not notice at first the two grim-faced guys who came over to our box and tapped Ir on the shoulder.

Ir looked up and gasped in dismay. "Enec. Srolif," he muttered in disbelief.

Very firmly they took hold of Ir. "Wait . . . wait," he protested. "I can explain."

The guy I took to be Srolif was shaking his head sadly. "I was afraid of this," he said. "I warned the Prefect about what would happen." He looked at Ir. "You are rather a poor guest on this planet, Ir. You caused us a bit of difficulty finding you. When you did not arrive in Melbourne, we deduced that, typically, you found some way to flub up."

"Yes," the other guy, Enec, added. "It was a mistake to grant you a travel permit. That episode of the power failure in the American Southwest was really a bit too irresponsible, even for you. And your use of a gravitalterator, such as it is, to meddle around in Earth affairs. Tsk. Tsk."

With that, he snatched the camera from me. "I will remove the degravidentroizer transistor, if you don't mind." And he neatly jerked it out and handed me back the now useless gadget. They es-

corted Ir, one on each side, up the steps and into the aisle opening that leads to the ramp. All the time I heard Ir protesting, "I can explain. It could happen to anybody. I can explain."

I rushed out after them, but when I got behind the stands, I saw nothing but concrete walks and steel pillars. There was no trace of the three of them. They had vanished, and I knew I would never see my good friend, Ir, again.

As I moved back into the Stadium, I heard a monumental roar, and the Packer players were dancing up and down with glee in the end zone. I realized dimly that in my absence they had scored a touchdown. They now led, fourteen to ten, and there were only seconds left to play.

I experienced an overwhelming sensation of despair. The last thing I recall coherently was Benny Kibulsko whisking the Autumn Haze, full length, mink coat off a screaming Charlene. I began to beat my head against a seat. I could not help myself. In the background I heard some guy observe, "Most rabid Giant fan I ever saw." That was all I remember until I awoke the next day in the hospital.

Ambrose paused and dabbed his eyes with a handkerchief from the breast pocket of his jacket. I felt a great surge of pity for the man. I was convinced that he was unquestionably less rational than the medical authorities had diagnosed. Ambrose, I was sure, harmless as he was, belonged back in Briarwood.

"That was certainly a fascinating tale, Ambrose," I said. "I'm still vague, though, about how I come into it. What's this about an investment? A vast fortune? I must confess I missed that part."

He held up his hand. "Wait, wait," he said. "I did not come to that yet. The climax is still to come." He lit a cigarette.

"As I remained in Briarwood," Ambrose continued, "of course I cogitated at great length upon my circumstances. Then suddenly, out of the blue, it began to fit into place. I require from you about five thousand dollars to make you an equal partner in a foolproof venture.

"You question the need for this sum? It is to send my sister Alice and Fat Gordon on a trip, maybe to Hawaii, since it will be necessary to have complete freedom of movement to perform the task I have in mind.

"You will recall that I mentioned sending Alice a bequest of ten thousand dollars during the period of my wealth. Well, with this money she bought a color television set, built a new barn and purchased a whole new herd of Holstein cows for Fat Gordon. They now have so many cows

they even require two bulls to perform the duties assigned to them. And why I want Fat Gordon far away is that I wish to rip up the floor of his new barn.

"Unfortunately, this structure is built precisely over the old well, a fact I learned by careful questioning of Alice and from a snapshot she sent me. This poses a problem, but it is by no means insurmountable.

"No doubt you remember that when Ir dropped his space vehicle down the old well, there was still one degravidentroizer transistor in it that remained functional. It is still there to this day. We have merely to retrieve it, place it in the camera and wire it up, and we are back in business. We then have a gravitalterator. All I require is a small stake to finance the operation.

"So, my plan is this: We send Alice and Fat Gordon away. While they are gone I will move in a guy with a jack hammer to rip up the concrete floor that now sits over the old well. We salvage the degravidentroizer transistor from Ir's vehicle and hook it up to the rest of the mechanism in the camera, which at this moment is securely resting in an old shoebox under Malcolm's bed. This will be no great task, since I could do it myself.

"For all costs of this venture, including expenses and investment capital to get started, five thousand will be ample. Think of it. An investment of five gees and the returns are limitless. As I once told Ir, we possess a money builder."

Ambrose's eyes were shining with excitement. To tell the truth, I, too, experienced a sizeable surge of a strange emotion which, after a struggle of some magnitude, was replaced by common sense.

"Ambrose," I said. "Again I tell you. That was a fascinating story. But first, I do not have five thousand dollars, and second, I would have to be more unsound than you were accused of being to believe it. As much as I'd like to find the formula for instant wealth, the answer is positively no."

"Fair enough," Ambrose said, calmly. "Do not make a hasty decision. You are correct to think it over."

"In the eyes of the dreamer, failure is but the shrill cry of the eagle," Malcolm added.

"Ambrose, you do not understand," I said. "I do not buy your proposition."

"You will," Ambrose said. "Just think it over for a while. Think, Charlie, about the approaching basketball season. Nobody can make a shot in any game we attend without our consent. Why in Madison Square Garden alone we'll make a fortune."

I began to get irritated. "Am-

brose, you have some nerve coming to me with a story like this. I can appreciate that maybe you're a little short, and I can let you have a few bucks for walking-around money," I said. "But five thousand dollars? Forget it."

"Charity is not what I require," said Ambrose with great dignity. "I am offering you a bona fide business proposition that is like money in the bank. Think it over some more. I am confident that reason will prevail." He reached for his hat. "I'll call you in a day or so." With that, he and Malcolm got up and walked briskly out the door of Manny's Bar and Grill.

I sat there for perhaps an hour. I had more drinks. They had no effect on me. I thought about Ambrose's fanciful story. The more I thought, the more confused I became. My brain was spinning like a gyroscope.

It was true that the most unlikely event in all the history of baseball was the perfect game of Ancient Alfie Livingston. It was also fact that about three years ago, for reasons never convincingly explained, five Southwestern states were without electric power for seventy-two hours. And, of course, I recalled the days of Ambrose Ledgerwood's opulence.

All of this added up. Or maybe it was coincidence. Maybe Ambrose merely used these facts to substantiate a bizarre story. Maybe he was still nuttier than a Waldorf salad.

Or maybe he wasn't.

I walked over to the telephone booth that stood at the rear of Manny's place and dialed the number of Cy Browntree, a guy I know who manages the bank in the suburb where I live.

My tongue was thick, a circumstance in no way connected with the liquid I had consumed. "Cy," I said. "Just suppose . . . how's chances for a loan? A five thousand dollar loan?"

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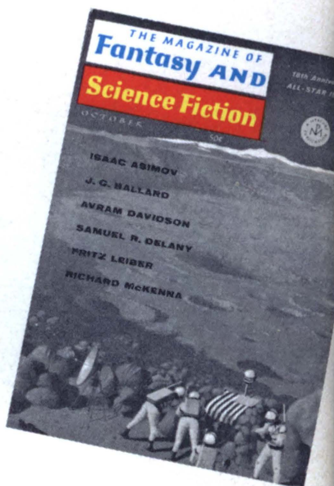

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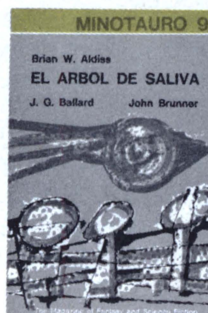

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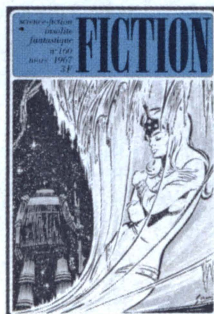

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