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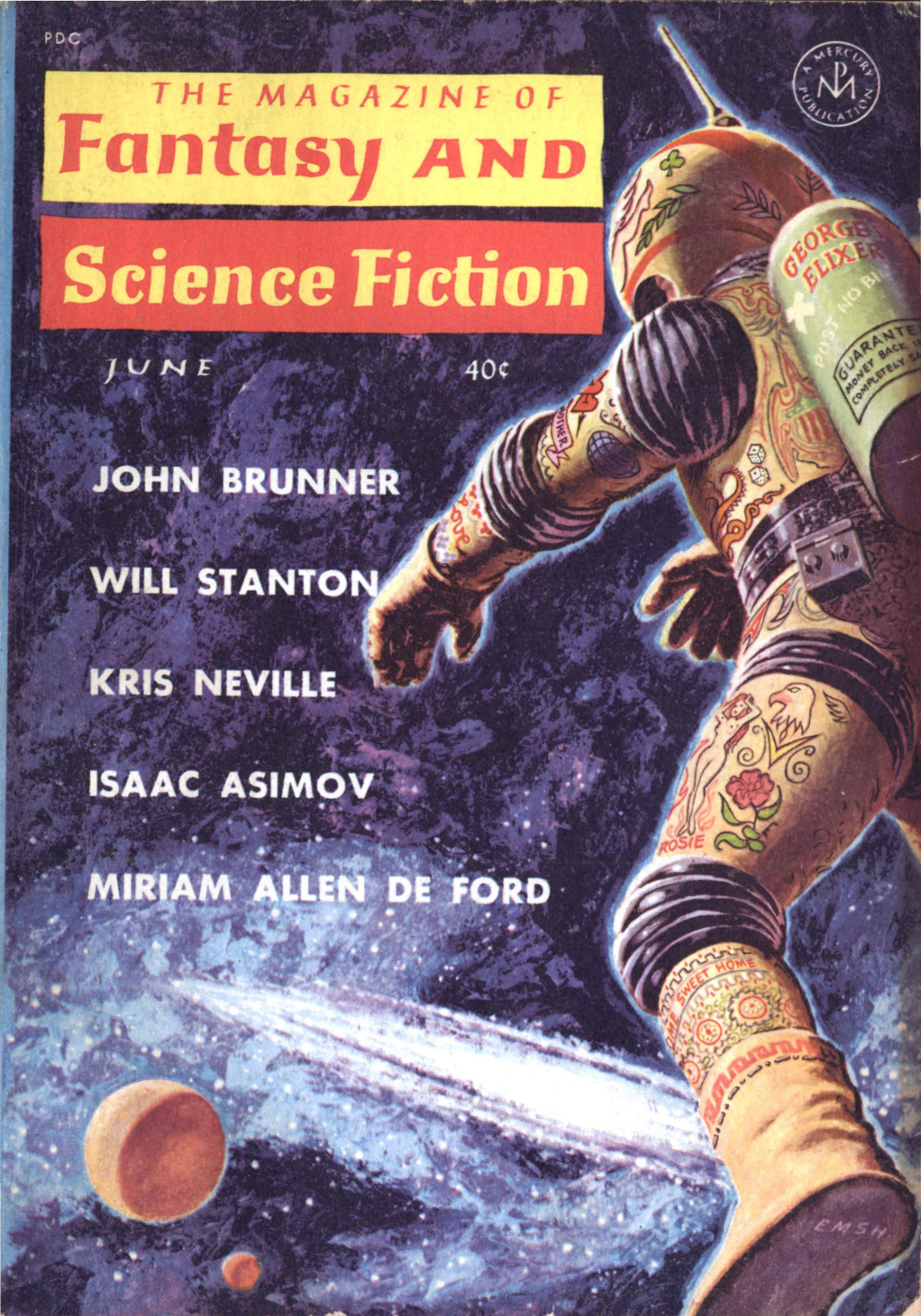

Fantasy and Science Fiction

JUNE

Including Venture Science Fiction

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In this issue . . .

. . . are stories by newcomers (whom we hope will become regulars) Djinn Faine, Charles Foster, and Ethan Ayer. They will move, amuse, and intrigue you—but in order to find out which will do what, and how, you will have to read them. Dr. Nesvadba makes his third appearance here, John Brunner conducts a realistic tour of the Night Side, Will Stanton watches birds and takes omens, Kris Neville speculates on a beggar's roughshod ride, and Frederick Bland demonstrates that science fiction needs no machines and can bring a bold yarn from the four elements—or any one of them.

Books Editor Alfred Bester refers, in his reviews for this month, to Fritz Leiber and "the marvelous nuances, references, allusions . . . the network of stream-of-consciousness that is the quintessence of his unique style." Mr. B., even as you and I, will be pleased to know that all this richness is to be found—and in the *third* person, too!—in Fritz Leiber's THE SECRET SONGS, which will be along soon.

Coming soon . . .

. . . is a story of men with (and/or without) women in outer space by Randall Garrett, a Harlan Ellison tale of hot blues and cold chills, and the first Robert Sheckley novel for F&SF.

Readers who live on the West Coast, near the West Coast, or who are planning soon to visit the West Coast are counselled to make a note of the WESTERCON XV (The Fifteenth Annual West Coast Science Fantasy Conference), to be holden at the Hotel Alexandria in Los Angeles on June 30 and July 1: Parties, panels, debates, fantasy art shows, classical SF movies, a comic operetta, Author Jack Vance (*The Big Planet, Languages of Pao, The Dying Earth*) as Guest of Honor—and Anthony Boucher as Master of Ceremonies. $1 membership fee should be sent to William B. Ellern, Treasurer, PO Box 54207, Terminal Annex, Los Angeles 54, California.

And speaking of conventions, those delightful lupercalia, the WORLD SCIENCE FICTION CONVENTION (ChiCon III) takes place in The Second City for the third time, and should not be missed. Theodore Sturgeon is Guest of Honor here, Wilson Tucker MCs, the Hell-Fire Club holds its masquerade ball, and the $3 registration goes to Treasurer George W. Price, 20th World Science Fiction Convention, PO Box 4864, Chicago 80, Illinois. Send yours *now*, and get regular Progress Reports.

Herodotus, in a passage as brief as we found it unforgettable, wrote of the Atlanteans that they were said never to have dreams. Joseph's led him into slavery and thence to the right hand of Pharaoh. "Last night I dreamed a dreary dream/ Beyond the Isle of Skye/ I saw a dead man win a fight/ And I fear that man was I . . ." And then, after thousands of years during which sleep was nature's sweet restorer, disturbed only by nightmares and succubi, came Freud, at the glance of whose glittering eye-glasses whole regiments of inert cutlery sprang to life. All very well, but what of a man whose petty days are punctuated by petty dreams? What happens when he is deprived of them? Must *men dream? John Brunner investigates one possible area of the strange realm of Chronos and old Night.*

SUCH STUFF

by John Brunner

WITH THE LEADS OF THE ELECtroencephalograph stringing out from his skull like webs spun by a drunken spider, the soft adhesive pads laid on his eyes like pennies, Starling resembled a corpse which time had festooned with its musty garlands. But a vampire-corpse, plump and rosy in its state of not-quite-death. The room was as still as any mausoleum, but it smelt of floor-polish, not dust; his coffin was a hospital bed and his shroud a fluffless cotton blanket.

Except for the little yellow pilot lights in the electronic equipment beside the bed, which could just be seen through the ventilation holes in the casing, the room was in darkness. But when Wills opened the door from the corridor the shaft of light which came over his shoulder enabled him to see Starling clearly.

He would rather not have seen him at all—laid out thus, lacking candles only because he was not dead. That could be remedied,

given the proper tools: a sharpened stake, a silver bullet, crossroads at which to conduct the burial—

Wills checked himself, his face prickly with new sweat. It had hit him again! The insane idea kept recurring, like reflex, like pupils expanding under belladonna, for all he could do to drive it down. Starling lay like a corpse because he had grown used to not pulling loose the leads taped to his head—*that's all! That's all! That's all!*

He used the words like a club to beat his mind into submission. Starling had slept like this for months. He lay on one side, in a typical sleeper' attitude, but because of the leads he barely moved enough in the course of a night to disturb the bedclothes. He breathed naturally. Everything was normal.

Except that he had done it for months, which was incredible and impossible and not in the least natural.

Shaking from head to foot, Wills began to step back through the door. As he did so, it happened again—now it was happening dozens of times a night. A dream began.

The electroencephalograph recorded a change in brain activity. The pads on Starling's eyes sensed eye movements and signalled them. A relay closed. A faint but shrill buzzer sounded.

Starling grunted, stirred, moved economically as though to dislodge a fly that had settled on him. The buzzer stopped. Starling had been woken; the thread of his dream was snapped.

And he was asleep again.

Wills visualised him waking fully and realising he was not alone in the room. Cat-silent, he crept back into the corridor and closed the door, his heart thundering as though he had had a narrow escape from disaster.

Why? In daytime he could talk normally with Starling, run tests on him as impersonally as on anyone else. Yet at night—

He slapped down visions of Starling by day, Starling corpse-like in his bed at night, and moved down the long corridor with his teeth set to save them from chattering. He paused at other doors, pressing his ear to them or glancing inside for a moment. Some of those doors led to private infernos which ought to have jarred on his own normality with shocking violence, as they always used to. But none affected him like Starling's passiveness—not even the moaning prayers of the woman in Room 11, who was being hounded to death by imaginary demons.

Conclusion: his normality had gone.

That thought also recurred in spite of attempts to blank it out. In the long corridor which framed his aching mind like a microwave guide tube, Wills faced it. And

found no grounds for rejecting it. They were in the wards; he in the corridor. So what? Starling was in a ward, and he was not a patient. He was sane, free to leave whenever he wished. In remaining here he was simply being co-operative.

And telling him to go away would solve nothing at all.

His rounds were over. He went back towards the office like a man resolutely marching towards inevitable doom. Lambert—the duty nurse—was snoring on the couch in the corner; it was against regulations for the duty nurse to sleep, but Wills had had more than he could bear of the man's conversation about drink and women and what he was missing tonight on television and had told him to lie down.

He prodded Lambert to make him close his mouth and sat down at the desk, drawing the night report towards him. On the printed lines of the form his hand crawled with its shadow limping behind, leaving a trail of words contorted like the path of a crazy snail.

5 a.m. All quiet except Room 11. Patient there normal.

Then he saw what he had written. Angrily he slashed a line through the last word, another and another till it was illegible, and substituted "much as usual". Normal!

I am in the asylum of myself.

He tilted the lamp on the desk so it shone on his face and turned to look at himself in the wall-mirror provided for the use of female duty nurses. He was a little haggard after the night without sleep, but nothing else was visibly wrong with him. Much as usual, like the patient in Room 11.

And yet Starling was sleeping the night away without dreams, undead.

Wills started, fancying that something black and thread-like had brushed his shoulder. A picture came to him of Starling reaching out from his bed with the tentacle leads of the e.e.g., as if he were emitting them from spinnerets, and weaving the hospital together into a net of his own, trapping Wills in the middle like a fly.

He pictured himself being drained of his juices, like a fly.

Suddenly Lambert was sitting up on the couch, his eyes flicking open like the shutters of a house being aired for a new day. He said, "What's the matter, doc? You're as white as a flaming sheet!"

There was no black thread-like thing on his shoulder. Wills said with an effort, "Nothing. Just tired, I think."

He thought of sleeping, and wondered what he would dream.

The day was bright and warm. He was never good at sleeping in the daytime; when he woke for the

fourth or fifth time, unrested, he gave up. It was Daventry's day for coming here, he remembered. Maybe he should go and talk to him.

He dressed and went out of doors, his eyes dark-ringed. In the garden a number of the less ill patients were working listlessly. Daventry and the matron moved among them, complimenting them on their flowers, their thorough weeding, the lack of aphis and blackfly. Daventry had no interest in gardening except insofar as it was useful for therapy. The patients, no matter how twisted their minds were, recognised this, but Daventry apparently didn't know they knew. Wills might have laughed, but he felt laughter was receding from him. Unused faculties, like unused limbs, atrophy.

Daventry saw him approach. The bird-eyes behind his glasses flicked poultry-wise over him, and a word passed from the thin-lipped mouth to the matron, who nodded and moved away. The sharp face was lit by a smile; brisk legs began to carry him over the tiny lawn, which was not mown by the patients because mowers were too dangerous.

"Ah, Harry!" in Daventry's optimistic voice. "I want a word with you. Shall we go to the office?" He took Wills's arm as he turned, companionably; Wills, who found the habit intolerable, broke the grip before it closed.

He said, "As it happens, I want a word with you too."

The edginess of his tone sawed into Daventry's composure. The bird-eyes scanned his face, the head tipped a little on one side. The list of Daventry's mannerisms was a long one, but he knew the reasons for all of them and often explained them.

"Hah!" he said. "I can guess what this will be about!"

They passed into the building and walked side by side with their footsteps beating irregularly like two palpitating hearts. In the passageway Daventry spoke again.

"I presume there's been no change in Starling, or you'd have left a note for me—you were on night duty last night, weren't you? I didn't see him today, unfortunately; I was at a conference and didn't get here till lunchtime."

Wills looked straight ahead, to the looming door of Daventry's office. He said, "No—no change. But that's what I wanted to talk about. I don't think we should go on."

"Ah!" said Daventry. It was automatic. It meant something altogether different, like "I'm astonished"—but professionally Daventry disavowed astonishment. The office accepted them, and they sat down to the idiot noise of a bluebottle hammering its head on the window.

"Why not?" Daventry said abruptly.

Wills had not yet composed his answer. He could hardly speak of the undead Starling with pads on his eyes like pennies, of the black tentacles reaching out through the hospital night, of the formulated but suppressed notion that he must be treated with sharp stakes and silver bullets, and soon. He was forced to throw up improvisation like an emergency earthwork, knowing it could be breached at a dozen points.

"Well—all our other cases suggest that serious mental disturbance results from interference with the dreaming process. Even the most resistant of our other volunteers broke down after less than two weeks. We've prevented Starling from dreaming every night for five months now, and even if there are no signs of harm yet it's probable that we *are* harming him."

Daventry had lit a cigarette while Wills talked. Now he waved it in front of him, as though to ward off Wills's arguments with an adequate barrier—a wisp of smoke.

"Good gracious Harry!" he said affably. "What damage are we doing? Did you detect any signs of it last time you ran Starling through the tests?"

"No—that was last week and he's due for another run tomorrow —no, what I'm saying is that everything points to dreaming being essential. We may not have a test in the battery which shows the effect of depriving Starling of his dreams, but the effect must be there."

Daventry gave a neutral nod. He said, "Have you asked Starling's own opinion on this?"

Again, concede defeat from honesty: "Yes. He said he's perfectly happy to go on. He said he feels fine."

"Where is he at the moment?"

"Today's Tuesday. He goes to see his sister in the town on Tuesday afternoons. I could check if you like, but—"

Daventry shrugged. "Don't bother. I have good news for you, you see. In my view, six months is quite long enough to establish Starling's tolerance of dream-deprivation. What's next of interest is the nature of his dreams when he's allowed to resume. So in three weeks from now I propose to end the experiment and find out."

"He'll probably wake himself up reflexively," Wills said.

Daventry was prepared to take the words with utmost seriousness. He said, "What makes you think that?"

Wills had meant it as a bitter joke; when he re-considered, he found reason after all. He said, "The way he's stood the treatment when no one else could. Like everyone else we tested, his dreaming frequency went up in the first few days; then it peaked at about thirty-four times a night, and

dropped back to its current level of about twenty-six, which has remained constant for about four months now. Why? His mind seems to be malleable, and I can't believe that. People need dreams; a man who can manage without them is as unlikely as one who can do without food or water."

"So we thought," Daventry said briskly. Wills could see the conference papers being compiled in his mind, the reports for the *Journal of Psychology* and the four pages in *Scientific American*, with photographs. And so on. "So we thought. Until we happened across Starling, and he just proved we were wrong."

"I—" began Wills. Daventry took no notice and went on.

"Dement's work at Mount Sinai wasn't utterly definitive, you know. Clinging to first findings is a false attitude. We're now compelled to drop the idea that dreaming is indispensable, because Starling has gone without dreams for months and so far as we can tell—oh, I grant that: so far and no further—he hasn't suffered under the experience."

He knocked ash into a bowl on his desk. "Well, that was my news for you, Harry: that we finish the Starling series at the six-month mark. Then we'll see if he goes back to normal dreaming. There was nothing unusual about his dreaming before he volunteered; it will be most interesting . . ."

It was cold comfort, but it did give him a sort of deadline to work to. It also rid him of part of the horror he had suffered from having to face the presence in his mind of the vampire-corpse like a threat looming down the whole length of his future life-path. It actually heartened him till the time came to re-test Starling.

He sat waiting in his office for half an hour beforehand, because everything was otherwise quiet and because before he came up for psychological examintion Starling always underwent a physical examination by another member of the staff. Not that the physicals ever turned anything up. But the psychologicals hadn't either. It was all in Wills's mind. Or in Starling's. But if it was in Starling's he himself didn't know.

He knew the Starling file almost by heart now—thick, much thumbed, annotated by himself and by Daventry. Nonetheless he turned back to the beginning of it, to the time five months and a week ago when Starling was just one volunteer among six men and six women engaged in a follow-up to check on Dement's findings of 1960 with superior equipment.

There were transcripts of dreams with Freudian commentary, in their limited way extraordinarily revealing, but not giving a hint of the most astonishing secret—that Starling could get by without them.

I am in a railway station. People are going to work and coming home at the same time. A tall man approaches and asks for my ticket. I try to explain that I haven't bought one yet. He grows angry and calls a policeman, but the policeman is my grandfather. I cannot understand what he says.

I am talking to one of my schoolteachers, Mr Bullen. I am very rich and I have come to visit my old school. I am very happy. I invite Mr Bullen to ride in my car which is big and new. When he get in the door handle comes off in his hand. The door won't lock. I cannot start the engine. The car is old and covered with rust. Mr Bullen is very angry but I do not care very much.

I am in a restaurant. The menu is in French and I order something I don't know. When it comes I can't eat it. I call the manager to make a complaint and he arrives in a sailor's uniform. The restaurant is on a boat and rocks so that I feel ill. The manager says he will put me in irons. People in the restaurant laugh at me. I break the plates on which the food is served, but they make no noise and no one notices. So I eat the food after all.

That last one was exactly what you would expect from Starling, Wills thought. He ate the food after all, and liked it.

These were records extracted from the control period—the week during which his dreams and those of the other volunteers were being noted for comparison with later ones, after the experiment had terminated. In all the other eleven cases that was from three days to thirteen days later. But in Starling's—!

The dreams fitted Starling admirably. Miserable, small-minded, he had gone through life being frustrated, and hence the dreams went wrong for him, sometimes through the intervention of figures of authority from childhood, such as his hated grandfather and the schoolteacher. It seemed that he never fought back; he—ate the food after all.

No wonder he was content to go on co-operating in Daventry's experiment, Wills thought bleakly. With free board and lodging, no outside problems involved, he was probably in paradise.

Or a kind of gratifying hell.

He turned up the dreams of the other volunteers—the ones who had been driven to quit after a few nights. The records of their control week showed without exception indications of sexual tension, dramatised resolutions of problems, positive attacks on personal difficulties. Only Starling provided continual evidence of total surrender.

Not that he was outwardly inadequate. Considering the frustration he had endured first from his parents, then from his tyrannical grandfather and his teachers, he

had adjusted well. He was mild-mannered and rather shy, and he lived with his sister and her husband, but he held down a fairly good job, and he had a small, constant circle of acquaintances mainly met through his sister's husband, on whom he made no great impression but who all "quite liked" him.

Quite was a word central to Starling's life. Hardly any absolutes. Yet—his dreams to the contrary—he could never have surrendered altogether. He'd made the best of things.

The volunteers were a mixed bag: seven students, a teacher on sabbatical leave, an out-of-work actor, a struggling writer, a beatnik who didn't care, and Starling. They were subjected to the process developed by Dement at New York's Mount Sinai Hospital, as improved and automatised by Daventry—the process still being applied to Starling even now, which woke him with a buzzer whenever the signs indicating dreaming occurred. In the eleven other cases, the effect found was the same as what Dement established: interrupting the subject's dreaming made them nervous, irritable, victims of uncontrolled nervous tension. The toughest quit after thirteen days.

Except for Starling, that was to say.

It wasn't having their sleep disturbed that upset them; that could be proved by waking them between, instead of during, dreams. It was not being *allowed* to dream that caused trouble.

In general, people seemed to spend about an hour a night dreaming, in four or five "instalments". That indicated that dreaming served a purpose: what? Dissipation of antisocial tensions? A grooming of the ego as repressed desires were satisfied? That was too glib an answer. But without Starling to cock a snook in their faces, the experimenters would have accepted a similar generalisation and left the matter there till the distant day when the science of mind was better equipped to weigh and measure the impalpable stuff of dreams.

Only Starling *had* cropped up. At first he reacted predictably. The frequency of his dreaming shot up from five times a night to twenty, thirty and beyond, as the buzzer aborted each embryo dream, whirling into nothing his abominable grandfather, his tyrannical teachers—

Was there a clue there? Wills had wondered that before. Was it possible that, whereas other people *needed* to dream, Starling hated it? Were his dreams so miserable that to go without them was a liberation to him?

The idea was attractive, because straightforward, but it didn't hold water. In the light of previous experiments, it was about

equivalent to saying that a man could be liberated from the need to excrete by denying him food and water.

But there was no detectable effect on Starling! He had not lost weight, nor grown more irritable; he talked lucidly, he responded within predictable limits to IQ tests and Rorschach tests and every other test Wills could find.

It was purely unnatural.

Wills checked himself. Facing his own reaction squarely, he saw it for what it must be—an instinctive but irrational fear like the fear of the stranger who comes over the hill with a different accent and different table-manners. Starling was human; ergo, his reactions were natural; ergo, either the other experiments had agreed by coincidence and dreaming wasn't indispensable, or Starling's reactions were the same as everyone's and were just being held down until they blew like a boiler straining past its tested pressure.

There were only three more weeks to go, of course.

The habitual shy knock came to the door. Wills grunted for Starling to come in, and wondered as he looked at him how the sight of him passive in bed could inspire him to thoughts of garlic, sharpened stakes and burial at crossroads.

The fault must be in his own mind, not in Starling's.

The tests were exactly as usual. That wrecked Wills's tentative idea about Starling welcoming the absence of his dreams. If indeed he was liberated from a burden, that should show up in a trend towards a stronger, more assured personality. The microscopic trend he actually detected could be assigned to the fact that for several months Starling had been in this totally undemanding and restful environment.

No help there.

He shoved aside the pile of test papers. "Mr Starling," he said, "what made you volunteer for these experiments in the first place? I must have asked you before, but I've forgotten."

It was all on the file, but he wanted to check.

"Why, I don't really know, doctor," Starling's mild voice said. Starling's cow-like eyes rested on his face. "I think my sister knew someone who had volunteered, and my brother-in-law is a blood donor and kept saying that everyone should do something to benefit society, and while I didn't like the idea of being bled because I've never liked injections and things like that this idea seemed all right, so I said I'd do it. Then of course when Dr Daventry said I was unusual and would I go on with it I said I hadn't suffered by it and I didn't see why I shouldn't if it was in the cause of science—"

The voice droned on, adding

nothing new. Starling was very little interested in new things. He had never asked Wills the purpose of any test he submitted to; probably he had never asked his own doctor what was on a prescription form filled out for him, being content to regard the medical abbreviations as a kind of talisman. Perhaps he was so used to being snubbed or choked off if he showed too much interest that he felt he was incapable of understanding the pattern of which Wills and the hospital formed part.

He *was* malleable. It was the galling voice of his brother-in-law, sounding off about his uselessness, which pushed him into this. Watching him, Wills realised that the decision to offer himself for the experiment was probably the biggest he had ever taken, comparable in the life of anyone else with a decision to marry, or to go into a monastery. And yet that was wrong, too. Starling didn't take decisions on such a level. Things like that would merely happen to him.

Impulsively Wills said, "And how about when the experiment is over, Mr Starling? I suppose it can't go on for ever."

Placid, the voice shaped inevitable words. "Well, you know, doctor, I hadn't given that very much thought."

No, it wasn't a liberation to him to be freed of his dreaming. It was nothing to him. Nothing was anything to him. Starling was undead. Starling was neuter in a human scale of values. Starling was the malleable thing that filled the hole available for it, the thing without will of its own which made the best of what there was and did nothing more.

Wills wished he could punish the mind that gave him such thoughts, and asked their source to go from him. But though his physical presence went, his nonexistent existence stayed, and burned and loomed and was impassive and cocked snooks in every hole and corner of Wills's chaotic brain.

Those last three weeks were the worst of all. The silver bullet and the sharpened stake, the crossroads for the burial—Wills chained the images down in his mind, but he ached from the strain of hanging on to the chains. *Horror, horror, horror,* sang an eldritch voice somewhere deep and dark within him. *Not natural,* said another in a professionally judicious tone. He fought the voices and thought of other things.

Daventry said—and was correct according to the principles of the experiment, of course—that so as to have a true control for comparison they must simply disconnect the buzzer attached to the e.e.g. when the time came, and not tell Starling what they had done, and see what happened. He would be free to finish his dreams again.

Perhaps they would be more vivid, and he would remember more clearly after such a long interruption. He would—

But Willis listened with only half an ear. They hadn't predicted Starling's reaction when they deprived him of dreams; why should they be able to predict what would happen when he received them back? A chill premonition iced solid in his mind, but he did not mention it to Daventry. What it amounted to was this: whatever Starling's response was, it would be the wrong one.

He told Daventry of his partial breaking of the news that the experiment was to end, and his chief frowned.

"That's a pity, Harry," he said. "Even Starling might put two and two together when he realises six months have gone by. Never mind. We'll let it run for another few days, shall we? Let him think that he was wrong about the deadline."

He looked at the calendar. "Give him three extra days," he said. "Cut it on the fourth. How's that?"

By coincidence—or not?—Wills's turn for night duty came up again on that day; it came up once in eight days, and the last few times had been absolutely unbearable. He wondered if Daventry had selected the date deliberately. Maybe. What difference did it make?

He said, "Will you be there to see what happens?"

Daventry's face set in a reflex mask of regret. "Unfortunately no—I'm attending a congress in Italy that week. But I have absolute confidence in you, Harry, you know that. By the way, I'm doing up a paper on Starling for *Journ. Psych.*"—mannerisms, as always: he made it into the single word "jurnsike"—"and I think you should appear as co-author."

Cerberus duly sopped, Daventry went on his way.

That night the duty nurse was Green, a small clever man who knew judo. In a way that was a relief; Wills usually didn't mind Green's company, and had even learned some judo holds from him, useful for restraining but not harming violent patients. Tonight, though . . .

They spoke desultorily together for the first half-hour of the shift, but Wills sometimes lost track of the conversation because his mind's eye was distracted by a picture of what was going on in that room along the corridor where Starling held embalmed court among shadows and pilot lights. No one breached his privacy now as he went to bed; he did everything for himself, attached the leads, planted the penny-pads on his eyes, switched on the equipment. There was some risk of him discovering that the buzzer was

disconnected, but it had always been set to sound only after thirty minutes or more of typical simple sleep-readings.

Starling, though he never did anything to tire himself out, always went to sleep quickly. Another proof of his malleable mind, Wills thought sourly. To get into bed suggested going to sleep, and he slept.

Usually it was three-quarters of an hour before the first attempted dream would burgeon in his round skull. For six months and a couple of days the buzzer had smashed the first and all that followed; the sleeper had adjusted his position without much disturbing the bedding, and—

But not tonight.

After forty minutes Wills got up, dry-lipped. "I'll be in Starling's room if you want me," he said. "We've turned off his buzzer, and he's due to start dreaming again—normally." The word sounded unconvincing.

Green nodded, picking up a magazine from the table. "On to something pretty unusual there, aren't we, doc?" he said.

"God only knows," Wills said, and went out.

His heart was pumping so loudly he felt it might waken the sleepers around him; his footsteps sounded like colossal hammer-blows and his blood roared in his ears. He had to fight a dizzy, tumbling sensation which made the still lines of the corridor—floor-with-wall a pair of lines, wall-with-ceiling another pair—twist like a four-strand plait, like the bit of a hand-drill or a stick of candy turned mysteriously and topologically outside-in. Swaying as though drunk he came to Starling's door and watched his hand go to the handle.

I refuse the responsibility. I'll refuse to co-author the paper on him. It's Daventry's fault.

Nonetheless he acquiesced in opening the door, as he had acquiesced all along in the experiment.

He was intellectually aware that he entered soundlessly, but he imagined himself going like an elephant on broken glass. Everything was as usual, except of course the buzzer.

He drew a rubber-shod chair to a position from which he could watch the paper tapes being paid out by the e.e.g., and sat down. As yet there were only typical early-sleep rhythms—Starling had not yet started his first dream of the night. If he waited till that dream arrived, and saw that all was going well, perhaps it would lay the phantoms in his mind.

He put his hand in the pocket of his jacket and closed it around a clove of garlic.

Startled, he drew the garlic out and stared at it. He had no memory of putting it there. But last time he was on night duty and

haunted by the undead appearance of Starling as he slept, he had spent most of the silent hours drawing batwing figures, stabbing their hearts with the point of his pencil, sketching crossroads around them, throwing the paper away with the hole pierced in the centre of the sheet.

Oh, God! It was going to be such a relief to be free of this obsession!

But at least providing himself with a clove of garlic was a harmless symptom. He dropped it back in his pocket. He noticed two things at the same time directly afterwards. The first was the alteration in the line on the e.e.g. tapes which indicated the beginning of a dream. The second was that he had a very sharp pencil in his pocket, as well as the clove of garlic—

No, not a pencil. He took it out and saw that it was a piece of rough wood, about eight inches long, pointed at one end. That was all he needed. That, and something to drive it home with. He fumbled in all his pockets. He was carrying a rubber hammer for testing reflexes. Of course, that wouldn't do, but anyway . . .

Chance had opened a gap in Starling's pyjama jacket. He poised the stake carefully over his heart and swung the hammer.

As though the flesh were soft as cheese, the stake sank home. Blood welled up around it like a spring in mud, trickled over Starling's chest, began to stain the bed. Starling himself did not awaken, but simply went more limp—naturally, for he was undead and not asleep. Sweating, Wills let the rubber hammer fall and wondered at what he had done. Relief filled him as the unceasing stream of blood filled the bed.

The door behind him was ajar. Through it he heard the cat-light footfalls of Green, and his voice saying urgently, "It's Room 11, doc! I think she's—"

And then Green saw what had been done to Starling.

His eyes wide with amazement, he turned to stare at Wills. His mouth worked, but for a while his expression conveyed more than the unshaped words he uttered.

"Doc!" Green said finally, and that was all.

Wills ignored him. He looked down at the undead, seeing the blood as though it were luminous paint in the dim-lit room—on his hands, his coat, the floor, the bed, flooding out now in a river, pouring from the pens that waggled the traces of a dream on the paper tapes, making his feet squelch stickily in his wet shoes.

"You've wrecked the experiment," Daventry said coldly as he came in. "After I'd been generous enough to offer you co-authorship of my paper in *Journ. Psych.*, too! How could you?"

Hot shame flooded into Wills's

mind. He would never be able to face Daventry again.

"We must call a policeman," Daventry said with authority. "Fortunately he always said he thought he ought to be a blood donor."

He took up from the floor a gigantic syringe, like a hypodermic for a titan, and after dipping the needle into the river of blood hauled on the plunger. The red level rose inside the glass.

And *click*.

Through a crack in Wills's benighted skull a fact dropped. Daventry was in Italy. Therefore he couldn't be here. Therefore he wasn't. Therefore—

Wills felt his eyes creak open like old heavy doors on hinges stiff with rust, and found that he was looking down at Starling in the bed. The pens tracing the activity of his brain had reverted to a typical sleep-rhythm. There was no stake. There was no blood.

Weak with relief, Wills shuddered at remembered horror. He leaned back in his chair, struggling to understand.

He had told himself that whatever Starling's reaction to being given back his dreams might be, it would be the wrong one. Well, here it was. He couldn't have predicted it. But he could explain it now—more or less. Though the mechanics of it would have to wait a while.

If he was right about Starling, a lifetime of frustration and making the best of things had sapped his power of action to the point at which he never even considered tackling an obstacle. He would just meekly try and find a way around it. If there wasn't one—well, there wasn't, and he left it at that.

Having his dreams stopped was an obstacle. The eleven other volunteers, more aggressive, had developed symptoms which expressed their resentment in manifold ways: irritability, rage, insulting behaviour. But not Starling. To Starling it was unthinkable to express resentment.

Patiently, accustomed to disappointment because that was the constant feature of his life, he had sought a way around the obstacle. And he had found it. He had learned how to dream with someone else's mind instead of his own.

Of course, until tonight the buzzer had broken off every dream he attempted, and he had endured that like everything else. But tonight there was no buzzer, and he had dreamed *in* and *with* Wills. The driving of the stake, the blood, the intrusion of Green, the appearance of Daventry, were part of a dream to which Wills contributed some images and Starling contributed the rest, such as the policeman who didn't have time to arrive, and the giant hypodermic. He feared injections.

Wills made up his mind. Da-

ventry wouldn't believe him—not unless he experienced the phenomenon himself—but that was a problem for tomorrow. Right now he had had enough, and more than enough. He was going to reconnect the buzzer and get to hell out of here.

He tried to lift his arm towards the boxes of equipment on the bedside table, and was puzzled to find it heavy and sluggish. Invisible weights seemed to hang on his wrist. Even when, sweating, he managed to force his hand towards the buzzer his fingers felt like sausages and would not grip the delicate wire he had to attach to the terminal.

He had fought for what seemed like an eternity, and was crying with frustration, when he finally understood.

The typical pattern of all Starling's dreams centred on failure to achieve what he attempted; he expected his greatest efforts to be disappointed. Hence Wills, his mind somehow linked to Starling's and his consciousness seeming to Starling to be a dream, would never be able to re-connect that buzzer.

Wills let his hands fall limp on his dangling arms. He looked at Starling, naked fear rising in his throat. How much dreaming could a man do in a single night when he had been deprived for six mortal months?

In his pocket was a sharp wooden stake and a hammer. He was going to put an end to Starling's dreaming once for all.

He was still in the chair, weeping without tears, tied by invisible chains, when Starling awoke puzzled in the morning and found him.

If our predecessor's predecessor, the learned and much-loved Anthony Boucher, had a weakness it was for good writers who also happened to be good-looking women—and, as Sam Weller quoted someone as saying, "It's an amiable weakness." It was Tony Boucher's ill-fortune, then, and our good fortune, that to us, rather than to him, falls the pleasant task of introducing the first story in F&SF by the lovely and loveable, blonde and Junoesque Djinn Faine; in private life, Mrs. Robert Russell. The Russells inhabit a private Olympus of their own near Los Angeles, with a sixty-mile view which includes a distant prospect of the Southern Pacific railroad track, along which (she writes) "the train comes coiling down the valley like a dragon . . ." Far from such scenes is that of her present story about a love which even the cold fear between the stars —and later—could not destroy. What happens when one of the deepest principles of our moral code conflicts with the survival of human life itself? When two people are foolish for love—and give and give?

DAUGHTER OF EVE

by Djinn Faine

SHE WAS VERY UNSUN. I NEVER knew my mother but Daddy said she looked like she ate violets and cream for breakfast. I always thought that was pretty silly because I never heard of such fare on starships and Daddy doesn't raise such crops here, but anyway, she had pale golden hair and was very unsun.

Daddy is a big man. He is two or three times bigger than me and very sun—it has burnt him all rich golden brown. The sun doesn't pain him, it just makes him look more like the earth he hoes. Daddy is very strong too. He can work even more land than the tin farmer they sent him from Oldfolks Ground. Daddy sent the tin farmer

back—he says we have to work the land ourselves and smell and feel and taste it and dig our toes in it if we are going to stay here and grow. I always liked the toe-digging part—it was the first thing I remember Daddy telling me about—next to Mother.

No matter how hard Daddy works he is always there when I want him to tell me about Mother. I think that talking about her makes him sad, but Daddy says that I should know and love her memory and understand how much she loved me. He says that it will help me when I grow bigger.

When I took Daddy his water at topsun, I started to bring Tookie with me, but it hurt his eyes. They are big and lilac coloured. Daddy says lilac is the colour and name of a flower we don't have here, but I've seen pictures of it. Tookie is all soft and furry and he looks like aftereve. Tookie is very good to me: he sings me his best songs and he is always telling me of the warm underneath where he likes it best and his people live and sing and think with each other. When I am sad he does tricks with his long furry tail just to make me smile. He promises he will never go back underneath as long as we think together.

I was sorry I hurt Tookie by taking him out at topsun. I can be for a while in topsun so I thought Tookie could too, but it pained him. I guess he is unsun under his fur. I asked Daddy if topsun pained Mother and he got all sorrow-hurt—I'll never ask that again.

Sun doesn't pain Daddy though—not upsun or downsun or topsun. That's why he can be such a good landsman. He doesn't have to wear a shield at all, and I only have to wear one when I'm out for long—I am half-sun, he says.

I asked Daddy about the big starship last night.

"It was as big as a mountain and carried the hopes of a world in it, Bitsy," Daddy said.

"What are *hopesofaworld*, Daddy?"

"Like dreams in your head when you sleep, Bitsy. All the people worked very hard to build the ship and leave in time."

"But why did they have to leave? Wasn't it a nice world?"

"Yes, it was a nice world, Bitsy, but some of the people living on that world wanted everyone else to live the way they told them to live and it ended up in what we call a *war*."

"What's war, Daddy?"

"What's war? Well, war is . . . Look, Bitsy, you know how two big purple rain clouds can go flying along in the sky, each cloud going its own separate way. Well, if those two clouds go flying along and should bump into one another, each cloud thinks it's on the right path and that the other cloud crossing it is wrong. So the two

clouds bump very hard and keep pushing at one another until one of them gives way."

"And when they bump, Daddy, the two clouds make a big roar of thunder—is that war?"

"Yes, and the thunder is the result of their fighting, or bumping, and people act something like these clouds; they go along on their own paths and then two groups of people bump, each group thinks they are on the right path—and they fight so they can continue to go along their own paths," said Daddy.

"But when the clouds bump and they war one cloud doesn't just go along its path afterwards; they get all mixed up and make rain."

"That's something like what happens to people, Bitsy, except that they make tears instead of rain."

"What if they bumped to have a war, Daddy, and no people came but went around the other group, instead of mixing and making tears?"

"Well, each group thinks it's on the right path and the leaders tell the people to go out and be right even if they have to kill each other. That's how they war."

"What's kill, Daddy?"

"When something is killed it stops running, like that tin man at Oldfolks Ground—it just stops."

"Can't it be put right again?"

"Not very easily, Bitsy. And we all stop sometime or another and when we stop we take a very long pleasant rest."

"I don't think I understand why people war though, Daddy—it seems so silly."

Daddy laughed with me and told me, "I don't really understand either, Bitsy. And it *is* silly—but wars have ended now."

"So did they all get on the big Starship and come here so they wouldn't get bumped? Even mother?"

"Well, yes. But they had to live on the Starship for a very long time because they were making a trip—like we make a trip to Oldfolks Ground—and because of the fire behind them from the war on their world, and because of the—the cold fear between the stars, the only child born on the ship was your mother, Bitsy." Then Daddy reached over and held my hand very, very tight.

I don't always understand what Daddy means, but he says it true. I guess he means that they were tired from the long trip and could never get fresh again. I know I get tired when we go to Oldfolks Ground and it's only a sun away. Some of them at Oldfolks Ground are soft like me and some are metal and some are mixed, but all are very tired and old.

Daddy says that I must go to Oldfolks Ground with him very soon. I guess they want to see me again. I really do like going when

I'm there; they give me sweets and salts and show me nice pictures. Last time a man wanted to know if I knew where the pictures were —he thought I might remember them. I told him he was silly, I had never been to any place like that, but as I looked at everything and they talked, I did remember —almost. When I told them about it they got very excited and pleased. Daddy got only partly pleased. He said it was good to remember an old world but better to grow in a new one.

Daddy is working on a shield for Tookie now and when he is finished I can take Tookie with me when I go out in the sun or when we go to Oldfolks Ground. I don't need a shield for going to Oldfolks Ground now because Daddy fixed the sled with a special colour in the top, but it doesn't mild the sun enough for Tookie. Daddy told me a long name for Tookie: "the highest form of native inhabitant." I don't know about that—Tookie may be high, but he is really very little; he isn't as high as half of me. Maybe we will go to Oldfolks Ground tomorrow if Daddy finishes Tookie's shield this aftereve.

During sun we went to Oldfolks Ground. I'm so confused now. They told me more about the pictures and they showed me the ship. It really was very big, but I don't think it was as big as a mountain, not quite. It was a small silver-rusty mountain, maybe. Beside it was a little Starship like a baby; I didn't know about that baby one. They showed me a picture of my mother—she does look as if she ate violets and cream for breakfast —it made Daddy cry sorrow. I think he would have cried tears but he didn't want the others to see him.

Tookie went too and the old ones liked him. They wanted to keep him there and see how he was, but Daddy said no, Tookie had to come home with us. They asked me all sorts of questions about the stories that Tookie thinks me and what kind of songs he sings. I don't know why they couldn't hear him sing. I really don't think Tookie liked them much and even with his shield he was pained when we got home and he hasn't talked to me all aftereve. Tookie didn't like the music they played for us either—he says it was all flat as the sands.

I think Daddy almost *warred* with them too.

"You should come back here and let her learn. You know we have enough supplies," the oldest one said. "She should learn to remember and know her heritage and culture."

"No," Daddy told them with a big voice, "She must learn of this world and think of the future, not your past. Your way has ended."

"What you plan is wrong," the

old one said, "Wrong and evil! Think what you are doing to the child! It's wrong! And it won't work anyway."

"Growth is everything and your way means the end of growing. Don't you understand?" Daddy was all hurt-quiet and mad with them. I thought they might touch one another to pain them but then we left very quickly.

When we got home Daddy went into his book-looker and stayed there for a very long time. When he came out I asked him about it all and if they had warred.

"Bitsy, no matter what they say at Oldfolks Ground, the only things that matter are love and dreams and believing in them even when it hurts," Daddy said and rubbed his rough hand on my head. I like him to do that because it feels so warm, like some of Tookie's songs.

"Do you understand, Bitsy?" and I said yes, though I don't really. I think I feel what he means. He said he would explain more to me later, but not now. Maybe if I know too then Daddy won't hurt so much.

Tookie feels better today and he sang me a song that was the best yet. I asked him if he knew what was the matter between Daddy and the old ones and he sang this song. It made me cry but I cried with loving everything so much because it was so good it made me sad. Tookie sang it twice. It was a song of one who gave and gave and no one knew he was giving until he met someone else who was the last and she was foolish for love and she gave and gave too. When they were together they both gave and then they got even more back, and then it didn't matter if no one else really knew that they were giving. It was so nice-sad because one of them had to do some hard giving for a dream that was promised and this ended their being together.

When Daddy came in he was mad with Tookie for singing it, but I think he was more hurt than anything else. I don't know why. Maybe Daddy thought I was hurt-crying instead of being loving-sad. Daddy didn't want to tell me about mother tonight. He said he would tell me tomorrow aftereve if he felt he could. Maybe I'm not old enough or good enough to understand yet. I wish I were.

When I woke up the sun was hot and bright and there were people from Oldfolks Ground out on the land. It is the first time they ever came here. I woke up Daddy and he was unhappy.

"You stay in here, Bitsy, and wear your shield. I've got to go out and talk with them."

"If I stay in here why do I have to wear my shield?"

"It isn't just for the sun. It keeps the sighs and sorrows of forgotten things away from you. Go without that shield and they'd

make you remember all sun long and aftereve too. You put your shield on and don't take it off until I come back. And put on Tookie's shield too—then you can hear one another, but no one else."

"Can't I go out with you if I wear my shield, Daddy?"

"No, Bitsy. Tookie will keep you busy until I come back."

So I went for Tookie and he wasn't very happy either, even after I put his shield on. He said that soon he'll have sung all the songs I can hear, especially if the old ones come here again or if I keep going to Oldfolks Ground with Daddy. I wish the old ones would go away. I wish I did understand everything. I'm sad. Even Tookie is going away from me now.

I watched Daddy then, after Tookie went quiet. All the old ones wore a shield of course. They stood out in sun-hot and I don't think they liked it very much. Daddy kept shaking his head and the old ones kept waving their arms. Finally they seemed to get tired and they went away.

When Daddy came back in I asked him why he didn't wear a shield when the old ones and Tookie and I wear one.

"I have two shields built in, Bitsy. The one for not hearing the sighs is negative esp and the one for keeping the sun from paining me is pigmentation. You have only a little bit of pigmentation, which is why your skin is so white and the sun can burn you."

"But why aren't I burnt all earth brown like you are?"

"Pigmentation is what makes your skin dark if you have a lot of it, or coloured light if you have just a little." Daddy stopped then and looked at me long and then he said, "Your mother had even less pigmentation than you have, yet she came with me and worked this hot sunswept land and we had you." Then Daddy held me close for a minute and told me, "You think about all this now and I'll tell you more tomorrow. I can't put it off any longer because I promised that we'd go to Oldfolks Ground next sun."

Daddy told me this aftereve that he was the last of all after his first world warred and the only reason he was the last was because he could understand and knew what was happening earlier and more. His world had the very same name as the ground he works here too—Earth. Daddy said that when he felt it was about to catch fire he went to a safe place and stayed for a while until it was cool enough for him to come out. I didn't think Daddy's pigmentation would let him be hurt by hot, but I guess it could do it there because he said it was a different kind of hot.

Then Daddy went to where they had been building ships only they weren't Starships, they were

only for a little ways—"short jump jobs," he said. But what was only a short jump for fifty men could be Starship for one man, he knew. First Daddy looked all over his world for someone who could understand like mother could—and I can too, he said—but no one was left so he got in his ship that was a Starship for him and came here. His ship was that little baby one I saw beside the big Starship at Oldfolks Ground.

Daddy said that soon after he got here and started to work the land and met Tookie's people from underneath, that then the big Starship came from another world far away. It landed at what came to be Oldfolks Ground. He said that he and the old ones, and mother, were sort of cousins because they had had the same mother and daddy long ago, but that their sun was weak and they didn't need pigmentation to protect them from sunhot. They were from an old empire long forgotten, but I don't know what *empire* means.

Mother could understand with Daddy, and she never had anyone else that understood with her, and that is why Daddy misses her so very much and is so sad when he thinks of her. Daddy said that I must always remember that she believed in life and love and dreams so much that she went with him to the sunhot and that later she loved me so much that she gave up her chance of staying with Daddy just so I could be and help give birth to a new world. He said that tomorrow at Oldfolks Ground I should remember that Daddy loves me as much or more than he loved Mother because I am even more a part of him. He said a lot more which I didn't understand and then he told me it would be decided tomorrow whether or not I stay with Daddy.

Not stay with Daddy!—I can't imagine that. I am very frightened.

It was terrible at Oldfolks Ground this sun. All they did was talk and misunderstand.

Finally one of the old ones said, "It's all wrong. She must stay with us." I was frightened because they seemed to be winning and I cried.

"See what you're doing to the child! Leave her with us. You cannot begin a world with such a wrong," the old one said.

"I don't need your ship any more for salts. Don't you see, we're not dependent on you any longer," Daddy told them.

"But it's *incest!* You can't . . . you can't do it," said one of the old ones more metal than flesh.

"Yes, but your way means *death!*" said Daddy, and then we came away.

I asked Daddy on the way home what it all meant and he said I'll know in a few years. I asked him what that word means and Daddy told me, "It means we can make more understanding ones like ourselves just by loving."

I think it sounds nice because now I only have Daddy and Tookie.

I know Daddy likes Tookie better than ever now and wants him never to go back underneath. When we got home from Oldfolks Ground he asked Tookie to sing his best song again, the one about the people who were foolish for love and gave and gave, and this time Daddy seemed to hear it with me.

"Three naked men I saw," declared the doleful old Scotch ballad; "one to hang, and one to draw/ and one to fill the corbie's maw. . ." And many years later, writing on Corvidae, *Alfred Newton, Fellow of the Royal Society, said of corbies (aka crows) that they were "highly developed;" and that the crow's "confidence in the human race has been so long encouraged by its intercourse with an unarmed and innofensive population that it becomes a plague . . . where it is abundant." Mr. Newton, in the course of a long life (1829-1907), had travelled widely, and presumably knew what he was talking about. The question now put by Will Stanton: Is the crow's confidence in the human race about to be shaken? And if so, why? and for whom? or what? One also remembers the Talmudic statement that after the destruction of the Temple the gift of prophecy was given over to children and— But that is another story.*

THE SCARECROW OF TOMORROW

by Will Stanton

MAX PUT THE BOW AND ARROW on the patio floor beside his chair and picked up a can of beer. It was about 2:00 on a warm Saturday afternoon.

Next door his friend Barney came out of the house with a load of trash. Max motioned to him. Barney deposited the trash and stepped across the hedge.

"Get yourself a beer," Max said, "you know where it is."

Barney went in the back door and came out a moment later with an opened can. He sat down, glancing casually at the bow and arrows. "What do you hear from Ellie and the kids?"

"They're fine," Max said, "she called last night. Seemed disap-

pointed that I wasn't coming up for the weekend, but it's too rough a trip for just two days. I'm going up Friday for a week."

Barney nodded. "By the way, we're counting on you for dinner tonight. Ann said I'd better remind you."

"You bet." Max leaned back in his chair, crossing his legs. "Wouldn't miss it."

Barney reached down and picked up the bow. "Been shooting crows?" Max shook his head. "Oh? I saw you out the window a little while ago. I thought that's what you were doing."

"Huh uh," Max shook his head again. "I was shooting at crows but I didn't hit any. I got the scarecrow once." They both looked down at the garden 60 or 70 yards away. Beyond it an open field stretched for another hundred yards to the beginning of the woods. In the middle of the garden stood a scarecrow and scattered around him were half a dozen glossy birds moving awkwardly among the cornstalks and cabbages.

"That's a pretty fair shot with a bow," Barney said, "you were lucky to hit the scarecrow."

"Well, you aren't allowed to use firearms around here," Max said, "so I haven't any choice." He swallowed the last of his beer and stood up. "My hands are tied." He went in the house and came out with two more cans.

"You ought to get a little portable cooler," Barney suggested, "they don't cost much. Then you wouldn't have to keep running into the house all the time."

Max picked up the bow, fitted an arrow to the string and took careful aim. It stuck near the edge of the garden and skidded into the weeds. None of the crows paid any attention. "You see?" Max said, "they aren't worried. If I try to get close enough for a decent shot, they fly away."

"You've got to use strategy," Barney said, "sneak up on them. I learned all about it in the army." He took a long pull at his beer. "What you do is wear something green and fasten some weeds to your hat. Then you crawl along on your elbows—"

Max shook his head. "Too much poison ivy down there."

"You can get shots for poison ivy—"

"No," Max said, "I don't think that's the answer."

Barney was examining the bow. "This should do the trick all right. The only problem is to get close enough. Now, if we built something like a duck blind—"

Max looked thoughtfully. "You'd have to get in it sometime when the crows couldn't see you. Then you might wait there half a day without getting a shot." He got to his feet. "Well, let's go down and gather up the arrows."

When the two were about 30

yards away, the birds flew up and started circling a short distance away.

"What do they eat?" Barney asked.

"I don't know—corn, I guess—beans—tomatoes—"

"I didn't think crows liked tomatoes."

"Maybe they don't," Max said, "they probably just eat them out of spite." They walked into the garden and started collecting the arrows. After a minute they had found 8 or 10.

"Max, come here a minute." Barney pointed to a cantaloup on the ground with an arrow piercing it dead center. He looked back to the patio. "How far would you say that was—75 yards?"

"I doubt it—65 maybe." Max reached down and pulled out the arrow.

"O.K. then, 65 yards. That's what I call real shooting."

Max shrugged. "Just lucky." They started back toward the house. Before they reached the patio the crows had returned. Max went into the house for more beer.

"You mind if I have a try?" Barney asked when he came back. He selected an arrow carefully and shot it 100 feet beyond the garden. "You know this bow has more power than you'd think."

"It would kill an elk," Max told him, "kill a water buffalo. Anything but crows."

Barney took a swallow of beer and picked up another arrow. This time he was 50 feet short. He had another drink. "This is what you call zeroing in. One over, one under and the third one is on the mark." He put the next arrow 75 feet to the left. "I may have allowed too much for the wind," he said.

"You probably did," Max said, "there isn't any."

Barney put down the bow and lit a cigarette. "You know—I'm wondering if we've been approaching this from the wrong angle."

Max considered. "I suppose it's possible."

"Look at your scarecrow for instance. Take a good look."

Max looked. "He won't win many prizes," he admitted.

"A pair of pants and coat full of holes," Barney said, "a head made out of an old sack stuffed with straw—"

"I've noticed the crows don't pay much attention to him."

"How can you expect them to? Scaring crows is like selling cars or anything else. If you expect to be successful you've got to look successful."

Max stared down at the garden, squinting his eyes. "Maybe if we could give him a little more look of authority—" he glanced over at Barney—"what's that?"

Barney had stacked up the empty cans in two columns three

cans high. Then he got the pretzel can from the table and carefully placed it on top of them. He looked at it with satisfaction. "That," he said, "is the scarecrow of tomorrow."

"I see," Max said. The top can swayed and fell to the ground knocking over the other cans. "It doesn't seem very stable."

Barney nodded. "You're right. It's too human." He stacked the beer cans again—this time in three columns of two each, and put the big can on top. "There," he said, "that's patterned after the kangaroo—two hind legs and a tail. Notice the improvement?"

Max leaned forward for a closer look. He frowned thoughtfully. "I'm trying to think where I've seen something like that—"

"You mean it isn't original?"

"Wait a minute." Max went in the house. Barney picked up the bow and began firing the rest of the arrows. He looked up as Max came toward him with a sheet of paper in his hand.

"There—what do you think?"

Barney studied it. It appeared to be a childish drawing of a mechanical man. The body was a cylinder and it was supported by three legs. "Well I'll be damned," Barney said, "where did you get it?"

"Tommy drew it," Max said. "He's crazy about science fiction and he's always drawing rockets and Martians and so on."

"Then this isn't supposed to be a scarecrow?"

"Huh uh," Max sat down, "Tommy doesn't approve of scaring crows. The only reason I've been shooting at them is because he isn't here."

"It's still a good design," Barney said, "I like the idea of the four arms—you can do twice as much work that way."

"Why not eight arms?"

Barney stared at him in disbelief. "You've got to be kidding?" Max shrugged. "Eight arms," Barney said, "oh, brother."

Max emptied his beer. "What's that on top—an antenna?"

"That's the one feature I'm not too happy about," Barney said. "I've been thinking about a built in antenna. It's better protected."

"Could be, but you'll never get the same results."

Barney scratched his jaw. "I suppose you're right—I don't know too much about it." He thought for a minute. "Dave Michaels could probably tell us—he's an electronics expert."

"Good point," Max said, "I'll give him a ring." When he came back from the house, Barney was holding the drawing at arm's length, his eyes half closed. "His wife said he was playing golf."

"Oh? Too bad. Well, I guess we can manage."

Max handed him a fresh beer. "I called the Club—they're having him paged."

Barney nodded. "Good work. When you want advice always go to the top. No point in taking second best." He glanced up as his wife came out of the house and walked over to the hedge.

"I'm going for a swim," she said, "why don't you two come along?"

"Sorry, Ann," Max said, "I'm expecting an important call."

"Yeah, we have a lot of work to do," Barney said.

"I see." She went over and got in her car. "Better stay out of the sun." Max watched as she backed out of the drive and drove away.

"You've got a fine wife there," he said.

Barney was rearranging the three stacks of cans, moving them farther apart. "Who—Ann?" he said.

Max lit a cigarette, kicked the bow out of his way and sat down. "She's the one I had in mind."

"None better," Barney said. "Look, there's no point wasting any more time with these cans, why don't we go over to my place? I've got a lot of sheet metal in the basement and stove pipe."

"Fine," Max said, "the hardware store will send over anything else we need." He picked up his beer and followed Barney through the hedge.

They had finished the legs and body and were working on the arms when Ann arrived home. She came down the basement steps and approached them warily, avoiding the pitcher of martinis on the floor. "I ran into Dave Michaels at the Club," she said. "He wanted to know what you two were doing."

"Did you tell him?" Barney asked.

She turned to Max. "He said he'd tried to call you several times. He seemed a little upset."

Max put down his soldering iron. "Maybe I'd better give old Dave a ring."

"I believe I'd wait awhile," she said, "I'd wait about a week."

He shrugged. "Well, we don't need his advice anyhow." He picked up the tinsnips. "Should we make all the arms the same length?"

Ann turned and started up the stairs. "Dinner will be ready in half an hour."

"Any time," Barney said. "We can put on the finishing touches later."

It was after dark when the creation was finally completed. Max switched on a flashlight. "Let's go set it up."

They went across the hedge and down the path. Max moved the old scarecrow out of the way and they put the new one in it's place. Then they stepped back and played the light on it. For a moment the two men were silent. Barney cleared his throat.

"Funny the way things happen isn't it? I mean one morning Co-

lumbus gets out of bed and says 'damn it all, I think I'll go discover America' and the next thing you know here we are."

Max nodded. "I was thinking the same thing."

"This calls for a drink." They turned and followed the wavering circle of light back up the path.

Max was sitting in the kitchen the next morning, drinking black coffee, when Barney came to the door. "Come on in," he said, his voice husky.

Barney leaned against the door frame. "You looked down in the garden yet?"

"What? Oh, no I forgot all about it."

"Better come and take a look."

"Yeah?" He took another swallow of coffee. "I'm not feeling very playful this morning." He went out the door, stepped down to the patio and stopped. Where there had been a half a dozen crows before. now there were fifty. They were on the ground, in the air and perched on the arms of the metal figure.

"Something to see, isn't it?" Barney said.

For a moment Max stared—then he turned on Barney suspiciously. "What did you do—put out some kind of bait for them?"

"I just got here," Barney said, "and anyway look at them—none of them are eating—they're just sort of hanging around." He took a long, thoughtful drag on his cigarette. "Do you realize what we've done?" he said slowly—"we've invented the world's first cheercrow."

"We built it," Max said, "we didn't invent it."

Barney snapped his fingers. "Damn it, I'd forgotten. It was Tommy's drawing wasn't it?"

"Yeah," Max rubbed the back of his arm across his forehead. "It was his drawing."

Barney nodded slowly. "Wonder where he got the idea?"

"Who knows what goes on in a kid's mind? Come on—let's go down."

As they approached the garden, the birds in the air circled higher, calling noisily back and watching.

When the two were about 25 yards away, one of the circling birds peeled off from the formation and started down at them in an angry drive.

"Look out!" Max stumbled and went down to his knees. Barney was crouched beside the path, one arm shielding his eyes as the bird swooped by no more than a foot above his head. It banked and climbed slowly back to join the others.

Barney cautiously lowered his arm. "Let's get the hell out of here," he said.

Max picked up a short length of board from beside the path and got slowly to his feet. "No damned

bird is going to drive me off my property." He stood for a moment, his face tense, and then took a cautious step forward, holding the board awkwardly in front of him. At the third step the entire flock rose with a noisy beating of wings and headed away toward the distant trees.

"Well," Max looked down at the piece of wood he was still holding and with elaborate casualness tossed it aside. "You ever see anything like that before?"

"Sort of," there was a trace of hoarseness in his voice. "Sometimes when there's a young bird on the ground the mother bird will fly down like that to protect it."

"There wasn't any young bird here."

"I know."

They walked ahead into the garden. Their invention was standing there just as they had left it—rather poorly constructed and looking slightly ridiculous in the late morning sun.

"It doesn't make any sense," Barney said finally, "you know that? You just can't figure this thing out."

"O.K." Max said, "we won't try. Let's get back to the house."

"It's funny—" Barney fumbled in his shirt pocket for a cigarette—"you almost get the feeling that they know something we don't."

"Oh hell," Max said, "they're only birds. Let's go."

Barney shrugged. "Might as well."

Halfway up the path the two turned and stood for a moment, looking up into the sky.

Engineer Habicht was said to be a genius at devising the tools of mankind's oldest intercommunal endeavor. His son Bruno, as everyone knew, was a moron. But was there, in the long run, anymore than in the short, a difference between them—except perhaps in scale? This the last of three stories by Dr. Nesvadba, psychiatrist at Prague's Faculty Polyclinic.

THE XEENEMUENDE HALF-WIT

by Josef Nesvadba

THE FIRST YEAR IN SCHOOL they sent him back home because he was inattentive, forgetful, scatter-brained, and always fighting—he even threw an inkwell at the teacher. It was a clear case of oligophrenia and the doctors offered no hope. And yet the wife of Habicht the engineer loved this child above all. She discovered that he had a head for figures and before the war engaged a governess, an elderly lady, who looked after him every day. The half-wit's name was Bruno.

A cousin of mine, who was sent to work in Xeenemuende during the war, told me all about him. My cousin lodged with a seventy year old teacher who was to take the place of the strict governess at the Habichts, after she had been killed in a mysterious air-raid on October the fourth. Up to then Xeenemuende had never been touched by the Allied bombers. There did not seem to be any important objectives there, either. There was only the underground factory, and nobody knew what was being made there. In the early hours of the morning of October 4th one small light-calibre bomb made a direct hit on the house of Bruno's governess and killed only her, because the old lady lived alone. At the local command they swore there hadn't been an enemy plane within miles. They talked about long-range artillery fire. But why the British long-range artillery at Dover should bother to fire at Bruno's governess's house nobody had the faintest idea.

The old teacher was glad to accept Mrs. Habicht's offer. He

earned a bit by coaching, because his pension was too small to allow him even to buy potatoes on the black market. Only they didn't mention to him that Bruno was a half-wit. He didn't find it out until their first meeting. Bruno was fifteen, with the face of a six-year-old and some of the habits of a toddler. During his lesson he shot after a fly and swallowed it without turning a hair, pushed his fountain-pen up his nose and poured the ersatz coffee Mrs. Habicht had made for the teacher over the poor man's trousers. He of course got up and wanted to leave at once. The desperate mother spent a long time persuading him to stay, raised his pay and promised to cook supper for him every evening if he would only take on her son. And as if he suddenly wanted to ingratiate himself with the teacher, Bruno stood at attention and recited the multiplication tables, division tables and square roots, in a loud voice.

"He's got a wonderful head for figures," said his mother. "He can remember anything. He knows the Xeenemuende telephone directory off by heart." And Bruno promptly recited the first sixty names and addresses and telephone numbers. But he had no head for grammar, he was hopeless at history, and he couldn't read the simplest sentence. And he was fifteen, if you please. The teacher always counted the minutes to supper-time, never in all his life had a lesson seemed so long, and never before had he felt so unwilling to go to his pupils.

About a month later he caught sight of Bruno fighting a gang of younger children in the street. He was hitting a couple of eight-year-olds, tripping them up and kicking them when they were down.

"Bruno!" he shouted from a way off, but he couldn't run because he had trouble with his breathing, and so it was the butcher's wife who dealt with Bruno, because she had seen the whole thing from her shop. She grabbed him by the collar—she was a muscular woman—and just lifted him over the fence into the Habichts' garden. Then she took the other children home with her and washed their grazes for them.

"He's always doing it," she said to the surprised teacher. "An idiot, that's what he is. Ought to be in a Home. If his father wasn't such a bigwig they'd have taken him away long ago. Everybody's surprised at you for going there at all."

But it was a particularly good supper at the Habichts that evening, and you could even taste a hint of real coffee in the ersatz. Even Bruno was behaving quietly, and only stared sulkily at one spot in the corner of the room, and so the teacher couldn't bring himself to give notice.

That night the whole town was

roused by another catastrophe. The butcher's shop opposite the Habichts was destroyed the same way as the governess's home had been: by a small-calibre bomb or an artillery shell. The missile must have passed in through the window, and exploded inside the room, which was demolished. The shop was burned down.

Next day Bruno was smiling all through his lesson. The teacher began to feel anxious.

"Who looks after your boy all day?" he carefully approached Mrs. Habicht at supper.

"Nobody. He's awfully good. He spends all his time on the verandah at the back of the house. His father put together a little workshop for him there."

"I'd like to see that."

"No!" the boy blurted out in a low, furious voice, and his face darkened.

"He won't let anybody go in there," his mother explained. "That's his kingdom," and she winked conspiratorially at the teacher. "I've watched him through the keyhole sometimes," she added as she conducted the teacher to the gate. "All day long he plays with a set of boy's tools and some stuff my husband has brought from the factory for him. Harmless play."

"Are you sure?" the man replied, looking across the road at the burned-out butcher's shop. "You never can tell with children like that. He's not well, you know. He really ought to be in an institution . . ." But that made Mrs. Habicht really angry. So he had gone over to the side of the neighbours who hated Bruno!

"Oh, no, not at all. I'm really quite fond of him. I'm sorry for him. But I think he'd be happier in a Home."

"Never!" Mrs. Habicht stamped her foot with fury. "Never, as long as I live!"

And so the teacher decided to have a look at Bruno's laboratory for himself next day. He went straight round to the verandah at the back. The boy hadn't locked himself in. He'd got a little kitten tied up and was torturing it with faradic current. The creature was half-dead when the teacher rescued it. Bruno did not want to give it up. They fought each other for it in silence, the boy making unintelligible grunts. The old man's heart began to pain him. There was only one thing to do. He aimed a blow at the boy's head. Bruno dived into a corner and stared at him with hatred.

"Krumme!" he spluttered. "You Krumme!" Bruno's governess had been Miss Krumme. The tutor's name was Brettschneider. The boy knew that perfectly well. The old man felt a strange horror creeping over him. He did not even start his lesson. Avoiding Mrs. Habicht, he went to find her husband at the works.

He was led along endless underground passages, with two armed men preceding him and two behind. It was like being in an anthill that was larger than life. The engineer listened to him impatiently.

"I know my boy has been responsible for a lot of trouble. He's a mischievous lad. But I can't imagine how he could have had anything to do with either of the tragedies."

"Well, we'll see," said the teacher. "Nothing will make me sleep at home tonight. You can keep watch with me in the garden if you like." He lived in a little house near the station.

"You must excuse me. I've other things to think about. More important things . . ." Mr. Habitch refused.

But he came dashing along in the morning. For in the course of the night the teacher's house had been destroyed by a small projectile which exploded by his bedside. Hidden in the garden he had seen quite clearly the fiery ballistic curve of the missile, which was no bigger than his hand and left a trail of smoke behind it.

"I'm going to the commander at once," he told Habicht. "Would you like to come with me?"

At that time the commander was Major von Schwarz, and the factory was also under his orders. They were admitted to his presence.

"An extraordinary story. Quite incredible. And you admit it's possible?" the Major turned to Mr. Habicht. "Do you really think your son can have had anything to do with these catastrophes?"

The engineer stammered and turned first red and then white, and did not know what to say until the Major roared at him.

"I must confess, Major Schwarz," he said then, "that a month ago I took the plans of our new secret weapon home, Vergeltungswaffe zwei. We had so much work in the designers' office that I couldn't cope with it. The boy may have seen the papers somehow. He can remember a lot of things. He's quite clever at some things, too. Nobody can say for sure what's going on in that head of his . . ."

This information decided the elderly teacher's fate. He had unwittingly unearthed a secret—what was being produced in the underground factory. And then, the engineer's son was now more valuable than the man who had informed on him. The teacher disappeared into a concentration camp. That was what saved him in the end.

"This means he must be a genius," said von Schwarz, as he drove round to see Bruno, accompanied by Habicht and the company cook.

"He's a half-wit," said his father, "we've got a doctor's certificate."

"Hasn't it dawned on you, you

block-head, what your boy has managed to do? You and a dozen people like you haven't yet managed to guide our rockets to a definite target. You can't aim them. And here's a fifteen-year-old boy who can hit a window from a distance, to fifteen inches or so. Can't you see how important it would be for us if our V2 could destroy set targets in London instead of just falling anywhere?"

The engineer was silent.

"But I've never taken the target plotting system home . . ."

"Of course you haven't because there isn't one. That's what your boy has worked out . . ." And Major von Schwarz ordered the cook to unpack the cakes he'd brought. For the first time in four years of war the man had been making cream for a chocolate cake, filling eclairs and spreading jam on a Victoria sandwich.

Bruno threw himself on the good things like a pig. Literally, pushing his nose into the cream and the decorated icing. The cook was thunderstruck and Mrs. Habicht lamented that he'd be sick. Only Major von Schwarz waited calmly for the boy to finish. At last he boicked and wanted to make off.

"Wait a minute," the major held him back with a hand of iron. "You can have cakes like this every day if you'll tell us how you did it."

"How he did what?" his mother answered for him. "He hasn't done anything. He's a good boy." The Major pushed her roughly out of the way.

"How do you aim your rockets?" he shouted in Bruno's ear. "Tell the truth or I'll have the hide off you!" And he pulled his old riding-whip out of his jackboot. He cracked it once and Mrs. Habicht fainted. Nobody bothered to revive her. The boy stared sulkily into a corner and his over-large tongue licked the crumbs of cake round his mouth. He obviously didn't understand. He didn't resist when the Major whipped him. He just looked the same way.

At length the Major broke his whip in half. He was covered in sweat and breathing hard. He let the boy go, straightened up and yelled at Habicht.

"By morning you're going to find out how the boy does it, or else the whole family'll be court-martialled. And all your relations," he added as he went out at the door.

Outside, the SS men were already jumping out of their cars and taking up positions round the house. Von Schwarz was still swearing as he drove away. That night he didn't go to the Town Hall to sleep, preferring to spend the night with his soldiers. There was nobody left in his Town Hall office except his pretty secretary, whom he'd brought from Italy at the beginning of the war.

She was killed that night with the rest, because the Town Hall was demolished by a small pro-

jectile which came through the roof, this time, and burned the place down to its foundations.

The alarm was sounded in the barracks, the Major fastened his heavy Parabellum pistol on his belt, and was driven to the Habichts' house. "Where is Bruno?" he asked the engineer shortly. In trembling voices the Habichts said their son had gone to bed. He was found on the verandah, with his toy railway lines, just putting the last touches to another rocket on his toy launching arm.

Von Schwarz shot him from behind, with a bullet in the nape of the neck. Mrs. Habicht threw herself on him. She tried to grab his pistol, mad with pain. She tore her hair and rent her clothes.

"What had he done to you? You murderer!" The Major tried to explain the situation to her.

"We cannot allow anyone to kill his neighbours just because they do something to annoy him. And with modern technique, at that. He was an idiot."

"And what are you doing? How many people have you killed in London with your rockets? Did any of those Englishmen do you any harm? You've no cause for your murders. You're idiots, all of you, every one of you . . ." Von Schwarz wanted to have her arrested on the spot, but the air-raid sirens sounded.

"No," he shouted into the phone, "there's no need to raise the alarm. I've got rid of the source of danger . . ."

In reply incendiary bombs began falling on the residential part of the town. The Allies had discovered the secret of Xeenemuende. A quarter of the inhabitants lost their lives in that first air-raid. Habicht the engineer was among them. Some people say it was a pity. He was a wonderful engineer, they say. One of the fathers of rocket weapons. A genius.

It was to observe one sort of Transit of Venus that Captain Cooke originally visited Tahiti—where, like Captain Bligh, who came there not long after, he had a devil of a time keeping his men from going native for love of local beauty and despite that need for Discipline which officials in every age and place are so certain is so good for us. Miriam Allen deFord (whose infinite variety age cannot wither) departs for a different Venerian—and fie upon those who have it, Venusian—*transit upon a more distant island, when and where, however, similar problems still exist.*

THE TRANSIT OF VENUS

by Miriam Allen deFord

NOBODY REALLY KNOWS WHEN the rite of the Buticontest began. Some archeologists place it as far back as the 20th century, which seems improbable; but it is undoubtedly very old. We do know that in its origin it was far from the quasi-religious ceremony it is today. Myths and legends seem to indicate that in the beginning it was merely a sort of display of physical pulchritude, and that any tests for superiority in other fields were very superficial. Indeed, the name itself is an adaptation of the word "beauty."

Nowadays, as everybody knows, the Buticontest fills the same place that was filled in ancient Greece by the Olympic Games. (It is interesting to note that our remote ancestors appear to have made some attempt also to revive these same Olympic Games, back in the Terran Era, with men as well as women participating; but as they made a fetish of the purely athletic aspects of excellence, and neglected the intellectual ones, advancing civilization put an end to them.)

It is no secret to the sophisticated that interplanetary politics and diplomacy play their part both in selecting the Buticontest contestants and in awarding the prizes. If contestants from the Colonial Planets were not given

some latitude, a Terran girl would always be crowned as Queen. Terra has so many more human inhabitants than any other planet that the choice is infinitely greater, and short of emergence of a supermutant elsewhere, the laws of probability would practically insure a Terran victory. If girls from Mars, Venus, Luna, Ceres, Ganymede, and Titan had to compete on equal terms with those from Terra, they would soon become disheartened and in the end we should have no entries from the colonies at all—which would mean the gradual extinction of our most important symbol of interplanetary solidarity. Nevertheless, there are rigid rules which apply to all contestants, breaking of which means disqualification.

It is for this same reason of interplanetary unity that the Buticontest is held every five years, instead of annually as once was the case; distances are so vast that more time is required both for local elections and for the far-flung visits of the reigning Queen.

Since every child knows all about the Buticontest, and every girl almost from infancy dreams of some day being able to compete in it, the scanner may wonder why anyone should devote even a few feet of tape to it. What every child does not know, however, and few adults have ever known (for this story has been hidden in the official archives for centuries and has only recently been released), is that once there was a Buticontest which went wrong. It happened in 2945.

The sponsoring Terran Region that year was the American, and of course AR's twin colony is Venus, just as the Eurasian Region's is Mars, and so on. So Miss Venus of that year was a matter of special interest—though naturally that was no guarantee that she would win.

But win she did. And then all thunderation broke loose. For only two days later it was revealed (a) that Miss Venus was actually a Terran by birth (worse, from the northern section of AR), who had lived for less than a year on Venus; (b) that her doctorate in nuclear physics was a fraud; and (c) that she had not really paraded entirely nude, as was the strict rule then as now, but had worn a close-fitting plastic sheath which revealed her measurements but concealed any possible defects of surface.

It was, of course, what is still archaically called a newspaperman who first trumpeted aloud this glaring scandal.

"Miss Venus a Phony, Exposed by Anonymous Letter," videoshouted the Interplanetary Network in its Latest News Report, by Our Special Correspondent Kitsayo Okamura. "Buticontest Invalidated."

He went on. "Sobbing, love-

ly Aletta Braun, Miss Venus, this quinquennium's Buticontest Queen, confessed to Contest Director Tubaj Mgambo that she was a ringer. 'I did it for love,' she said."

And so on and so on.

The archives do not go much farther. A lid was clamped down, discussion ceased, the next Buticontest took place as scheduled, and pretty soon the whole affair was forgotten. If anyone wondered what had happened to the discredited Queen, he was met with bland evasions. So far as public knowledge went, she had vanished, disappeared.

Here is the real story.

Aletta Braun was, as said, born in the northern section of the American Region of Terra, in 2927. Outside of the few gangling years of pre-adolescence, she was noted both for her beauty and her intelligence; she was a bright and lovely baby, child, and young girl.

But from the beginning it was evident to her worried parents that she also possessed a strange atavistic quirk which made her almost a mutation.

She never adjusted. Her pedianalyst said she had never dealt with a child so obstructive to social conformism. She never wanted to do any of the things she should want to do, and what she wanted to do was things that were unheard of, dangerous, insane, and almost subversive.

For example, from kindergarten on she flunked elementary physics, biophysics, chemistry, and biochemistry. Her parents caught her several times reading smuggled tapes of ancient verse and fiction.

When she became nubile, she refused to have her mate-computation made; instead, she announced openly, to her parents' horror, that "somewhere there must be a man she could love and who would love her"—irrespective of their genetic compatability.

As she developed physically, she made herself ridiculous and became the butt of her schoolmates by refusing any longer to remove all her clothing when she came into the temperature-regulated building; even in summer she wore some kind of garment reaching from her neck to her knees. She was expelled from three schools for this obscenity. Her pubertanalyst recommended that she be sent to a school for special children, but these all declined to accept her; they did not take cases so far removed from normality.

Her parents' duty was clear; they should have reported her at once to the Deviate Department, just as if she had been born with some physical or mental abnormality. They did not do so because they were weak, ashamed, and frightened. (This argues that they themselves were reportable cases, and perhaps accounts for some of their daughter's difficulties.)

When she reached voting age, at 18, she could not be enrolled as a citizen of the Federation, for she was not able to present evidence of a degree, an occupation, and listing in the Reproduction Selection roster.

What was to be done with her? With criminal foolishness, her parents, fearing discovery and disgrace, took her with them on a holiday trip to Venus—and abandoned her there.

The colonies, as is well known, are even more conventional and rigidly conformist than the mother-planet. There was no possibility that so deviant a creature as Aletta could make a normal life for herself there. The older Brauns simply fled like the cravens they were, leaving their problem child on the doorstep of the Venerian government. It developed later that they had doped Aletta with Narcosin one night, and departed while she was sleeping. By her bed they deposited a farewell tape they had spoken secretly in her absence, together with a substantial sum in Venerian credits. They had booked return passage without her knowledge, and by the time she awoke they were already on their way home. Back on Terra, they changed their name and moved out of the American Region altogether. To their new acquaintances they said that they had never had a child; that Reproduction Selection had listed them as N-3—permitted to mate but not to reproduce. All this was discovered by detectives employed by the Buticontest Committee after the fiasco and noted in the recently released secret file.

Their whole action was reprehensible, but not so callous, so far as Aletta herself was concerned, as it may seem. From the beginning, she had been mostly a source of distress and anxiety to them; how could they love a child who was like a changeling? And naturally Aletta reciprocated. As a matter of fact, when she woke up that morning and found the tape and played it back, her reaction was one of relief and gratitude. She checked with the hotel and found her parents had paid for her room for a month in advance. She had a month in which to plan a life on her own.

Since she could not qualify for any work requiring a degree, she was reduced to reading proof in the Venerian Microfilm Office. (It was that which gave her the opportunity to steal the forms for her forged certificate of birth on Venus and her forged diploma as a Doctor of Nuclear Physics.) It wasn't much fun, she was lonely and bored and resentful, but even a person as misdirected and aberrant as Aletta Braun was obliged to acknowledge that she had brought all this on herself by her wilful contravention of all the mores of her era.

She was ripe for trouble. And trouble came, in the shape of another variant—this time a native Venerian colonist. Jonny Velanco was three years older than Aletta, goodlooking by rather outmoded standards (he was not balding in youth as is normal nowadays), with a greenish tinge to his dark skin that suggested a misalliance with an indigenous Venerian somewhere in his family tree. (In the first days of the colony, it will be remembered, Solar Federation laws were pretty loosely enforced.)

Jonny's parents had both died in the Great Flood of 2925, when he was only a year old. He had accordingly been reared as a state ward, which perhaps accounts for his own aberrations. He did not share all Aletta's peculiarities, but though he was a registered plastic engineer with a good government job, and though he was listed as A-1 on the Reproduction Selection roster, he had found some way to evade every proposed mating, and was perhaps the only bachelor of 21 on all Venus.

How an engineer met a mere microfilm proofreader is not known; it is almost unthinkable, but, considering the persons concerned, within the realm of possibility, that Jonny and Aletta may have become acquainted by what in ancient times used to be known vulgarly as a pickup. What *was* discovered later was that both these near-criminals fell immediately into a relationship which in Aletta's confession she fatuously described as "being in love."

The recently released story from the archives gives the confession in detail. The following points are of interest: 1. Reluctantly the discredited contestant acknowledged that the first suggestion of her entering the Buticontest had come from Velanco. She herself, she shamelessly added, agreed enthusiastically and welcomed it as "a good joke and a chance to get even with the stuffy old officials," and she it was who had forged the birth certificate and the diploma. Jonny, as a plastics engineer, was able to provide the skintight film which she wore in contravention of the requirement of full nudity. 2. (in her own words) "I wouldn't tell you that much, except that Jonny is safely hidden where you can't find him and punish him, and you will never get me to tell you where he is." 3. Who sent the anonymous tape to the authorities which betrayed her, she professed not to know: "I didn't think I had an enemy on Venus. All I can guess is that it must have been some girl who wanted Jonny for herself. But how she or anybody could have found out, I can't imagine; nobody knew but us. We must have been overheard."

The committee must have heard all this with disquietude; they had enough on Velanco to accuse him as an accessory simply from his

having furnished the plastic film. But it was true that they had lost him.

And it was true that their detectives had not yet found any clue to the author of the anonymous letter. They were inclined to agree with Aletta that it was the work of a jealous woman, and that worried them more than anything else; it argued that the younger generation, on Venus as on Terra and perhaps throughout the Solar System, was more dangerously infacted with this "love" heresy than anybody had dreamed. They would much rather have believed that Aletta Braun and, to a lesser extent, Jonny Velanco were merely solitary freaks. (As all students of history know, they were correct; such cases of atavism may still occur, very occasionally, but there has never been any wave of youthful abnormality such as they feared.)

That is where matters rested at the end of the first report from the secret file. All that remained was to decide what to do with the disgraced delinquent. No sentence had ever been set for such an offense, since it had never entered anyone's head that so audacious a fraud would ever be perpetrated.

Their first move was to clamp down on any more publicity. In their first shock they had let the thing get almost out of hand. When the anonymous tape arrived, and then, immediately on its heels, Special Correspondent Kitsayo Okamura videocasted his scoop, they had been caught completely unprepared; all they did was to call Miss Venus in to explain. If they had hoped she would disprove the videoman's charges, they were sadly disappointed. Very soon she broke down —in fact, her first words were, "How did he find out?"

(How he found out was soon discovered. Descendant of a people who were pioneers in nudism, his sharp eye had detected an infinitesimal wrinkle in the plastic covering. He had communicated his suspicion to a colleague in the northern section of the American Region, who had relayed to him Aletta's abnormal career on Terra. A robot clerk he kept bribed with daily oiling had then informed him of the anonymous letter— and was disassembled for it at once.)

Hastily the authorities took steps to hush the thing up. The 2945 Buticontest, they announced, would be considered as never having occurred. The next contest would be held, not in 2950, but in 2946, with the same contestants—minus Aletta Braun. Henceforth, they added virtuously, every entrant would be subjected to intensive personal examination and investigation of her eligibility.

The next tape released from the archives includes the detec-

tive' report mentioned earlier. Aletta's parents had now been located, but they refused to take custody of her, and since she was of legal age they could not be compelled to do so. Naturally, she was no longer welcome as a resident of Venus, and would never again be able to find a job there. Terra wouldn't have her back, and all the other colonies, when approached, refused her as an emigrant. One member of the Buti-contest Committee was indiscreet enough to let remain on the tape his exasperated remark: "I wish to Space we still had those ancient scavengers known as Gungangsters, so we could hire one of them to bump her off quietly!"

But something had to be done with her. And the only remaining answer was the Deviate Department. Aletta Braun was ordered to report to them the following morning for a brainbath, to transform her (as should have been done in childhood) into a normal citizen.

If, even as long ago as 2945, they had had the equivalent of what used to be known as prisons, there would have been no further difficulties. But the officials underestimated the extent of Aleta's abnormality; it did not even occur to them that after their unanimous ruling she would not report for treatment the next morning.

The next morning Aletta Braun had vanished—as completely as had Jonny Velanco.

And now it is my privilege to announce that I myself, as an archeologist of some standing, have made and authenticated a discovery that will excite all historians, and that amply justifies the retelling of this perhaps trivial incident. To archeology and history no episodes of the past are trivial, for they all help to build up the detailed record of our civilization. To fill the smallest gap in this narrative is an important achievement.

For the past two years an expedition under my direction has been excavating in the ruins of Venus Northwest, destroyed in the Second Flood of 3102. In the site known technically as S-X 74, which before the flood was a reservation for Venerian indigenes, my robots dug up, among the primitive artifacts, a 30th century enduramic tape, still in good recording condition.

This was a sufficiently startling discovery, since the indigenes, though of course humanoid and even fairly advanced, had a completely non-mechanical culture, and those living on reservations (the last full-blood died, as every student know, some 500 years ago) were kept as living museum exhibits, with no access to civilized mechanisms.

It can be imagined with what curiosity I had the tape played off. And I could hardly contain myself when I found that it was—and

this is the revelation I am now making popularly known, after a confidential technical report to an executive session of the Interplanetary Association for the Advancement of Science—a complete solution of that long-ago mystery arising from the failed Buticontest of 2945.

For 90 years after they vanished, Jonny Velanco and Aletta Braun lived as Venerian natives in that reservation in Venus Northwest!

After Velanco died, Aletta—still the arrogant rebel she had been at 18—taped and hid this record, so that, as she said, "it would be discovered on some far-off day how well she and Jonny had fooled the authorities and managed to live their own free lives." The account will thus be of interest to criminologists and deviational psychologists as well as to archeologists and historians.

Jonny Velanco had been a plastic engineer. It is possible, as I have said, that he had a remote Venerian ancestor of his own; in any event, he had always been interested in the natives and was familiar with their appearance, customs, and language.

When Aletta had caught up his suggestion that she compete fraudulently in the Buticontest, he had warned her that there was always a possibility she might be betrayed. She flouted the idea, but since she was, as she said, "in love" with him she agreed, to please him, to take the precautions he urged on her.

He made for both of them a perfect plastic covering—how I wish either of these had survived the centuries; the man must have been a misdirected genius—which, with various postures, gestures, and speech which he taught her, transformed them into undetectable indigenes. Since there were always a few "tame" natives in the cities, they would be unobserved en route to the reservation. Frequently, Aletta said in her narrative, they had donned these disguises and spent what seemed to her delightful evenings together, completely unsuspected.

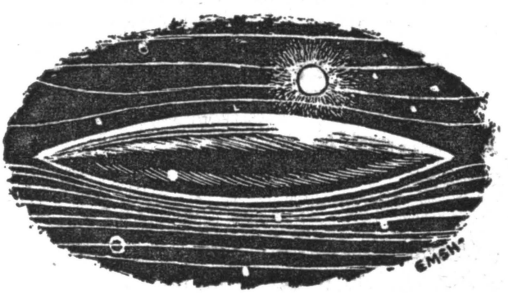
When Okamura made his videocast, they acted at once. Jonny wanted her to disappear with him, but Aletta could not resist the "fun" of a public showdown and a confession adorned with fake sobs. A soon as she was ordered to the Deviate Department, she went home, put on the disguise, and followed him to the Venus Northwest Reservation. They had visited it together, in disguise, several times previously, and had been accepted by the indigenes as fellow-aborigines. They had no difficulty in settling down there permanently—and no repugnance to living the uncivilized life of the native Venerian. In the privacy of their own hut, of course, they could always shed their masquer-

ade. They must never have dared, however, to have a child.

It may be wondered what would have happened to their "love affair" if Aletta had not been unmasked. As Buticontest Queen she would have moved in a very different sphere from his.

Jonny Velanco saw to that. He had planned from the beginning to make possible their strange future alone together. He confessed it to her on his deathbed, and it was the climax of Aletta's taped bequest to posterity.

He, who had put the idea in her mind in the first place, was also the author of the anonymous letter which brought about her exposure.



F&SF—The Sun Never Sets On

The Magazine of FANTASY AND SCIENCE FICTION is now being sent to seventy-two countries and territories of the world and to all seven continents.

From Afghanistan to Zanzibar and from Iceland to New Zealand, (including some countries behind the iron curtain) there are readers enjoying F&SF in English, in French or in Japanese.

This is most gratifying both to the editor and the publisher. More important, we believe its reflects a growing worldwide interest in stories and articles with imagination and vision.

Why (it has been asked) did the Babylonians—or maybe it was the Egyptians—say that pi=three when it obviously doesn't? Perhaps because (it has been suggested) it used *to equal three —and then the universe grew more complex. Ma Smight, at the moment when Things Began To Change, didn't ask much: only Justice. If her own notions of what this meant were peculiar to herself, Ma being a peculiar woman, well . . . But you had better read the story, written with the familiar Kris Neville zing and color, for yourself. And perhaps you will be politer to older ladies in supermarkets from now on, too.*

POWER IN THE BLOOD

by Kris Neville

WHEN THE DEW HAD SCARELY formed and the sun was no more than rosy promise in the East, Mink Smight, seated at the breakfast table, reasoned that it was going to be a beautiful day.

Mink said, "It's going to be a beauty."

Ma Smight pursed her lips, thinking. "It might, and then again it might not."

Joey recognized certain sure indications in Ma's tone. With his gun-metal eyes flashing, he pleaded over a plate or corn bread: "No more visions—"

Ma set her jaw and rolled her eyes to show how yellow her eyeballs were. "When I feel a vision coming on, I jest naturally have to go ahead and have it."

"Not now, when things have been going along so nice for a while," the youngest girl said, hoping to cry back the inevitable. "*Please.* Remember the time I had that cute little soldier over? And then—" this to Mink—"Ma had to go and have a totally unnecesary vision right in front of him. He never did come back. I was so embarrassed I like to died."

"You were only eleven," Ma said placidly.

"Suppose I was. Suppose I *was.* How was he to know?"

"Now, now," Mink said.

Ma drew herself up. "It hain't everybody can have visions; it hain't everybody God sees fit to talk to."

"It ain't God," Joey muttered.

"Now," Mink said. "Joey. Amelia. Levina. Let's talk about something else."

"Why don't Joey tell us what's on the news?" Levina asked.

There was a little silence.

The world was changing. Take Science. Mankind plugged along without much science—but no fewer brains—for a hundred thousand years until the universe shifted around in the process of simplifying itself, and it became easier to see how it was more or less put together. Old theories were discarded and new ones introduced with the jerky haste of a Chaplin tightening bolts on the production line. Atomic energy, high polymer chemistry, anti-gravity. Space and time merged into a single continuum. Matter and energy were all at once interchangeable. Waves and articles blended. On the subatomic level, things were changing so fast—in the process evolving a bewildering array of ever simpler components—that it was impossible to build machines perceptive enough, fast enough, to keep pace. Logic, inherited from a more leisurely time and developed to accommodate a world now gone, cracked asunder into shards of paradox.

Eventually, as happens to most people who are running away from society, Ma Smight and the family arrived in Southern California. There was no farther to go: short of exposing themselves to the sea change of expatriotism—unthinkable to the unthinking fundamentalist. They settled at the edge of the Pacific. Time went along without anyone doing much about it. Came a Friday morning—

Joey cocked his head and frowned in concentration. "The newscaster on KNX is reading a commercial. I can't find any other —Wait. Here's one from New York . . . He's talking about trouble in the Middle East. They've had anti-American riots in—"

Mink relaxed.

Ma said quietly: "Hit don't matter. I got a feeling in my bones; I jest got me a feelin' that today is the day—"

This time the silence was oppressive. Ma blinked her eyes into it: looked ahead and smiled in confusion. Mink and the children looked at each other.

Ma continued to look ahead. As was her custom, she drew shards and fragments from her two worlds together and assembled them to suit herself. She smiled secretly and pursed her lips again.

"It's about time for you to get to work, Mr. Smight."

Mink looked at Ma.

"Your lunch is on the table, Mr. Smight."

"Well, now, iffen today is, like you say—"

"Mr. Smight!" Ma said. "The Devil finds work for idle hands to do. Are you gonna do the Devil's work? Your lunch is on the table."

"Yes, Ma," Mink said. His name had been Huggins before he married into the Smight family.

The events of sunrise proceeded in the exact and logical order that man had come to expect from an exact and orderly universe. There was the gradual swelling of the sun from behind the horizon and its stately ascendency above the earth. The mists vanished. The world was light. The sun was warm, the breeze was cool, the sky was blue.

In accordance with the laws of probability, it grew later. The two girls went off somewhere on mysterious, girlish errands: perhaps to say goodby. After an uninspired protest, Joey left for school. Ma Smight straightened up the house, washed the breakfast dishes, went to the supermarket for food, and returned home.

Shortly before eleven, after making the preliminary arrangements for supper, she went to the parlor and rested. As was her custom—she was basically a lonely woman—she began talking to herself. "Now you take my three young uns, here," she said, working her mouth furiously and bobbing her head to the rhythm of her rocker. "Ain't one of 'em looks a bit like their daddy! That's the Smight blood a-workin' its way out!"

Ma sat with her back to the wall. The door was open to let the spring sunshine come in, and since there wasn't any screen door, she had to keep the flies out.

Ma smacked her lips happily. "That's good blood for you!" she cried emphatically.

Joey, who looked more like Ma Smight than either of the girls, came in the door and tossed his books, done up with an old leather belt, onto the sofa.

"There's a cat tearin' down the school house," he said, going through the parlor into the kitchen for a drink of water.

"Hump!" Ma said, showing her disapproval by rocking down fiercely. "It could of waited 'til school was out, if you ask me!" she sniffled and brushed at her hair, pushing it up from her forehead. "Now don't waste that water in there, letting it run that a-way!"

"I want to let it get cold!" Joey called.

"You hyeard your Ma!" she snapped. In her anger, she accidentally let a fly get in the door, but she made him go right back out again. Rocking back and forth creakily, she called, "An' where you goin' to go to school at now?"

Joey came back into the living room, wiping his lips on the back of his hand. "I don't reckon I'll have to go no more," he said.

Joey crossed the room, and a little stand table with a comic book and *The Reader's Digest* on it moved over out of his way. He sat down on the sofa.

"Nonsense," Ma said, bearing down heavily on her rocker. "Always be school. Always has been, always will be."

"Ma," Joey said uncertainly. "You been outside lately?"

"Always be school," she said. "They've got it rit up in the laws, boy." She rocked a moment in silence.

Then she said, waving her hand toward the corner, "An' I said to that Wilson woman, I said, shakin' my finger right in her face, I said, There'll come a day when the Lord will remember what you said."

"Were you talkin' to me, Ma?" Joey asked.

"No," Ma said, staring hard at the bright pattern on the carpet.

Outside the house, the sun shone brightly. The two Smight girls were just coming in for—as the noon meal was called—dinner.

Across town, at slightly after one o'clock, in the machine shop where he worked, Mink looked at his lathe, and thinking of Ma, he began to sing, "Work, For the Night is Coming." After the first chorus, he could not remember the words. He tried whistling a few bars of "Bringing In the Sheaves."

The sound was loud in the otherwise quiet factory. The other workers had all left shortly before lunch time. He stood on first one foot and then the other. He stopped whistling.

His machine had quieted down a little now, so he gave it a friendly pat. It still refused to run. Sighing deeply, he crossed the shop for his lunch box, punched his time card, and walked out of the building.

Outside, he saw the futility of waiting for a bus. He bowed his head and turned toward home.

Block after block passed outside of time.

Amelia saw her father coming down the street. She cried out when he came abreast of the front yard.

"Hello," he said. "How's my little girl?"

"Just fine, Poppa Mink," she said.

He stood at the bottom of the porch steps. He handed over his lunch box.

"The last time you were home early, remember, was when they had a Union meeting, and you didn't go."

"We were living in Parsons, then," Mink said.

"Yes! An' they were goin' to pay you, too!" Ma called through the doorway. "An' I told you not to take any money you didn't earn, remember *that!*" Ma stood on the porch, bristling. "Oh, I know you, Mr. Smight. I know you like a

book, Mr. Smight. What is it now? What is it this time? What are you home early for? What have you done, Mr. Smight? Answer me!"

Mink raised his eyebrows. He turned, puzzled, to Amelia. She shook her head, no more than an eighth of an inch, negatively, in either direction.

Mink turned back to Ma. "The machines quit running—" he said tentatively.

"Hump!" she said, narrowing her eyes. Her cheeks puffed in indignation. "If you'd had any of the Smight spunk, you'd of told them machines right then and there and gone on about your work."

"Things is changing, Ma," Mink said. "Like you prophesied they would."

"No matter what," she said, "it don't seem right, Mr. Smight. No matter what."

Mink shifted his weight and waited.

"It's not like today's a holiday!" Ma cried triumphantly.

Amelia said, "Maybe it's Thanksgiving. How'd that be, Ma? That'd make everything all right, wouldn't it?"

"We jest had Thanksgiving a few months ago."

"I meant again," Amelia said.

"I don't have time to do all that cookin'," Ma said. "I ain't ready for Thanksgiving again."

"Maybe Labor Day?" Amelia persisted. "You don't have to do no special cookin' Labor Day."

Ma bobbed her head. "I don't know . . ."

"It's a honest holiday," Amelia said. "An' the way things is lookin', it looks like it's pretty much up to us when it is, any more."

"Well, maybe you're right," Ma said. "Maybe that would make everything all right. You can come in the house, now Mr. Smight, seein' as today's Labor Day, I guess."

Mink came into the parlor. Ma crossed to her rocker. Mink sat down and took off his heavy shoes. "Ahhh," he said. "Sure feels good to get them off." They were Safety Shoes with steel reinforcement in the toes, and consequently quite heavy. "I sure am tired. I had to walk home. Over ten miles. Them busses ain't running."

Ma straightened out her dress and smacked her lips in satisfaction. Plainly she was building toward a climax deep within herself. For a moment everyone was quiet, and her rocker went squeak, squeak. "I don't reckon we'll have to travel no more," she said. "It'll be eighteen years come next corn plantin' time that we left Cold Camp. I reember it, because it was jest two years—two years to the very day—after Uncle Come-to-Jesus got taken by that sheriff from Kentucky. An' that was in '48."

She nodded and pulled hard at her nose. "We've been to—let's

see, now, how many States did we figure the other day, nineteen ur twenty?"

"Twenty-one," Joey said. "You remember, you'd forgotten to count Tennessee, because that's where we came from."

There was a shrill scream from somewhere outside.

Ma looked at the ceiling, and her mouth began to twist and turn. "That's that red-headed tart next door! You can jest bet on that!"

"Hadn't we ought to go see?" Mink said. "Wouldn't it be the neighborly thing to do?"

Ma thrust her chin forward savagely. "I hain't goin' to have you running into that hussy's house! This *very* day, this very morning . . ." She gasped for breath, her face fiery with indignation.

"Now, Ma," Amelia said.

"When I was comin' back from the store," Ma said, "do you know what she said about me, plain as day, talkin' to that Johnson woman, an' pretendin' not to see me? she said, right out loud, so I'd be sure to hyear, 'That Smight women is an old hag,' she says. *Hag* she calls me. An' I said to her, 'Mrs. Wilson the Lord'll punish you,' I said, 'for talkin' about a Christian woman like that.'" Ma's mouth began to jerk and one of her hands began to worry her apron.

"Please, Ma, Levina said. "Don't go get startled: Hit's all over. You promised you wouldn't get started off again, after just before Poppa Mink came home."

Ma said, "An' I told her, I know things, I told her. What I could tell you, I told her, would make your blood turn cold, hyear" Ma's rocker began to pop and squeak. "Yes, an' the Good Lord seen fit to show me! Ah! The cross he makes me bear!" Wringing her hands, she jumped out of the chair: "Oh, my God, when can I cross that glorious river? Oh, my God, my God, when? How long, how long must Your servant wait?'

Mink braced himself.

"An' I said to this hussy, I said, there's a day a-comin', an' it's not too far away . . ."

Ma's eyes blaced and her mouth puckered as if she were going to cry. Then she blinked her eyes rapidly. She opened and closed her mouth. She began to sing. "Let's all gather at the river—oh, let's all gather at the river—yes, let's all gather at the river,

"the bea-uuuuu-ti-ful

"rivvvvver

"of God."

Ma shook her head. "Hallelujah!" she cried. "Oh, Hallelujah! I seen! I seen!" She began marching up and down the room, her eyes flashing. "The day of reckoning has come! Praise God! Mine enemies are swept away as the rains, praise God! He has brought down the cities of

"Ninevah and Sodom and Gomorrah!

"(Praise Him!) Yes, yes, yes! Yea! He has struck down mine enemies—

"in their beds—in the midst of their sin—

"—and depravity. Yes, yes, yes!

"Oh, when . . . when . . . *when* will You take Your servant across that glorious river into Beulah Land?"

"Stop it! Now Ma, you stop that this minute!" Levina cried.

"You see it, God? Oh, You see how they treat me? My own family?

"My own flesh and bone?"

She stamped her foot heavily. "Lamb of God!" she cried.

"Ma!" Amelia interrupted. "I can't stand no more of hit! I jest can't stand no more of hit!"

Ma blinked her eyes and said quietly, "Why child . . ." She breathed deeply. "Folks hate me," she whimpered. "Even my own family." She started to sniffle. "I don't have to stay when I hain't wanted." She stopped in the middle of the floor. Her breathing began to return to normal.

"I guess I better to fix for supper," she said. "I guess you're all as hungry as a pack o' wolves." Turning around, she started off, wiping her eyes on the edge of her apron. She walked into the kitchen, making puzzled little noises deep in her throat.

After she was gone, Levina said, "But she—she don't even *know*." Her voice was almost a whisper. "She's been raving at God on and off, like now, but she don't really know. We came in. She wouldn't even talk about it. Talks about going to Church come Sunday, Joey going back to school, you keep on working—us gonna get married now that we can settle down and not have to move."

Mink tried to reassure them. "She's sort of . . . withdrawn . . . But she can still handle it; don't you worry."

They felt Levina's fear. Joey went quickly to her. "Don't," he said. "Do you want to be like them? We're Smights. Just remember that. Nothing can hurt Smights."

—the thing Mink remembered on the long walk home. He felt the need to talk and to explain not only Ma—but himself as well—to the children.

"When I first met your Ma," he said, "She used to be a great one for readin'. Catalogues, newspapers. Even a whole book, once. More'n most folks. But bein' Smight on top o' that . . . People all thought she was a little queer. An' the harder she tried to explain things to 'em, the queerer they thought she was, an' then when we left Cold Camp, an' the rest of the Smights, she really didn't have nobody left to talk to at all. Then, when the first baby came—it was birthed early, an' it looked like it mighta been a boy

more'n anything else—Smights is odd ones for havin' all kinds of things for babies—well, after that, she sorta took to religion an' readin' the Good Book, an' maybe a couple of hymns."

"Don't matter no more," Joey said.

"Remember that time Ma told us about that there twister due to wreck McAlester the next week?" Amelia said. "Wasn't anybody believed her then, either."

"I oughta go help with the supper," Levina said nervously.

The rest of them sat in the parlor listening to the kitchen sounds. Mink felt he had, once again, failed them.

At length Ma summoned them to the table.

It was a subdued meal. Ma said nothing, but her whole body continued to twitch and jerk.

When supper was over, they sat in the parlor again. After a while, Joey got up and said, "I think maybe I'll go out and watch the fire."

A bit after that, Mink said, "I guess I'll go out for a breath of air."

Outside there was a warm spring wind blowing in from the ocean, and as experience would have led one to anticipate, it was carrying the smell of seaweed and fishes. Joey was standing in the shadow alongside the house, and Mink walked over to him.

"What's up there on the roof?" Joey asked.

Mink looked up. He did not recognize it. "I don't know."

"Oh."

Mink said, "Let's go over and see what happened to the woman next door."

Joey was watching over to the left, where the cat was at work. It was tearing down all the houses on that side of the street. "Okay, Mink."

The stars were starting out, and the moon was like a thin slice of lemon rind in the sky; it would have been dark and gloomy if it were not for the fires. The gravel scrunched underneath their feet. The cat was resting. Mostly it was quiet, except for a sound or two from the town.

They stepped up onto the porch.

At the door Mink stopped. "Reckon we ought to knock or jest go right in?"

"I suspect we may's well go on in."

Mink opened the door. It was as dark as the Pit inside.

Mink struck a match and found the light switch. The lights failed to work. The match went out after fluttering briefly.

Joey, who did not need any light to see, was already looking around the room.

The curtains were torn off, and the curtain rods were bent: an all-at-once bend—which is always the case with bent curtain rods, where the bent part crinkles in

because the tube is hollow; the upholstery was pulled out of the sofa, and the overstuffed chair popped springs all twisted. The table was splintered, as if someone had pounded it with a club. The rug was halfway ripped up. On the floor the television set, a jumble of coils and wires and smashed tubes, peered up malevolently with its milk white eye.

Mink lit another match.

"She's in the kitchen," Joey said.

They threaded their way across the living room and through a little hall that opened out into the kitchen.

There lay Mrs. Wilson.

She had dropped a suit case. The suit case had sprung open, spilling lace things and little bottles and strapped things over the floor. There was a large black handbag ripped open beside the suitcase.

Mink had to drop the match. He lit another.

Mrs. Wilson was staring up at him. Her eyes were round and wide and fixed. Her mouth was its usual red, only now, against her blanched face, it was a ragged, bloody slit, and the teeth behind the drawnback lips were dry. The flaming hair spilled out all around her head, and her neck was twisted to one side.

There was a large red welt across her forehead where some object had struck her a fierce blow.

Mink dropped the match, almost burning his fingers. The light lasted for quite a while after the match had burned out, and the light vanished.

The chair across the room had been waiting for the darkness to come again. It made dull little scrapings on the linoleum as it closed in slowly and murderously on its next intended victims.

Joey turned around and stared hard at it. It knew it had met a Smight. It slunk off.

Mink lit another match. His hand shook.

The two of them without speaking made their way through the wreckage of the front room and out into the yard again. Snow was falling gently.

Joey cocked his head to one side. "Ain't no more radio or TV broadcasts," he said. "Anywhere."

All over the city there were many little fires burning brightly. And the cat, lashing its tail back and forth and growling angrily, was crossing the street to start on the other side. It made a wavery shadow that fell at their feet.

They stood.

Joey said sadly, "Maybe Ma ought never to have told them—Maybe if she hadn't, they'd not made fun of her all the time . . . and . . . and . . . maybe, Mink—she'd be all right now. Like she used to be, back before about Kansas, I guess. She wasn't so bad, yet."

Mink hardly listened. They stood on the slight rise looking out over the ocean. He thought: here we stand, the Smights. Able to, to handle universe, if need be: like a little key in a lock, a part of it all—

Mink felt a deep pain of lostness and longing. His thoughts darted in the prison of necessary indifference: beyond emotion.

Tonight, now that it was over, Ma would cry: in the deep, lost, lonesome way she sometimes had of crying. She would surface from the confusion that was her inward life and look about and think a bit and cry tonelessly and forelornly before ignoring and denying and finally forgetting. But for a little while the extent of the disaster would penetrate and she would see that the world of her vision again had interpenetrated the world of her life. She would know that things were no longer changing: they had changed.

Ma would cry. She would not understand why he could no longer go away to work; why the supermarket no longer had fresh vegetables; why the water and electricity were shut off; why the buses did not run. She would miss all those people. So would he; so would Joey and the girls.

And Ma—she would teach the sofa to talk and ask it endlessly, where is all the people? and tell it endlessly of the slights and injustices she had suffered and about the nature of good and evil.

Mink looked at Joey. He wet his lips.

Joey turned away, talking half to himself: "Something had to start it, Mink. Things don't go mad by themselves: either people or worlds. Something caused it. Maybe it was a Smight did it, hundreds of years ago, changing some little thing a little; and it's been building up ever since. Something had to. I'm going to let her see what it's like and let her get good and lonely. Then when space and time get a little nearer together, I'll try to walk us all back to Kansas or before. If I can. I don't know she can stop it; but after she's seen what it's like, maybe she'll try . . . maybe she'll try like she never tried anything before."

Mink shivered with hope. He glanced nervously toward the West. He forced his voice to be calm and disinterested. "Think there's any chance of the ocean catching fire tonight?"

"No," Joey said with equal calmness. "It's too hot."

That things are not always what they might be—or even what they seem to be—is, alas, too very true. From a pair of fried eggs served over a lunch-room counter all the way to the music of the spheres (if not beyond), via 75¢ panatelas and winged centaurs, Charles Foster takes us on a curious journey with the Boss, the Desert Princess, the Watusi Chief: and presents to us the apple-tree, the singing, and the gold.

THE TROUBLED MAKERS

by Charles Foster

ACCUSING. TWO ORANGE EYES set in dead white, staring up at him, accusing. And a rising curl of gray smoke past his eyes.

There was a tinkle of shells and a waft of air. Gray smoke eddied toward his face, rose up his nostrils. His nose twitched.

He sneezed. "Scope," he said.

His eyes blinked four times, rapidly.

He wiped his nose on the sleeve of his shirt and looked down at the counter that was tilting up toward him or away from him—which was it? And now he knew what the orange eyes were. Eggs. Sunnyside up. Hash-brown potatoes on the side. And coffee now, please, miss.

"Yes, sir," she said, "right away, sir."

Had he said it out loud? And had he said it just now—or was he remembering having said it when he walked into this place, out of the awful rain? But she had already turned away, toward the terrace of six silexes in back of the counter.

She had short legs. Like goat legs? No. They were straight and rounded—not crooked or bony. But her trunk long in proportion. Erect she stood and walked. Rhythmic. Backstrap of her bra through the translucent nylon dimpled waitress dress going this way and that way as her shoulders went this way and that way.

Not slender, she wasn't. Young. Already too soft-rounded to be slender. And later on not slender at all. With love and children and food she'd spread. But with love. Black hair and skin in desert colors. Hints of ocher and sand and

brown in the flesh. Desert Princess.

And brown eyes. Liquid brown. Not orange. Not accusing orange eyes idiot-set in frizzled mires of dead white with airholes.

He sneezed again.

He looked down. His right hand was resting on the edge of the counter, the counter that kept sloping this way and that way. Loving counter, nubile, waiting counter.

He saw the long thin cigar in his hand. That was the smoke. It had a soft gray ash three-quarters of an inch long and the smoke curled whitely toward his face. The firm brown wrapper of the slender cigar was faintly green in places.

"Seventy-five cents," he said.

"Did you say something to me, sir?" The girl turned back to him.

"Seventy-five cents, Desert Princess," he said. "Somewhere for this Havana Panatela . . . Havana Panatela . . . I paid seventy-five cents."

"Of course," Desert Princess said. "You got it here."

She was close to him, just above him across the yawing, shifting counter. Hips, waist, breasts, shoulders, liquid warm brown eyes and the clean smell of herself. How could anybody smell so much like herself?

"You bought it here, sir," she said with a smile hinting at the full flesh of her lips. "You said it might protect you from the rain. You bought it and then you lit it and you went out."

"I did? Nonchalant, into the red rain, smoking a seventy-five cent Havana Panatela. Devil a care . . . never a backward glance . . . leaving you flat? How could I do it, Desert Princess?"

"Oh, I didn't worry, sir. Your friend worried but I didn't worry. I knew you'd be back. At least, I was pretty sure you'd be back. And now you are back, aren't you?"

"Am I?" he said. "Yes, I suppose I am. And with a seventy-five cent Havana Panatela. But we'll soon fix that."

He grasped the panatela like a spear between the thumb and first two fingers of his right hand. So poised, he waited for the yaw and pitch of the counter to settle a little. And then he plunged it down, swiftly hard and true, down right into the center of the first of the two orange accusing eyes.

Liquid yolk spurted.

There was another musical tinkle of shells. He looked up and back along the deep, narrow lunchroom. The writhing counter ended four stools farther down—and there was an archway, ornate with plaster angels and lilies growing at its curving edges. Had he made it? He supposed so. And down from the arch hung a curtain made of shells. Shells that tinkled as, blown by air, they sounded one against another.

And now the shells had parted. And two brown hands were on the edges of the arch.

The Watusi Chief.

Six feet four inches tall he was. Maybe taller when he straightened up? But now he stooped under the arch.

"You shouldn't oughta done that Boss," Watusi Chief said.

"Why not?" the man called Boss asked.

"Nobody oughta waste food, Boss. It ain't right, with people hungry."

"You call *this* food? And you call *them* out there people? I'll show you what's food and what's people!"

Boss lifted the dripping end of the Havana Panatela out of the egg yolk, leaving a mound of ash, gray slowly wetting to black. "I'll show you!"

And he plunged the end of the Havana Panatela deep into the center of the second orange eye. Again, liquid yolk spurted. It splashed on the heaving counter, the nylon of Desert Princess, the dirty, red-spattered khaki of the Boss's shirt.

"I'll show you what's food, you black bastard! I'll show you what's people! I'll show you what's what!"

Calmly, Watusi Chief took two big steps along the billowing counter. His long, evenly muscled right arm snaked down and under Boss's arms and around his belly. He lifted and hauled Boss up into the air, up over the counter. Desperately, Boss reached down to retrieve his Havana Panatela from the middle of the second orange eye. But his fingers only brushed it, knocking it off the edge of the plate onto the pulsing counter.

The counter surged and Havana Panatela flipped up on the crest of the surge and then off the counter and down, down between two stools.

Boss screamed in mid-air. "Something to suck. Gotta have something to suck. Something to mouth!" Boss screamed and screamed again.

"Maybe you better give him some mints," Desert Princess said.

"Could be," Watusi Chief said. "Gimme a box of 'em, please."

Desert Princess walked along the counter to the cash register, up at the front of the long narrow room.

Watusi Chief hoisted Boss up to his shoulder and let him hang there. "You try to calm down, Boss," he said. "You suck some mints and calm down, okay? Because we've got to find us a job before we run into the Town Marshal again—you remember, the bastard who stopped us out on the highway this morning?"

But Boss wasn't listening. Because down there in front of him was Desert Princess, one hand on the cash register, smiling up at him.

"Honey," he wailed to her, over the vast distances between them, the tremendous distances between everybody, "desert honey. Desert honey in the cool light and shadow

of the oasis where the wild bees murmur. I must go now, I must leave thee, O desert princess of my honeycomb, dripping with desert ardor. I am borne on cruel wings of duty—but the memory of your sweet honey will stay ever on my tongue. Loved I not honor more, I'd curry and hurry the spice of your honey'd favor, and here I'd make my stand, to love or die for honey . . ."

"How much do we owe ya?" Watusi Chief asked.

"One eighty-seven," Desert Princess said. "Including the Havana Panatela and the sales tax."

Watusi Chief pulled two bills and a coin out of his pants pocket. "Here you are, miss. And you keep the change for your trouble."

"Oh, it wasn't hardly what you'd call trouble at all," Desert Princess said, smiling. "Why, gee, I kind of like him. The nice things he said, even if he did splash egg on my dress. I really do."

Boss began chanting in a high falsetto. "Mints, mints, mints—mints pie in the mints sky when I mints mints mints die. Hot slices and slabs of mints sky girl princess of mink and princess of mints, succulent mints and singing minks. And when the mint sky was opened they all rained down—the shining furs of mints, the running laughter of the minks. And all the kings began to sing, O what a princess dish to set before the minsky pie . . ."

"Here's your mints, Boss. You can simmer down, now."

Boss saw the pink palm of Watusi Chief's brown left hand coming up toward his mouth. Two round white mints in the palm. Boss craned down, mouth open, tongue out. He lapped up and sucked up the two mints. And then he twisted his neck up and around till he could see the ceiling.

"Well, miss, I guess we'll be running along now," Watusi Chief said. "Could you tell me how we get to the state employment office from here?"

"Why, surely," Desert Princess said. "You just cross Main at the next crossing—the one with the light. That's Second. Walk two blocks down and turn left on Elm. Employment office's in the middle of the block. You can't miss it."

Desert Princess looked up at Boss, on Watusi Chief's shoulder. And then, beyond him, she saw what was happening on the ceiling. Or in the ceiling. She gasped.

There was a dwarf apple tree. Not exactly painted on—or in—the ceiling. It was in bas-relief, half in and half out, as if the ceiling were wet cement and a real apple tree had been picked up by a giant hand and pushed on its side halfway into the cement. Except instead of cement, or ceiling, there was a yellow sky behind—or above—the tree.

Desert Princess felt sure—if she could only reach up that high—she

could pick one of the apples and bite into it and it would be a real apple. A tremendously real apple. Suddenly, she wanted one of the apples very much.

And she wanted the blossoms, the gigantic white-and-gold apple blossoms that nestled in sets of three around each of the big round red ripe apples. Whoever heard of apple blossoms and ripe apples growing together? And never on any tree, either apples or blossoms like these.

But instead of reaching up she just stared, mouth open. Because on the gnarled and crooked lowest limb of the dwarf apple tree a girl was suddenly sitting.

Bare feet and bare legs dangled down from the low limb, almost touching the ground. But the girl's body was wrapped in a short cape. Desert Princess had never in her life seen a cape anything like that cape but she was immediately sure that she had to have one just like it. For when she stared at it, all she could think of was a fan coral with delicate tracery veins of blood, taken from the turquoise deeps of a warm and liquid tropic sea, carried up and up to the surface of the world of air, and there transformed to texture sheer and smooth as incredible silk, silk passed by gentle hands through an adhering cloud of butterfly wings.

"At it again," Watusi Chief groaned. "Jesus Christ, Boss, don't you *ever* relax?"

But Desert Princess hardly heard Watusi Chief. Because now she saw the face of the girl. And it was her face. Duplicated exactly in every detail, right down to the almost imperceptible forceps mark on her left cheek bone. But somehow, through the perfection of the likeness, there glowed a beauty, both ethereal and sexy, that Desert Princess had never herself discerned when she looked into her mirror.

"Gee," Desert Princess said, "am I *really* like that?"

"Boss says so, why then it's *so*," Watusi Chief said. "But he's sure takin' a long time saying it."

"Was I really like that—before? Or—did he, just now—did he just now *make* me that way?"

Watusi Chief sighed, resigned. "The Boss only brings out what's really there all the time, miss. He knows it's there because he can see it. And then he makes you see it too—with words, or colors, or sounds—or little scenes like this . . ."

"Goddamnit," Boss said, "I wanna nother mint. Gotta have something to *suck!*"

As Watusi Chief handed another mint up to Boss, Desert Princess saw a new figure appearing on the ceiling. Was it what they called a 'centaur'? It had four legs—but they sure weren't horse legs. They looked more like the legs of a goat. And instead of hide—horsehide or goathide—the body was covered

with the finest of white feathers. Pure white, except around the brisket. There they were tipped with scarlet. And above the brisket a man's body—covered with a swirling cape of feathers. A cape cut along the same lines as the cape of Desert-Princess-in-the-apple-tree.

The head above the cape was the head of Boss—except that the single twisted spear of a unicorn horn grew out of the middle of the forehead, just below the wind-tangled hair.

Two massively muscled arms held a shiny clarinet to the lips. And goat-legged, horned, feathered and caped, Boss galloped across the ceiling toward Desert Princess on the apple tree, his head thrown far back, blowing joy into the clarinet. The sound he made filled the lunchroom.

That sound—it seemed to well up from the floor, to travel up from the toes along the quivers of nets of nerves of legs and body, to be heard by all the body, bone and flesh and glands and nerves, before it even reached the drums of the ears. Because who could ever *hear* such sounds without feeling them first?

"Hey, that's something new you got on that clarinet, ain't it, Boss" Watusi Chief said. "What is it, chrome?"

"Purest silver," Boss said. "Silver pillaged by marauding barbarian hordes of the sun as they struck down in rapine the long-forgotten mountain fastness of an ancient race, an ancient people."

"Christmas sakes!" Desert Princess breathed, "a pure silver clarinet!"

"Nah," Boss said. "I was exaggerating. Kind of a pure silver alloy. I sort of threw in a little tungsten and platinum and antimony to, well, to give it body and feel and weight and touch and resonance and timbre. Stuff like that. Gimme another mint." Boss seemed calmer now, absorbed in his work.

Desert Princess herself handed up two more mints to Boss and his lips brushed across her fingers as he took them. She looked up and saw that now her cape was opening, opening wider as Boss the centaur approached closer and closer.

But it was not really a cape at all. It was a pair of wings! They fluttered up and down, opened wide and up and out over her shoulders and back, then down, closing in and around her bare shoulders. Up and down, with a movement like the flutter of a cape and the beat of wings at the same time—keeping the beat and the time of the sound from the silver and platinum and tungsten and antimony clarinet, swooping up and down.

Under her wings, Desert Princess' arms were folded over her naked breasts. In her hands she held a short bow and an arrow, both blood red. The feathers of the

arrow with their scarlet tips might have been plucked from the centaur's chest.

With the centaur galloping closer across the ceiling, Desert Princess unfolded her arms. She fitted a blood red arrow to the gold string of the blood red bow. She pulled back till the bow bent and strained in a tense arc. Bowstring taut as a song, nipples of her bare breasts taut as the bowstring, taut as the red skin of the apples, taut apples bursting with ripeness.

She released the string and the arrow sang higher than the clarinet.

But in the midflight instant, they sang together—the arrow and the clarinet. Their songs blended into one new sound. And then both stopped. Stopped in shattering silence.

"Judas Priest! What have I done now!" Desert Princess screamed. She covered her eyes and leaned forward, bending over the cash register. "Oh, I can't bear it. I can't bear to look."

"Go ahead and look," Watusi Chief said. "You didn't do no harm. Boss is having too good a time right now to let anything tragic happen."

Desert Princess peered up, between her fingers. Watusi Chief was right. Now the silver and tungsten and antimony and platinum clarinet was clenched in Boss's right hand. And the blood red arrow he caught, caught in midflight and at the midpoint of its shaft, between his teeth.

Boss trotted forward, lifting his goat legs high, prancing triumphantly. The golden point of the blood red arrow glinted at the sun while his eyes, under the single unicorn horn, glinted at Desert Princess . . .

"Sque-e-e-e-ak—BANG!" said the screen door.

"What the hell is going on here?" said the fat man who came in through the door.

"Why nothin' at all, Uncle," Desert Princess said. "Fellers, this is my uncle, the Town Marshal."

"We've met," Watusi Chief said.

"Whay d'ya mean—nothin' at all? If it's nothin' at all, then what's that tree doin' growin' outa my ceiling?"

"Your ceiling?" Watusi Chief said. "Looks to me like it's mostly Boss's ceiling now."

"Fifty-one percent of the stock in this here lunchroom's mine," the Town Marshal said. "I guess that makes it my ceiling, don't it?" Well, don't it?"

"But forty-nine percent is *mine*," Desert Princess said, "so I guess I got *some* say in what . . ." Desert Princess broke off, her voice choked with disappointment. She was staring at the ceiling.

The Town Marshal looked up. The ceiling, one hundred percent of it, was just as it had always been. The plaster wore the dead gray, powdery gray coat of dirt and cal-

cimine it had always worn. The three big brown stains and the five small brown stains were back, where they had always been. Over the stove and grill, behind the counter, the same layer of smoke and slimy grease spread out in its half-circle, just as it had for years and years.

"Now look what you've gone and done!" Desert Princess screamed. "Just *look* what you've done!"

"Now *you* look, girl," the Town Marshal said. "You look and you listen to me. I'm a lot more to you than just the fifty-one percent controlling co-owner of this here lunchroom. I'm your uncle, girl, and don't you forget it. And I raised you up from the time you was a three-year-old orphan. And even besides all that—me bein' the law here—it's up to me to keep a little order . . ."

"Order!" she said scornfully, "what do you know about order?" She gazed wistfully for a moment at Boss, still hanging over the shoulder of Watusi Chief. When she spoke again her voice was softer. "Nobody ever made me like that before. Why, for a minute there, I knew the way I really was. The way I really am . . ."

"Trouble!" the Town Marshal broke in. "Trouble. From the moment I laid eyes on you two out on the highway this morning, I could smell trouble." The anger was rising in the Town Marshal's voice, the red flush working itself up into his face. "Didn't I tell you two to keep moving? Didn't I? Didn't I tell you two to keep agoin' right through my town, and not to stop for nothin'?"

Boss said, "Scope." Then he said, "You got seventy-five cents left, Watusi Chief?"

"Scope? What's he mean by scope?" the Town Marshal demanded.

"With the exception of seven cents, Boss," Watusi Chief said, "we're broke."

"I'll bet I know what he wants," Desert Princess said, "Another Havana Panatela."

"I guess so," Watusi Chief said. "When things get bad, mints just ain't enough."

"I asked you what you meant by *scope,*" the Town Marshal shouted, "and by God I want an answer!"

"Before you start talkin' that way, uncle, maybe you ought to kind of remember that I'm a Sunday school teacher," Desert Princess said. "What would my class think, do you think, if they heard my own uncle a talkin' like that?"

"Maybe so," the Town Marshal said, breathing hard, "and maybe *you* ought to remember it too—that you're a Sunday school teacher—when you're having all these dirty pictures made on your ceiling. My ceiling." He paused and looked up at Boss. "But I still ain't found out what you mean by . . ."

"There's no call at all to look at him with them mean, accusing eyes of yours . . ."

"I wasn't doing anything of the sort," the Town Marshal said, "I was just trying to find out . . ."

"And what's more," Desert Princess said, "I'm going to *give* him a Havana Panatela, even if it is fifty-one percent yours. After what he showed me about myself, why it's little enough to do."

The Town Marshal stared at her in silence for a moment. When he spoke his voice was lower, placating. "Honey," he said, "you don't know what you're saying. I raised you up and I loved you and took care of you all these years. I slaved and sacrificed for you so you'd have all the advantages. I even took this here thankless Town Marshal's job, to make the money so's you could have a nice little business of your own and a place where you could meet nice young fellers. And now, after all that, you stand up there, defying me, mocking me like a jaybird. And for what? For a good for nothing, no good at all *stranger*. A *maker*. That you never even laid eyes on before . . ."

He paused for breath. Desert Princess was staring down at her feet and there was a blush of guilt on her face.

"I guess," she said, "I guess what you say—well—I guess you're right." Her voice was small, subdued.

"You *guess* I'm right?" the Town Marshal said, louder now and with more of his old confidence. "You *know* I'm right. What I said to you, why, it's just plain common-sense facts. And there's no disputin' facts, is there, honey?"

"No," she said, her voice even smaller and quieter, "I guess not."

"Boss is gonna get kinda disturbed if he don't get a Havana Panatela pretty soon," Watusi Chief said.

"Oh, he *is*, is he?" the Town Marshal said. "Well, goddam. That just about does it. First thing, you two come into my town, without even a by-your-leave. Then, you try to turn the head of my own niece, the little girl I raised up from a baby—as good a girl as you could ask for—teaches in the Sunday school every Sunday. Next, you grow trees in the ceiling of my lunchroom. And now—to top it all off—you go 'round demandin' Havana Panatelas. Okay. Now I'll tell you what I'm goin' to do. I'm gonna run you both in. Let's go!"

"You mind telling me what the charge is?" Watusi Chief asked.

"Charge? I'll give you plenty of charges. Vagrancy . . ."

"They still got seven cents!" Desert Princess said. "It ain't as if they were broke!"

". . . And vagrancy's only the beginning," the Town Marshal went on. "Apple trees in the ceiling without a permit. Pornography. Disturbance of the peace—why, what do you think the other folks

in this town would think? Supposing they was to come into this respectable lunchroom and see a apple tree growing out of the ceiling?"

"But, Uncle!" Desert Princess said, "these boys ain't bums. They're willing to work. Why, just before you came in here and made such a ruckus, they was on their way to the state employment office. And I'll bet they was goin' there to get jobs!"

"Boss ain't gonna be in a good mood *at* all if he don't get a Havana Panatela pretty quick," Watusi Chief said.

"He sure *ain't* gonna be in a good mood, where I'm taking him," the Town Marshal said, "and neither are you. Lessen you like bars, chilled steel bars. And you're gonna stay right there behind 'em, too —till the judge gets back from deer hunting."

"Bars ain't so bad," Watusi Chief said, "not when Boss gets through with 'em."

"Oh—maybe you think my bars won't hold you, huh? Chilled steel . . ."

"Oh yeah, they'll *hold* all right. Boss he got a lot of respect for reality, including bars. I don't think he's about to bust out through 'em. But he'll kind of decorate 'em—so you'll be able to see what they *really* look like—what they *feel* like. And then maybe you won't be able to stand the sight of 'em yourself . . ."

"Oh, bars, bars, *bars!*" Desert Princess said. "Why can't you men ever talk sense? Chilled steel! I never heard so much nonsense in all my life. Bars or no bars, Uncle, you just can't lock these men up when they're honestly looking for work. You just can't! It ain't fair!"

"I can't, huh? What makes you think I can't?" The Town Marshal's face was livid now and he was shouting. "I'll show you what I can do and what I can't do."

"You can't lock 'em up," Desert Princess said, calmly, quietly, positively, "not if you expect to get any peace at home for the next month or two of Sundays."

The Town Marshal stared at her. "After all I've done, after all I've said, you're still taking up for these strangers . . ."

"Fair's fair!" Desert Princess said, "and it was you taught me to be fair!"

"Okay. *Okay.* I'll tell you what I'll do. I'll escort these two around to the state employment office myself. Right now. If they get themselves jobs, I'm all done with them. But if they don't, I'm locking 'em both up!"

"Unless he gets a Havana Panatela, Boss is gonna feel . . ."

"Boss can damn well *earn* his Havana Panatela," the Town Marshal broke in, "provided he gets a job. And if you ask me, that's a pretty big provided."

The skinny man with the straw-colored hair toyed nervously with

the painted wedge on his desk that said INTERVIEWER. His worried eyes shifted from the two men seated beside his desk to the fat Town Marshal standing behind them.

It was pretty obvious the Town Marshal didn't want these two to get jobs—but the Interviewer was determined not to let that sway him. It was up to him to match men to jobs, come hell or high water. That was *his* job and he took pride in doing it well. Of course, it was a small town and a man had to live with his neighbors. And he did owe the Marshal a few favors. And the Marshal did have one of the prettiest girls in town for a niece . . .

But naturally, he wasn't going to be influenced by any of these considerations. If there had been a job for these two—the maker and his assistant—he wouldn't hesitate a minute. But of course, in a town like this, there just weren't any jobs for makers.

"I sure wish I *did* have something in your line," he said, his voice trembling a little with sincerity, "but the honest truth of the matter is that we haven't had a call for a maker in all the three years I've been holding down this desk."

"Scope," Boss said. His moist eyes blinked as he stared at the plain, blank, ivory-colored wall at the back of the state employment office. His voice was indistinct because of the five mints he was sucking.

"What in hell do you mean by *scope?*" roared the Town Marshal.

"Don't let it excite you, Marshal," the Interviewer said hastily. "Makers often say things that seem—uh—a little obscure to folks." He turned to the two seated men. "Isn't there—uh—something else you could do? Short order cooking? Accounting?"

"He's tried 'em," Watusi Chief said, "but his mind sort of wanders. And then he'll put bacon fat into the coffee or coffee into the frying pan. Or he'll use the wrong set of books to make out the income tax forms. Things like that. And I've got to work with him to kind of watch out for him."

"Scope," Boss said. He was still staring at the back wall and it was beginning to shimmer a little now and didn't look quite so ivory as it had a moment before.

"I'll *scope* you when I get you locked up, the Town Marshal said. And it's time we were going right now. You heard what the man said, didn't you? He ain't got a thing for you!"

And then the Interviewer's phone rang.

He smiled and talked into the phone and listened and when he put it down he looked like a man who's just squared a circle or filled an inside straight.

"That was your niece," he said to the Town Marshal. "Says she needs a maker and maker's assistant. Right away."

"What the hell do you mean!" the Town Marshal said. "Without my say-so she can't hire any . . ."

"O Desert Princess," said the Boss, "O wild heart of desert honey. Golden goddess of Havana Panatelas . . ."

"Shut up, you! I'm the controlling co-owner of that lunch-room."

"It isn't for the lunchroom," the Interviewer said. "It's for the Sunday school. Remember, way back last fall, when the Sunday School Board voted fifty dollars for an Audio Visual Training Aid? Well, she's scouted around and never found anything decent for that price. But she thought, maybe, now with a maker right here in town and all . . ."

"Fifty bucks," Watusi Chief said, "will buy one hell of a mess of Havana Panatelas. We'll take it."

"What do you mean—*we'll* take it?" the Town Marshal demanded. "Who the hell asked you?"

"I got his power of attorney," said Watusi Chief. "Want I should show it to you?"

"Nah. Nah. Never mind. But I'll tell you one thing. You'd better deliver the goods, because every one of those charges is still hanging over both your heads. I'm giving you till Sunday to get this Audio Visual thing done and done right!"

"But that's only a third the usual time for a job like this," Watusi Chief said. "Think you can handle it, Boss?"

"Scope," Boss said.

"Where's the man responsible for this?" the Mayor asked as he strode up to Watusi Chief and the Town Marshal. It was Sunday morning. The mayor had just finished his dedication speech for the new Audio Visual Aid.

"That's him, out there." Watusi Chief pointed out through the Sunday school window.

For a moment, the Mayor continued to stare in wonder at the enormous Audio Visual Aid which filled the air of the Sunday school, hanging over the class that Desert Princess was now teaching. Then the Mayor looked out the window. The Boss was stretched out on the grass, flat on his back, eyes closed, a box of Havana Panatelas for a pillow. One of the cigars was lit and between his teeth. He was blowing pink smoke rings. Sometimes he would blow a green figure eight. Once in awhile a dancing girl, all colors.

"Looks kinda beat, don't he?" the Town Marshal said.

"It takes it out of a man, making as big an Audio Visual Aid as that with such close deadline," Watusi Chief said. "And when a maker gets through working, he's put so much of himself into what he's done that there just ain't very much left over."

"Well, he's certainly made something that'll boost this town," the Mayor said. "Tourist business alone

that it'll bring in—just that alone oughta pay off the bonded debt in two-three years. This sure was a damn fine idea of yours, Marshal."

"Hell, Mr. Mayor, it was mainly just using a little persuasion at the right moment," the Town Marshal said.

The man on the grass stirred. In a lazy circle, one hand swung up and took the cigar from his mouth. Gently, with the other hand, he thumbed his nose at the Marshal and the Mayor. He winked at Watusi Chief. Then he turned his face back up to the sky. He smiled wearily, happily. "Scope," he said.

Sunday school was over but the Smallest Girl was still there, staring in wonder—the stars in her eyes as bright as the millions and tens of millions of stars that shone out of the Audio Visual Aid, above and all around her.

At random, she picked out one, a medium-sized yellow star with nine tiny dots revolving around it. Pointing to it, she turned toward Desert Princess.

"Do you really think there are people like us on this one?"

"Sure," Desert Princess said with a smile. "Audio Visual Aids can't exist without people, any more than you can rightly say that people can exist without Audio Visual Aids. Leastways, that's what the Boss said. And seein' how he's the maker, I guess he knows."

"Do you think they're as good as us? Or better? Or worse?"

"From what Boss says, I'm afraid they're just about as bad. He told me he figured they'd have just as much trouble with money and cheating and bombs and plain ignorance and fancy cussedness as us."

"But why couldn't he make 'em *better,* while he was at it?"

"Well—they're supposed to be a kind of model for us and of us. And if they're too much better, then they ain't no model at all, is they? And besides, Boss says he can only make 'em as good as his own vision is good. And I guess it sounds kind of funny, but he says his vision was none too good when he made this one, on account of he didn't have no Havana Panatelas to keep him calm.

"But why didn't he, if that was all he needed?" the Smallest Girl asked.

"Folks was a little stiff-necked, I guess, child. And you know what? Boss says he figures something like that was what happened when *we* was made. Any time, he says, that a maker gets a real big job, why, it just doesn't seem as if things are set up so he'll be in a peaceful mood. Or he'll have a close deadline to meet. All kinds of things."

"Gee, you talked to him a whole *lot,*" the Smallest Girl said. "Are you going to get yourself married up to him?"

"No, course not. It's been wonderful knowing him—and someday when you're big you'll know *how* wonderful. But makers just ain't very good husband material. I'll always remember him, though. I always will. Because it was him showed me who I really am. And that's the most important thing can happen to anybody ever. Even after I'm married to the Interviewer—and it isn't going to be long now before he asks me, but don't you dare tell him—I won't ever forget how the Boss showed me who I really was."

But the Smallest Girl was no longer really listening. She had turned back to the Audio Visual Aid. Across the whole ceiling of the Sunday school it stretched. In the center a great, slowly revolving pinwheel of stars, throwing off little sparks of stars. And stretching out in every direction were the smaller pinwheels and clusters.

It was funny, the Smallest Girl thought. If you looked straight at the walls of the Sunday school, there they were, looking solid and real.

But if you focused your eyes on the Audio Visual Aid, it wasn't like that at all. Your eyes started at the great star cloud in the center, your eyes caught by its foams and whirpools and running rivulets of stars, all in motion, millions of stars. And as you looked there was a sound, a sound that your *eyes* seemed to hear, a new sound, a music that you knew had always been there but was always new.

Your eyes followed the sound out from the center, out to the other stars, whole islands of stars. Into the distance and distance so far that the islands themselves, each with millions of stars, were nothing but faint and winking points of light, no brighter than single stars. And finally even these points of light winked out completely. You couldn't see them any more at all.

And then suddenly you remembered that you hadn't seen the Sunday school at all. No walls and no roof. You just didn't see them at all, unless you made a funny kind of effort and really *tried* to see them.

The Smallest Girl looked back once more to the medium-sized yellow star with its nine tiny circling dots. She went closer to it. It grew bigger the closer she approached. And each of the circling dots was a world. And the sun and its worlds kept growing bigger. Or was she getting smaller, smaller the closer she approached the growing sun, the growing worlds. Bigger or smaller . . . closer and closer? And closer still and then it was she knew that she had made this star and its worlds her own, of her adoption, always hers.

"Do you think this one has people?" she asked without taking her eyes from the growing star. "Does

it have a maker like Boss? Do you suppose it really does?"

But there was no answer from the world that was already almost another world. And the Smallest Girl did not hesitate but took another step and another, out of that world away from the Desert Princess and her Interviewer and the others, and none of them saw through her eyes her new world grow bigger, filling space as she grew smaller . . .

Till finally came the soft, final closing of a door. The darkness. The blaze of light.

And the Smallest Girl was in the world of her choice. And before her was a maker . . .

Accusing. Two green eyes set in unhealthy magenta, staring up at him. And a slosh of gin, a bare finger of gin in the bottle before his eyes.

He drank the gin in one gulp. Then he turned the empty bottle upside down, letting the last drop drip on the counter.

"Scope," he said.

"Did you speak to me sir?" the waitress behind the wavering counter asked.

"Scope!" he said again, savagely. He looked up at her. "If I had scope enough, if I could only do once, just once, what I'm trying to do, I could build whole universes. Endless islands of universes!"

In sudden anger he jabbed the neck of the bottle he held into one of the accusing green eyes on the plate before him and then into the other. Green ichor spurted across his shirt, over the counter, onto the skirt of the waitress.

"Scope!" he cried, and the shells at his back tinkled with a faint music. The tall sunburnt white man was coming toward him. Trader Horn.

He turned back to the waitress and regarded her. A gazelle of the far veldt she was, and in her eyes the moon of the eastern sea. "Enough scope," he said, "O Moon of the Eastern Sea, and I'd make a dozen island universes for you, just for you, for you—and string them in a bracelet for your wrist . . ."

"Come on, Chief, let's go," Trader Horn said, his big sunblistered hand on Chief's shoulder, "we gotta make the employment office before it closes, if we're gonna get a gig for tomorrow."

The Smallest Girl felt the sad tears coming and she let them come and she cried for a long time after the two men had left—but the stars in her eyes, the stars of wonder, the stars of her passage, they stayed bright through the tears.

Our predecessor once received a postal card addressed to "The Kindly Dialect-Loving Editor"—a frenetic missive whose basic (and, for that matter, incidental) meaning escaped not only the sweet soul to whom it was addressed, but us, too. Inasmuch as it was vis-a-vis *Dr. Asimov the Good that Editor Mills became famed as Kindly, it seems in place that Boston's (or, at least, West Newton's) own Great Egghead should—in an article about eggs and cells and such—lapse into dialect (Caledonian variety). That he lapse into agreement with Boston's own Autocrat, Dr. O. W. Holmes, Sr., on the lowness of puns as a form of humor, seems unlikely.*

THE EGG AND WEE

by Isaac Asimov

EVERY ONCE IN A WHILE, YOU WILL COME ACROSS SOME REMARKS pointing up how much more compact the human brain is than is any electronic computer.

It is true that the human brain is a marvel of compactness in comparison to man-made thinking machines, but it is my feeling that this is not because of any fundamental difference in the nature of the mechanism of brain action as compared with that of computer action. Rather, I have the feeling that the difference is a matter of the size of the components involved.

The human cerebral cortex, it is estimated, is made up of 10,000,000,000 nerve cells. In comparison, the first modern electronic computer, ENIAC, had about 20,000 switching devices. I don't know how many the latest computers have but I am quite certain they do not begin to approach a content of ten billion.

The marvel, then, is not so much the brain as the cell. Not only is the cell considerably smaller than any man-made unit incorporated into a machine, but it is far more flexible than any man-made unit. In addition to acting as an electronic switch or amplifier (or whatever it does in the brain) it is a complete chemical factory.

Furthermore, it need not aggregate in fearfully large mumbers in order to make up an organism. To be sure, the average man may contain 50,000,000,000,000 (fifty trillion) cells and the largest whale as many as 100,000,000,000,000 (a hundred quadrillion) cells but these are exceptional. The smallest shrew contains only 7,000,000,000 cells, and small invertebrate creatures contain even less. The smallest invertebrates are made up of only one hundred cells or so and yet fulfill all the functions of a living organism.

As a matter of fact (and I'm sure you're ahead of me here), there are living organisms that possess all the basic abilities of life and are nevertheless composed of but a single cell.

If we are going to concern ourselves with compactness, then, let's consider the cell and ask ourselves the questions: How compact can a living structure be? How small can an object be and still have the capacity for life?

To begin with: How large is a cell?

There is no one answer to that, for there are cells and cells and some are larger than others. Almost all are microscopic, but some are so large as to be clearly, and even unavoidably, visible to the unaided eye. Just to push it to an extreme, it is possible for a cell to be larger than your head.

The giants of the cellular world are the various egg cells produced by animals. The human egg cell (or "ovum"), for instance, is the largest cell produced by the human body (either sex) and it is just visible to the naked eye. It is about the size of a pinhead.

In order to make the size quantitative and compare the human ovum in reasonable fashion, with other cells both larger and smaller, let's pick out a convenient measuring unit. The inch or even the millimeter (which is approximately 1/25.4 of an inch) is too large a unit for any cell except certain egg cells. Instead, therefore, I'll use the "micron."

This is a thousandth of a millimeter or 1/25,400 of an inch. For volume, we will use a "cubic micron," which is the volume of a cube one micron long on each side. This is a very tiny unit of volume, as you will understand when I tell you that a cubic inch (which is something that is easy to visualize) contains over 16,000,000,000,000 (sixteen trillion) cubic micra.

There are a third as many cubic micra in a cubic inch, then, as there are cells in a human body. That alone should tell us we have a unit of the right magnitude to handle cellular volumes.

Back to the egg cells then. The human ovum is a little sphere approximately 140 micra in diameter and therefore 70 micra in radius. Cubing 70 and multiplying the result by 4.18 (as always, I will spare you both the rationale and the details of arithmetic manipulation) we find that the human ovum has a volume of a little over 1,400,000 cubic micra.

But the human ovum is by no means large for an egg cell. Creatures that lay eggs, birds in particular, do much better; and bird-eggs, however large, are (to begin with, at least) single cells.

The largest egg ever laid by any bird is that of the extinct Aepyornis of Madagascar. This was also called the "elephant-bird" and may have given rise to the myth—so it is said—of the "roc" of the Arabian Nights. The roc was supposed to be so large that it could fly off with an elephant in one set of talons and a rhinoceros in the the other. Its egg was the size of a house.

The actuality was not quite that lyrically vast. The Aepyornis could not fly off with any animal, however small, for it could not fly at all. And its egg was considerably less than house-size. Nevertheless, the egg was 9½ inches wide and 13 inches long and had a volume of two gallons, which is tremendous enough if you want to restrict yourself to the dullness of reality.

This is not only the largest egg ever laid by any bird, but it may be the largest ever laid by any creature, including the huge reptiles of the Mesozoic, for the Aepyornis egg approaches the maximum size that any egg, with a shell of calcium carbonate and without any internal struts or braces, can be expected to reach. If the Aepyornis egg is accepted as the largest egg, then it is also the largest cell of which there is any record.

To descend to the here and now, the largest egg (and, therefore, cell) produced by any living creature is that of the ostrich. This is about 6 to 7 inches in length and 4 to 6 inches in diameter and, if you are interested, it takes 40 minutes to hard-boil an ostrich egg. In comparison,

a large hen's egg is about 1¾ inches wide and 2½ inches long. The smallest egg laid by a bird is that of a species of hummingbird which produces an egg that is half an inch long.

Now let's put these figures, very roughly, into terms of volume:

Egg	*Volume (in cubic micra)*
Aepyornis	7,500,000,000,000,000
Ostrich	1,100,000,000,000,000
Hen	50,000,000,000,000
Humming-bird	400,000,000,000
Human being	1,400,000

As you see, the range in egg-size is tremendous. Even the smallest bird-egg is about 300,000 times as voluminous as the human ovum, whereas the largest bird egg is nearly 20,000 times as large as the smallest. In other words, the Aepyornis egg compares to the humming-bird egg as the largest whale compares to a medium-sized dog; while the humming-bird egg, in turn, compares to the human ovum as the largest whale compares to a large rat.

And yet, even though the egg consists of but one cell, it is not the kind of cell we can consider typical. For one thing, scarcely any of it is alive. The egg shell certainly isn't alive and the white of the egg serves only as a water store. The yolk of the egg makes up the true cell and even that is almost entirely food supply.

If we really want to consider the size of cells, let's tackle those that contain a food supply only large enough to last them from day to day; cells that are largely protoplasm, in other words. These non-yolk cells range from the limits of visibility downward, just as egg cells range from the limits of visibility upward.

In fact, there is some overlapping. For instance, the ameba, a simple free-living organism consisting of a single cell, has a diameter of about 200 microns and a volume of 4,200,000 cubic micra. It is three times as voluminous as the human ovum.

The cells that make up multicellular organisms are considerably smaller, however. The various cells of the human body have volumes varying from 200 to 15,000 cubic micra. A typical liver cell, for instance, would have a volume of 1,750 cubic micra.

If we get into cell-like bodies that are not quite complete cells, then we can reach smaller volumes. For instance, the human red blood cell, which is incomplete in that it lacks a cell nucleus, is considerably smaller than the ordinary cells of the human body. It has a volume of only 90 cubic micra.

Then, just as the female ovum is the largest cell produced by human beings, the male spermatozoon is the smallest. The spermatozoon is mainly nucleus, and only half the nucleus at that. It has a volume of about 17 cubic micra.

This may make it seem to you that the cells making up a multicellular organism are simply too small to be individual and independent fragments of life, and that in order to be free-living a cell must be unusually large. After all, an ameba is 2,400 times as large as a liver cell, so perhaps in going from ameba to liver cell, we have passed the limit of compactness that can be associated with independent life.

This is not so, however. Human cells cannot, to be sure, serve as individual organisms but that is only because they are too specialized and *not* because they are too small. There are cells that serve as independent organisms that are far smaller than the ameba and even smaller than the human spermatozoon. These are the bacteria.

Even the largest bacterium has a volume of no more than 7 cubic micra, while the smallest have volumes down to 0.02 cubic micra. All this can be summarized as follows:

Non-yolk cell	*Volume (in cubic micra)*
Ameba	4,200,000
Human liver cell	1,750
Human red blood cell	90
Human spermatozoon	17
Largest bacterium	7
Smallest bacterium	0.02

Again we have quite a range. A large one-celled organism such as the ameba is to a small one-celled organism such as a midget bacterium, as the largest full-grown whale is to a half-grown specimen of the smallest variety of shrew. For that matter, the difference between the largest and smallest bacterium is that between a large elephant and a small boy.

Now, then, how on earth can the complexity of life be crammed into a tiny bacterium one two-hundred-millionth the size of a simple ameba.

Again we are faced with a problem in compactness and we must pause to consider units. When we thought of a brain in terms of pounds, it was a small bit of tissue. When we thought of it in terms of cells, however, it became a tremendously complex assemblage of small units. In the same way, in considering cells, let's stop thinking in terms of cubic micra and start considering atoms and molecules.

A cubic micron of protoplasm contains about 40,000,000,000 molecules. Allowing for this, we can recast the last table in molecular terms:

Cell	*Number of molecules*
Ameba	170,000,000,000,000,000
Human liver cell	70,000,000,000,000
Human red blood cell	3,600,000,000,000
Human spermatozoon	680,000,000,000
Largest bacterium	280,000,000,000
Smallest bacterium	800,000,000

It would be tempting, at this point, to say that the molecule is the unit of the cell, as the cell is the unit of a multicellular organism. If we say that, we can go on to maintain that the ameba is seventeen million times as complicated, molecularly-speaking, as the human brain is, cellularly speaking. In that case, the compactness of the ameba as a container for life becomes less surprising.

There is a catch, though. Almost all the molecules in protoplasm are water; simple little H_2O combinations. These are essential to life, goodness knows, but they serve largely as background. They are not *the* characteristic molecules of life. If we can point to any molecules as characteristic of life, they are the complex nitrogen-phosphorus macromolecules: the proteins, the nucleic acids and the phospholipids. These, together, make up only about 1/10,000 of the molecules in living tissue.

(Now I feel certain if I don't stop to explain something, I will be getting letters. I am *not* saying that these macromolecules make up only 1/10,000 of the *weight* of living tissue; only of the numbers of molecules. The macromolecules are individually much heavier than the water molecules. An average protein molecule, for instance, is some two thousand times as heavy as a water molecule. If a system consisted of two thousand water molecules and one average protein molecule, the *number* of protein molecules would only be 1/2,001 of the total, but the *weight* of protein would be ½ the total.)

Let's revise the table again, then:

Cell	*Nitrogen-phosphorus macro-molecules*
Ameba	17,000,000,000,000
Human liver cell	7,000,000,000
Human red blood cell	360,000,000
Human spermatozoon	68,000,000
Largest bacterium	28,000,000
Smallest bacterium	80,000

Now we can say that the average human body cell is indeed as complex, molecularly-speaking, as the human brain, cellularly-speaking. Bacteria, however, are markedly simpler, while the ameba is markedly more complex.

Still, even the simplest bacterium grows and divides with great alacrity and there is nothing simple, from the chemical standpoint, about growing and dividing. That simplest bacterium, just visible under a good optical microscope, is a busy, self-contained and complex chemical laboratory.

But then, most of the 80,000 macromolecules in the smallest bacterium (say 50,000 at a guess) are enzymes each of which can catalyze a particular chemical reaction. If there are two thousand different chemical reactions constantly proceeding within a cell, each of which is necessary to growth and multiplication (this is another guess) then there are, on the average, 25 enzymes for each reaction.

A human factory in which two thousand different machine operations are being conducted, with 25 men on each machine, would rightly be considered a most complex structure. Even the smallest bacterium is that complex.

We can approach this from another angle, too. About the turn of the century, biochemists began to realize that in addition to the obvious atomic components of living tissue (such as carbon, hydrogen, oxygen, nitrogen, sulfur, phosphorus and so on) certain metals were required by the body in very small quantities.

As an example, consider the two most recent additions to the list of trace metals, molybdenum and cobalt. The entire human body contains perhaps 18 milligrams of molybdenum and 12 milligrams of cobalt (roughly one two-thousandth of an ounce of each). Nevertheless, this quantity, while small, is absolutely essential. The body cannot exist without it.

To make this even more remarkable, the various trace minerals, including molybdenum and cobalt, seem to be essential to every cell. Divide up a two-thousandth of an ounce of these materials among the fifty trillion cells of the human body and what a miserably small trace of a trace is supplied each. *Surely,* the cells can do without.

But that is only if we persist in thinking in terms of ordinary weight units instead of in atoms. In the average cell, there are, very roughly speaking, some 40 molybdenum and cobalt atoms for every billion molecules. Let's, therefore, make still another table:

Cell	*Number of molybdenum and cobalt atoms*
Ameba	6,800,000,000
Human liver cell	2,800,000
Human red blood cell	144,000
Human spermatazoon	27,200
Largest bacterium	11,200
Smallest bacterium	32

(Mind you, the cells listed are not necessarily "average." I am quite certain that the liver cell contains more than an average share of these atoms and the red blood cell less than an average share; just as earlier, the spermatozoon undoubtedly contained more than an average share of macromolecules. However, I firmly refuse to quibble.)

As you see, the trace minerals are not so trace after all. An ameba possesses them by the billions of atoms and a human body cell by the millions. Even the larger bacteria possess them by the thousands.

The smallest bacteria, however, have only a couple of dozen of them, and this fits in well with my earlier conclusion that the tiniest bacterium may have, on the average, 25 enzymes for each reaction. Cobalt and molybdenum (and the other trace metals) are essential because they are key bits of important enzymes. Allowing one atom per enzyme molecule, there are only a couple of dozen such molecules, all told, in the smallest bacterium.

But here we can sense we are approaching a lower limit. The number of different enzymes is not likely to be distributed with perfect evenness. There will be more than a couple of dozen in some cases and less than a couple of dozen in others. Only one or two of the rarest of certain key enzymes may be present. If a cell had a volume of less than 0.02 cubic micra, the chances would be increasingly good that some key en-

zymes would find themselves jostled out altogether and, with that, growth and multiplication would cease.

Therefore, it is reasonable to suppose that the smallest bacteria visible under a good optical microscope are actually the smallest bits of matter into which all the characteristic processes of life can be squeezed. Such bacteria represent, by this way of thinking, the limits of compactness as far as life is concerned.

But what about organisms still smaller than the smallest bacteria that, lacking some essential enzyme or enzymes, do not, under ordinary conditions, grow and multiply. Granted they are not independently alive, can they yet be considered as fully non-living?

Before answering, consider that such tiny organisms (which we can call "sub-cells") retain the potentiality of growth and multiplication. The potentiality can be made an actuality once the missing enzyme or enzymes are supplied, and these can only be supplied by a complete and living cell. A sub-cell, therefore, is an organism that possesses the ability to invade a cell and there, within the cell, to grow and multiply, utilizing the cell's enzymatic equipment to flesh out its own shortcomings.

In a previous article (THAT'S LIFE, F & SF, March, 1962) I advanced reasons for considering such sub-cells to be living organisms. Accepting that, we can span new ranges of compactness beyond that of even the smallest bacteria.

The largest of the sub-cells are the "rickettsiae," named for an American pathologist, Howard Taylor Ricketts who, in 1909, discovered that such microorganisms were the causative agents of Rocky Mountain spotted fever and typhus fever. He died the next year of typhus fever, catching it in the course of his researches. He was 39 at the time of his death and his reward for giving his life for the good of man is, as you might expect, oblivion.

The smaller rickettsiae fade off into the viruses (there is no sharp dividing line) and the smaller viruses lap over, in size, the genes that are found in the nuclei of cells and that, in their virus-like structure, carry genetic information.

Now in considering the sub-cells, let's abandon the cubic micron as a measure of volume, because if we don't we will run into tiny decimals. Instead, let's use the "cubic millimicron." The millimicron is 1/1000 of a micron. A cubic millimicron is, therefore, 1/1000 times 1/1000 times 1/1000, or one-billionth of a cubic micron.

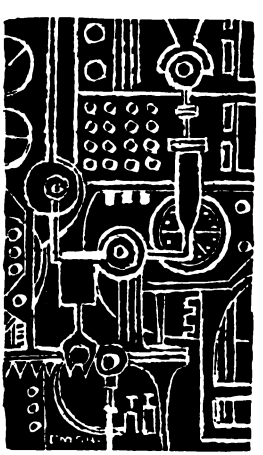
In other words, the smallest bacterium, with a volume of 0.02 cubic

micra can also be said to have a volume of 20,000,000 cubic millimicra. Now we can prepare a table of sub-cell volumes:

Sub-cell	*Volume (in cubic millimicra)*
Typhus fever rickettsia	54,000,000
Cowpox virus	5,600,000
Influenza virus	800,000
Bacteriophage	520,000
Tobacco mosaic virus	50,000
Gene	40,000
Yellow-fever virus	5,600
Hoof-and-mouth virus	700

The range of sub-cells is huge. The largest rickettsia is nearly three times the size of the smallest bacterium. (It is not size alone that makes an organism a sub-cell; it is the absence of at least one essential enzyme.) The smallest sub-cell, on the other hand, is only 1/3500 as large as the smallest bacterium. The largest sub-cell is to the smallest one as the largest whale is to the average dog.

As one slides down the scale of sub-cells, the number of molecules decreases. Naturally, the nitrogen-phosphorus macromolecules don't disappear entirely for life, however distantly potential, is impossible (in the form we know) without them. The very smallest sub-cells consist of nothing more than a very few of these macromolecules; only the bare essential of life, so to speak, stripped of all superfluity.



The number of atoms, however, is still sizeable. A cubic millimicron will hold several hundred atoms if they were packed with the greatest possible compactness, but of course, in living tissue, they are not.

Thus, the tobacco mosaic virus has a molecular weight of 40,000,000 and the atoms in living tissue have an atomic weight that averages about 8. (All but the hydrogen atom have atomic weights that are well above 8, but the numerous hydrogen atoms, each with an atomic weight of 1, pulls the average far down.)

This means there are roughly 5,000,000 atoms in a tobacco mosaic virus particle,

or just about 100 atoms per cubic millimicron. We can therefore prepare a new version of the previous table:

Sub-cell	*Number of atoms*
Typhus fever rickettsia	5,400,000,000
Cowpox virus	560,000,000
Influenza virus	80,000,000
Bacteriophage	52,000,000
Tobacco mosaic virus	5,000,000
Gene	4,000,000
Yellow-fever virus	560,000
Hoof-and-mouth virus	70,000

It would seem, then, that the barest essentials of life can be packed into as few as 70,000 atoms. Below that level, we find ordinary protein molecules, definitely non-living. Some protein molecules (definitely non-living) actually run to more than 70,000 atoms, but the average such molecule contains 5,000 to 10,000 atoms.

Let's consider 70,000 atoms, then, as the "minimum life unit." Since an average human cell contains macromolecules possessing a total number of atoms at least half a billion times as large as the minimum-life-unit, and since the cerebral cortex of man contains ten billion such cells, it is not at all surprising that our brain is what it is.

In fact, the great and awesome wonder is that mankind, less than ten thousand years after inventing civilization, has managed to put together a mere few thousand excessively-simple devices and build computers that do as well as they do.

Imagine what would happen if we could make up units containing half a billion working parts, and then use ten billion of those units to design a computer. Why, we would have something that would make the human brain look like a wet firecracker.

Present company excepted, of course!

BOOKS

LOST CITIES AND VANISHED CIVILIZATIONS, *Robert Silverberg, Chilton Books, $3.95*
THE OCTOBER COUNTRY, *Ray Bradbury, Ballantine, 50¢*
THE FALLING TORCH, *Algis Budrys, Pyramid, 40¢*
PLANET OF THE DAMNED, *Harry Harrison, Bantam, 40¢*
THE STAINLESS STEEL RAT, *Harry Harrison, Pyramid 40¢*
SHADOWS WITH EYES, *Fritz Leiber, Ballantine, 35¢*

WHEN THIS DEPARTMENT WAS A boy, living in the upper end of Manhattan Island, we used to do two things: hang around the news stands and read the display copies of *Amazing Stories* (those were the Hugo Gernsback days), and go on archaeological digs in the Indian caves in Isham Park. During the Revolutionary War deserters from the Hessian mercenaries hid in those caves, and there was always hope of finding a musket bullet or an arrowhead.

Archaeology and science fiction go together as naturally as ham and eggs, perhaps because archaeology is science fiction come to life. After all, isn't it a case of science turning the great fictions of history into fact? Certainly they have equal appeal to the romantic imagination. In LOST CITIES AND VANISHED CIVILIZATIONS, Robert Silverberg makes such an appeal.

He discusses Pompeii, Troy, Knossos, Babylon, Chichen Itza of the Mayas, and Angkor, lost in the jungles of Cambodia. Mr. Silverberg is more journalist than scholar, and his accounts are summaries of the archaeological work of the past hundred years. They are simply written, and, despite the fact that Mr. Silverberg is unfortunate when he attempts to recreate the drama and dialogue of the past, admirably suited to youngsters who would like an interesting introduction to the field. So if you have a boy who's hanging around the news stands, this is the book for him.

For years we've been attempting to analyse Ray Bradbury's magnificent style, and we're forced to admit that his work is like an exquisite Swiss watch; you can take it apart but you never can put it together again. THE OCTO-

BER COUNTRY is a collection of nineteen of the earlier masterpieces, varying in mood from the whimsical "Uncle Einar," who sulks because his wife has cajoled him into a flight over the farm to dry a line of laundry in the air . . . Uncle Einar has wings, you see . . . to the psychotic "Jack-In-The-Box," the story of a son imprisoned in a mansion with a widowed mother who teaches him that this is the only world, all the world, the one world for him.

The book is a must. We're grateful to Ballantine for reprinting these classics, and only regret that there isn't a trade edition, too. Mr. Bradbury certainly deserves hard covers, and his admirers will need them. THE OCTOBER COUNTRY will be read to tatters before the year is out.

THE FALLING TORCH, by Algis Budrys, is a most interesting novel based, we believe, on a novella of Mr. Budrys' which appeared many years ago. At least we had the distinct recollection of having read the central chapters as a story with a different ending earlier. Around this, Mr. Budrys has patched enough material to make up a novel.

The story itself is in no way unusual. Earth has been invaded. After twenty years in exile, the aging president and cabinet of earth are finally able to mount a revolution. Michael Wireman, son of the president, is instrumental in getting the revolution under way, and eventually bringing it to a successful conclusion. There's nothing impressive about this.

But what makes THE FALLING TORCH extremely interesting is the fact that in the added material and revisions you can watch the development of Mr. Budrys' uncanny power as a characterizer. We remarked on this in our review of his magnificent ROGUE MOON which, we said, came very close to our ideal of the perfect science fiction novel. In THE FALLING TORCH you can see the author's growth. He focuses more on character conflict than physical action, which is the sign of the true artist. One of F. Scott Fitzgerald's credos was: Action Is Character, and too few writers understand this.

But Mr. Budrys does. He is already among the first of the science fiction authors. We believe that if his development continues, as surely it must, he will rapidly outstrip all others.

Mr. Harry Harrison, author of DEATHWORLD, which we thought a splendid example of action-packed space-opera at its best, has come out with two novels in rapid succession: PLANET OF THE DAMNED and THE STAINLESS STEEL RAT. Both are in the Harrison style, hard-driving, well-planned, executed with craftsmanship; but it's a curious thing,

both read like SON OF DEATHWORLD.

DEATHWORLD, you may recall, was a planet so hostile in environment that it bred a strange and powerful race of colonists who fought savagely to tame their world. They were aided by a professional gambler and underworld adventurer. Well, PLANET OF THE DAMNED is about Brion Brandd from the planet Anvhar whose hostile environment has bred a strange and powerful race of colonists. Brion is the Olympic World Champion of Everything, so to speak, who is co-opted by the Cultural Relationships Foundation (a sort of Galactic F.B.I.) to solve the problem of the planet Dis, a harsh, inhospitable world populated by a race of amoral killers.

And THE STAINLESS STEEL RAT is about Slippery Jim diGriz, interstellar con man and crook who is captured and co-opted by the Special Corps (a sort of Galactic F.B.I.) which recruits its agents exclusively from underworld crooks whose environment has developed their powers in strange and individualistic ways. DiGriz is sent to crack the problem of the planet Cittanuvo, which is secretly building an Empire battleship of the Warlord class, strictly against the rules. DiGriz tangles with sweet, lovely Angelina, cleverest con woman in the universe, and doesn't catch up with her until the last chapter.

None of this is to be taken as a criticism of Mr. Harrison. The similarity of patterns merely means that he is rapidly developing a characteristic style which, when combined with his energy and expertise, will most certainly lead to an outstanding science fiction novel in the near future.

SHADOWS WITH EYES by Fritz Leiber is a collection of six long stories by that warlock of the outre, dating from as far back as 1941 ("The Power Of The Puppets") to as recent as the current year ("The Man Who Made Friends With Electricity" and "A Bit Of The Dark World"). We had the misfortune to dislike Mr. Leiber's novel, THE SILVER EGGHEADS, a few months ago, so it gives us great pleasure to endorse this collection and heartily recommend it.

But we've been doing some intensive thinking about Mr. Leiber's work, wondering how it is that some of his stories can inspire us with delight, while others leave us cold and unmoved. All authors are entitled to failures, but when a *rapport* is established between author and admirer, there should be understanding and communication even through those failures. We think we've discovered the answer.

Mr. Leiber seems to function most powerfully in the first-person story form. When events are relat-

ed by a protagonist, when characters are seen through his eyes, and when the conflicts are revealed by his reactions, then Mr. Leiber is at his best. But when he works from the omniscient or third-person point of view, he is handicapped. There isn't any opportunity in this form for the marvelous nuances, references, allusions . . . the network of stream-of-consciousness that is the quintessence of his unique style.

Proof of this is the fact that the two best Leiber stories of the past, classics today, are first-person stories: "The Night He Cried" and "Coming Attraction." And five of the six stories in SHADOWS WITH EYES are also in the first-person form. Mr. Leiber and his many fans will probably disagree with this analysis; but isn't that a function of the critic, to provoke controversy?

—Alfred Bester

Through Time And Space With Ferdinand Feghoot: LI

The Society for the Aesthetic Rearrangement of History would ordinarily never have thought of sending Ferdinand Feghoot on a mission to maintain the historical status quo. However, one such occasion arose when James Watt, whose destiny it had been to perfect (if not invent) the steam engine, seemed sure to succeed in the competitive examinations for a clerk's post at the Royal Observatory.

"You must go back and stop him!" shouted Dr. Corydon Bramahpootra, the Society's President. "This lovely Gibbonian period of history is Classically perfect. We must keep it intact!"

In Watt's time, the Observatory's main concern was to provide mariners with accurate astronomical data, and a knowledge of navigation was of prime importance. Feghoot cleverly engineered his own election to the Examining Board, and as one of the questions he put in the following problem: "You are at the Straits of Gibraltar, bound for Ragusa. What course would you set and how long would you hold it?"

Then he provided Watt with a specially distorted chart, and awaited results. As he had planned, when Watt's paper was being corrected, it turned out that the course he had given would have taken him to the Equator at about longitude 32°.

At once, Ferdinand Feghoot rejected him as a candidate, and on the paper he wrote his reason for so doing: "Watt's course for Ragusa's a course for Uganda."

—GRENDEL BRIARTON (*with thanks to John K. H. Brunner*)

See Feghoot advertisement in "Marketplace," page 128.

"The wind," it is well-known, "bloweth where it listeth." Long ago we learned how to trim our sails, and so thought we had tamed it. Hurricanes, cyclones, monsoons, typhoons, khamseens, and just plain storms from time to time have instructed us otherwise—but it is easy to forget. In a story from the United Kingdom, Frederick Bland develops a detailed picture of what happened one month when the winds taught man once and for all who was master.

THE FIFTEENTH WIND OF MARCH

by Frederick Bland

IT BEGAN FOR JOHN DRAKE when his carpets blew away. They had no value. They were bits and pieces he had picked up in sales, some of them with frayed edges where he had omitted to bind them.

There was nothing he could do to stop them blowing away. He had neglected to put weights on top of them and that was that. In any case he was too busy trying to stop himself being blown into the river after them; for the wind had suddenly risen while he was ashore emptying rubbish into the dustbins, which were in the yard behind the offices.

He felt a popping sensation inside his ears as he was carrying his red plastic waste bin back across the open space between the office and the dry dock, where they painted the undersides of the craft that came into the yard for repair. Then came the first gust of wind and from the corner of his eye he saw a red movement across to his left in the direction of his boat. That was the first piece of carpet being blown into the river. In all there were six of them that fitted the floor of his saloon like parts of a jig-saw puzzle.

It took a moment for him to send a message from his brain to his legs to tell them to run to save the other pieces of the puzzle before they were blown overboard. The second gust of wind came before

the end of that moment and suddenly John was too busy to stop anything. This was the real wind —not the warming up exercise that the first had been. It whipped the empty waste bin from underneath his arm. It took the other five pieces of carpet from the deck of his boat. It almost took John.

He had to let the wind blow him backwards. He had to let the wind blow him slightly to the left. Backwards and left meant a fall of ten feet to the bottom of the dry dock and at low tide there was no water there to break his fall—just thick oak beams crossing a concrete base. He was unable to look around and could not remember whether there was a boat under repair in the dock. His mind made a quick debate whether he would be better off with his back broken on an oak beam at the bottom of the dock or his lungs pierced by some projection on the deck of a boat. That, is, it made this debate in some spare fraction of an instant when it was not occupied in wondering whether the ropes mooring his boat would hold.

In the end he was able to devote his whole mind to wondering about the mooring ropes, because the wind crucified him against one of the stout wooden piles alongside the dry dock. He had been holding his head down to protect his face from the wind, but it was jerked up with a crack against the pile and he had to close his eyes. Although painful perhaps this was for the best, since his eyes would have noted the perilous angle of the poplar tree—the tallest tree on this stretch of the Thames—and he would have remembered that poplars are dangerous in their old age.

This, the first of the winds of March he had felt, closed his eyes, but did not close his ears. 'The sound of fury' had always seemed an attractive phrase to him, but not any more now that he knew what it was.

Then suddenly, as quickly as it had come, it was gone. And John, with the supporting pressure taken away, slumped against the pile. Weak, he felt like dropping to the ground and sleeping on the instant. Had the mooring ropes held? That question kept him awake and made him open his eyes.

He hardly dared look over his left shoulder towards the spot where his boat should be. Without looking properly he could see that the nearer boats were all where they should have been—a little out of alignment, perhaps, but where they should have been. He took another look. They were all there—even the 'Aotearoa'; the Maori name for New Zealand given to his boat by the man who had originally converted it from ship's lifeboat to houseboat.

Better make sure. He hurried down the gangways and along the

pontoons. 'Thought we were getting a free trip down the river to Tower Bridge,' said Mr. Macdonald, owner of the 'Valencia', as John raced along the first pontoon. John ignored him and hurried on towards his own boat. If you stopped to talk to Mr. Macdonald, nothing ever got done.

As he went along the pontoons his eyes noted the damage the wind had done—not very much, considering its suddenness and intensity. The tarpaulin was gone from the 'Dorinda' and a couple of windows from the 'Patricia', a converted wartime landing-craft.

He had to cross the 'Queen Christina' and the 'Dorinda' to get to his boat. A rope, which moored the first boat to the pontoon, had parted. If the other one had gone, I'd be gone too, he thought. He checked the other rope. That seemed strong enough, so he decided to attend to the parted rope after he had looked to his own boat. The two boats were week-end boats, whose owners often appeared only on Sundays.

His mooring ropes showed no sign of strain and the 'Aotearoa' looked no worse for the blowing she had received. To some extent she was always protected by the boats moored upstream from her.

He went below. No broken crockery. Everything there seemed right, too, except for the bare boards in the saloon. He went back up on deck and looked thoughtfully downstream. There was no sign of the carpets. He thought of borrowing a dinghy and going downstream after them. Immediately he rejected the thought. They could be in the water or blown on to the island, which, by creating a side stream, enhanced the site of the boatyard. If they were still in the water, he was not even sure they would float.

Beth would get him new carpets. She had a large family of uncles and aunts, who lived in houses with large attics full of old carpets and things. He had been cleaning up the saloon and had put the carpets out to air after sweeping them, because she usually called for him on Sunday morning, so that they could walk together by the river, before they went back to her house, where she would cook Sunday dinner for her father and John. If the boat looked untidy, she would start cleaning it before John could raise the mildest of protests. So, because he thought she had enough to do with her job in the gown shop and housekeeping for her father, he usually tried to get things into order on Saturday afternoon.

Being on deck again, he went across to the 'Queen Christina' and knotted the parted rope. Then he looked at the ropes of the 'Dorinda', had another look at his own ropes and went below again to sleep away the rest of the afternoon.

John woke up suddenly and looked at his watch. Half-past five. Another ten minues to waken up properly and then he would have to hurry since he was meeting Beth at the station in an hour's time. They usually went into the West End to a threatre on Saturday nights.

This particular Saturday was by way of being an anniversary. They had met at a party just over two years ago. Beth had chosen 'an American musical comedy' for the first show they had seen together. Since the show was still running and because they had liked it so much, they were going to see it for the third time. They had also been to see it on their 'anniversary'—the last Saturday in March—last year. The first time, Beth being his new girl, John had bought seats in the stalls. To-night they were going to sit in the balcony at a fifth of the cost, but they were going to have dinner in Soho at a little place they liked to think of as their own.

John took his suit out of the hanging wardrobe and looked at the white shirt, which was still lying across the chair, where he had thrown it on returning to the boat on Wednesday night. He had left it there, while cleaning up, because he had thought of wearing it to-night. However, he decided that the collar was not clean enough and so had to go back to the wardrobe to get another shirt.

Next he cleaned his shoes. Usually he left this till the last and then had to wash his hands again. To-night he was organised and so he cleaned his shoes, washed, shaved and changed his clothes in the right order for him. He had his raincoat on, ready to go ashore, just before six.

He thought about turning on the radio to listen to the beginning of the news, but decided against this, since he might get interested and then have to hurry to the station. It was a fine night and he wanted to enjoy the walk along the towpath and across the Green.

As he was crossing the 'Queen Christina', he saw Ted Ingham, who lived on the 'Patricia', the converted landing craft with two windows broken by the wind earlier in the afternoon. He lived alone on the boat, now that his parents had bought a guest house on the coast. "I was just coming to see you."

"Oh, no you're not, son. I'm just on my way to the station to meet Beth."

Although they were both twenty three years old, it was natural for John to call Ted Ingham 'son'. John had a lean face, whereas the only possible description of the light-haired Ted was baby-faced. In fact, in every way but the actual number of years, John was ten years older than Ted.

"I'd have done something about your windows, Ted, if it had

looked like raining. Did your meter things record it?" Ted was a trainee meteorologist at the observatory in the park just across the river.

"I'll say they did. That's what I want to talk to you about."

"Haven't got the time, old son. Sorry."

"But I've got to tell somebody and you're . . ." Ted's voice trailed away indecisively.

John jumped down onto the pontoon. "I've got just five minutes to spare. If you can compress it into five minutes, I'll lend you an ear for that time."

"I don't know if . . ."

"That's all I've got, old son. You know how it is. I can't keep Beth waiting when she's been working all day at the store and I've been sleeping all afternoon. Tell you what. Let's go aboard the 'Patricia' and sweep up the glass and you can tell me what you want."

Ted saw that he would have to be satisfied with this arrangement and so began to talk as they climbed on board the 'Patricia'. "When the wind blew this afternoon, I was the only one there. The chief goes to a football match on Saturday afternoons. He's supposed to be there all the time, but . . . Anyway, when the wind stopped blowing, I rushed to the anemograph to . . ."

"The thing that records the speed of the wind?"

"Velocity."

"Velocity, then. It's the same, isn't it? Don't forget. You're not talking to one of your mates across there."

"This anemograph—I've told you about it before—it records a dot every minute like most of our instruments. If the wind is steady or if there's none at all we get a straight line, but if it's gusty we get dots all over the place. There's been no wind to-day except that big gust at half past two, so that the chart shows an unbroken straight line except for one dot near the sixty line and one near the seventy and both at the time of the wind."

"Seemed longer than two minutes to me."

"Probably much less. I checked the other instruments and on the one that records barometric pressure there were another two dots out of position. This time they were way below the line of record for the day. I expected that with the wind."

"Then I don't see what you're worrying about." John made as though to leave.

"I haven't finished yet, John. I started worrying when I came to do the filing. You see we have to put all the record charts for one day into a daily file and that circulates for a couple of days or so. Then one of the trainees has to sort out the charts and file all the wind charts for March together

and all the sun records together and so on. Well, before he went off to the football match, the chief gave me all the daily files for the week to last Tuesday to sort out and file in the monthly folders. And that's how I found out about the winds." Ted paused dramatically and got his reaction from John.

"What do you mean? Found out about the winds."

"They're going to get more frequent, John. This afternoon's was the fifth this month and I worked it out that there will be fifteen altogether."

"All right. So you think you've made a great discovery and you've decided we're going to have more wind. I don't see . . ."

"But if I'm right, John, the worst day's going to be to-morrow."

"You'll have to get a move on, son. You've only another couple of minutes to tell me why."

"Well, Tuesday's file was on top and the first chart in the file was the wind chart and there on the wind chart at about five past eight in the morning were two dots for high wind and a corresponding two dots for low pressure on the barometric chart."

"So there was another short, sharp, high wind on Thursday, I still . . ."

"I looked through the other daily files I had to sort out. There was another one the previous Wednesday at about half past two in the afternoon. I hunted around the office for the newer daily files. There was another wind at twenty past four yesterday morning."

"Any more?" John was being patient with Ted.

"Yes. The first one in the month was on Saturday the fourth at 5.30 a.m. That was the morning your fuses went." By now, Ted had taken a scrap of paper from his pocket to quote his dates and times.

"I know it was about three weeks ago that I had a fuse blown. We don't know that it went at half past five in the morning. You're making things fit your theory, Ted."

"But it's not a theory. I've proved it. That's what scares me. I've proved it." He took another sheet of paper from his inside pocket. "I wrote the figures down."

"Coincidence. That's all it is. You're just trying to . . . After all we expect the wind to blow pretty strongly in March."

"Yes. I admit that. But we don't expect each outbreak of high wind to happen in exactly half the time between the last two outbreaks. And go on dividing the time until . . . until . . ." By this time Ted was tense with excitement, but John remained as calm as ever. He could not have appeared calmer, if he had been a pipe-smoking actor advertising a new brand of tobacco.

"But if the time goes on dividing, Ted, it means that some time we're going to . . .

"To-morrow night at 36 minutes past midnight is the time of the fifteenth wind. After that it could be continuous."

"Greenwich Mean Time, of course."

"I'm serious, John. I mean it. Anyway it's British Summer Time now."

"What's that sheet of paper in your hand? Would that help me understand? You know I can always take things in better, if I can see them written down."

"Look at this bit first. This is how I found it out. I worked out the times between the winds. I did it to the nearest five minutes first of all. Then I changed the days and hours into minutes. I'd already noticed that each of the times were halved, so then I took another sheet of paper and ruled three columns on it. The first column, starting from the bottom of the page I numbered 2,4,8,16 and so on. Then in the next column I converted these minutes into days, hours and minutes. Finally in the third column I worked out the timetable using half past two this afternoon and that's what I got." He handed his neatly written timetable to John. "And it fits, John. It fits exactly so far."

John knew he was going to be late at the station, but Beth would have to wait. "Then, if you're right, we can expect the next one early in the morning? That'll wake people up with a bang. They won't like that on a Sunday."

"I'm right, John. I know I'm right."

"You didn't go back to February?"

"The previous files are all locked up. Beside which I didn't really want to. I mean, if . . ."

"I understand you, son. What did your chief say? I mean, does he come back from the football match before you come away?"

"Yes. He comes back. Tells me all about it." Then Ted remembered John's previous question, "He didn't say anything. I didn't tell him."

"Didn't tell him? But . . ."

"That's what I wanted to talk to you about, John."

"Well, I don't suppose it makes any difference."

Ted was relieved at this. "You don't think so?"

"No." John was very positive. "There'll be other chaps at other stations who'll come to the same conclusions and . . . What'll it be like, Ted, if it is true? I mean, continuous wind, if it does come. Do your books tell you anything about that?"

"Not much. Anybody'd be able to tell you, if he'd been stationed in Antarctica. I know this. The places where we live aren't equipped to withstand very high winds."

"Particularly the places where you and I live. So in other words it's a case of 'all fall down'?"

"Yes." Ted was sunk in misery.

"Have you given any thought to what you're going to do?" As he said this, John's mind was already working ahead, deciding what he would do. He had already decided to stay the night at Beth's. There was no point in making further definite plans until the sixth wind came in the morning. The time to make a complete plan would be after the sixth wind. Until that time he could not be absolutely sure that there was any need to do anything. With this conclusion, John stopped thinking about it.

"No. I don't know what's the best." What Ted really meant was: "You tell me what to do."

"I should go to Brighton for the week-end. It's your day off tomorrow, isn't it?"

"Yes." Ted was relieved. That was what he had wanted to do all the time. Go home.

"They'll need you at home tomorrow, if this does happen. Can I hold on to this?" John indicated the timetable that Ted had worked out. "You can soon write out another one for yourself, if you want to. And now, I think I ought to be on my way to the station, old son. You know what Beth's like when I keep her waiting."

"You don't think I should tell . . ."

"Who? Who's going to believe a trainee meteorologist? I won't believe you myself until . . ." He glanced down at the timetable. "Until 7.34 a.m. in the morning. Don't you worry about it, Ted. If this is true, the people who matter already know about it and if it isn't . . . Well, it's no use worrying other people, is it? I should just pack a few things into a bag and take the train to Brighton and the old folks at home. Tell your dad about it, if you must, but don't tell anybody else. If you can be ready in five minutes, you can walk to the station with me." John could make this offer, because he intended to go back to the 'Aotearoa' to pack a few things himself. "I can give you the name of a good restaurant in Buckingham Palace Road, quite near to Victoria Station, where they'll give you a good meal for 5/6d, starting off with spaghetti bolgnaise. I shouldn't eat here. I should get away from here as soon as possible. I'll knock on the unbroken window in five minutes time. If you're ready, you can walk with me. If you're not . . ."

John knew Ted would not be ready. He would take half an hour or more to decide what to take with him and then another fifteen minutes deciding whether to have a meal before he left the boat.

John knew what he was taking. Pyjamas, a pair of old flannel trousers, three sweaters, a change

of underwear, thick socks, toothbrush, tooth-paste, electric razor, first aid kit, torch, camera and his collection of colour slides with their battery viewer. The colour slides had always been at the top of his list of things to save, if by some mischance the 'Aotearoa' ever sank.

The only item he hesitated over was the electric razor. There would be interruption of power supplies, if the wind did recur. Up to now his mind had resolutely refused to let in the thought that to-morrow might be his last day, but in thinking of the razor he thought of that, too, and decided that he would get up early in the morning and have a shave before the sixth wind came.

He knocked on the window of the 'Patricia', as he passed, and wished Ted luck, when he said he was not yet ready. Then John walked out of the boatyard and from the towpath took a look back towards the 'Aotearoa'. He started off towards the station and Beth, who, he knew, after her first angry remarks would give him the silent treatment until they were seated in the restaurant eating dinner.

John himself got up an hour before the sixth wind was due. He had slept the night on the sofa in the back kitchen. Beth's father was a grocer, so there was only the kitchen and the scullery besides the shop on the ground floor of the house, the other rooms being above. He had warned Beth and her father that he would be rousing them early in the morning, but, since he would not tell them the reason, they had taken no notice.

He had slept well, which was more than could be said for Ted in his parents' guest house. Before he got dressed, John's first act was to make some tea. This was strategy, since he could then make sure that Beth and her father were awake. As an additional part of the softening up process, he laced the old man's tea with rum from a bottle, which was kept at the back of the kitchen cupboard. When Beth was small, her father had called the rum 'cough medicine to help me face the cold day', but that pretence no longer worked and Beth now made sure there was always a bottle at the back of the cupboard. After serving the tea, John washed himself in the scullery and put on the old flannels and two of the sweaters he had brought with him.

Beth responded to the tea almost automatically. She was one of those persons, who, when awakened, cannot linger in bed. It was a grey, uninviting morning, but within fifteen minutes she was in the kitchen cooking eggs and bacon and remarking: "We'll all need a second breakfast at ten o'clock at this rate." After eating, John shaved and at 7.25, ignoring Beth's protests, he switched off

the electric power at the mains.

The old man stayed in bed. He was not really old, but John thought of him that way. He was small, being a little over five feet tall, and very thin. John used to say that they were such 'little people', that he could carry Beth under one arm and her father under the other. He very nearly had his chance to carry them both, when, just before 7.30, he went to bring the old man down to the cellar, which was used as a storeroom for the shop.

He still had not said anything to Beth about his curious actions, for John was normally a very reluctant riser. He just repeated infuriatingly, "You'll see." Beth followed him upstairs when he said, "It's time we got your father up."

"I can't understand you, John. Let him stay there. It's the only chance he gets. Every other morning he has to have the shop open by half past eight. Just because you're up and alive and crackling, it doesn't mean . . ."

"It does this morning." And with that John marched out of the kitchen and up the stairs, calling over his shoulder, "You put your coat on."

Beth took no notice of this and followed him upstairs. "Stop it! Stop it this minute, do you hear me, John Drake?" This came from Beth when John prepared to pick up her father, blankets, sheets and all from his bed. The old man lay there with his sharp blue eyes now wide awake and peeping over the tops of the covers. "Stop it, John Drake! This has gone far enough. On a Sunday morning as well. I'll never . . ." It was too late to complete the sentence, because by now John had picked up the old man and was carrying him downstairs. Beth trotted after him wondering if she should go next door and ask for help.

As he walked through the door at the top of the cellar steps, John swooped up an armful of old coats that hung behind the door. When he had put the old man down on a case of 15 oz. cans of baked beans, he threw one of her father's old coats to Beth, who had followed him down the stairs wondering what to expect next. "Put that on. It's only for five minutes, but it's cold down here."

"I'm not speaking to you, John Drake." Beth was nearly in tears through frustration. John went across to her and draped about her shoulders the Harris tweed overcoat, which she had let fall to the stone floor. His arms would have stayed about her shoulders, but she shrugged them away. He was pleased to note, however, that she retained the coat and put it on properly.

The old man arranged the bedclothes more comfortably about him and waited. Beth turned on her father, who had said nothing—not even "Good morning." "Why

don't you say something to him, dad?"

"Quiet! Listen!" John had looked at his watch. It was 7.34 a.m.

Nothing happened. Thirty seconds ticked by and still nothing happened. "I can't understand it. Ted made it so convincing."

By this time Beth's voice had taken on a shrewish edge. "What did you expect to happen? Were you waiting for the roof to fall in?"

John's simple "Yes" silenced her once again. He was staring at his watch with the intensity of a snake about to bite. Then it began and John remembered that he had not listened to the radio since Saturday morning. His watch was a minute fast. He had never had it regulated to tell the exact time otherwise he found himself missing trains.

They felt a click in their ears and heard the first whine of the wind. Cotton-wool seemed to fill their ears and faintly through this they heard the crack and shatter of breaking glass. "That's my shop window. I'm sure it's the window." These were the first words that the old man had spoken that morning, but the other two could not hear them. They made no attempt to speak, as they knew their voices could not be heard above the din.

The three of them were safe in their cellar. A stack of cases fell over and they could feel rather than hear bumps and thumps above their heads. Their hearing was probably slightly damaged, but they received no bodily harm.

After the wind had blown itself out, they just sat where they were, not talking, but waiting for their ears to unstop themselves. Once, just once before, John had felt this exact sensation in his ears and, as he waited for his hearing to become as normal as it would ever be again, he tried to remember when and where.

He thought of the jets that flew over the boatyard as they went in to land at London Airport. He thought of a plane being caught in an air pocket. He thought of the Piccadilly Line tube train emerging into the open air near Barons Court station. None of these exactly paralleled this long period of woolliness in his ears after sound and sensation had finished.

'Rock around the clock.' The tune suddenly was switched on in his brain. Then he remembered. Four years previously he had been in Australia, where his parents had emigrated soon after the end of the war. Rock 'n' roll was beginning its frenzied career and he had gone to a performance given by Bill Haley and his Comets in Sydney Boxing Stadium. Afterwards he had walked across the grass towards the Harbour in the brilliant Saturday afternoon sunshine with this sensation in his

ears. That time it had been caused by the concentrated yelling of 12,000 Australian teenagers in the matinée audience: This time by the wind.

As though it were one of the more punctual trains of British Railways, the sixth wind blew at 7.34 a.m. precisely on Sunday, 27th March. It blew roofs from houses and chapels and churches and schools. It uprooted trees. It scattered piles of newspapers lying in newsagents' doorways to the four corners of the towns without the aid of a delivery boy. And it blew a cargo vessel just coming into the Pool of London against Tower Bridge with such force that one half was so twisted that it could never be lowered again.

At 1.34 a.m. in New York, which, in summer, is the same as 7.34 in London, it blew the television mast and part of the supporting tower from the top of the Empire State Building. And in Washington it was like 300 George Washingtons among the cherry trees beside the Potomac.

Three minutes later the Department of Defense, which had been waiting for this confirmation of what the meteorologists' computers had predicted, announced an atomic air-raid practice lasting from 9.45 a.m. to 7.00 p.m. Eastern Standard Time with appropriate adjustment for Central, Mountain and Pacific Standard Times. The message also went to all U.S. military bases throughout the world and to all embassies, consulates, economic aid missions—anywhere where government employees happened to be.

At 4.34 p.m. in Sydney, Australia, which is still the same as 7.34 a.m. in London, it formed the biggest 'dumper' of a wave ever seen on Bondi Beach and created havoc among the Sunday afternoon sun-loving crowds there. The Harbour Bridge stayed firm. It lasted precisely another sixteen hours until the tenth wind blew.

"So according to this time-table, the next one's due to blow at six minutes past four this afternoon." John finished repeating to Beth and her father what Ted had told him before he went to the station on Saturday night.

"What're we going to do, dad?"

"I know what I'm going to do. I'm going upstairs to see what things look like there." He hitched the bedclothes around him and started upstairs, pausing by the light switch at the top of the steps. He tried the switch once and then flicked it to and fro several times. "No electricity. That's one thing." He said this over his shoulder to Beth and John, who were held up on the steps, while he played with the switch.

"Oh, I turned it off at the main, Mr. Moore. Just in case. We'd better see if there are any

broken wires and things, before we turn it on again."

Beth tried to pass her father. "Dad. You'd best let me go ahead of you and get you something to put on your feet before you go into the house. We know there's going to be broken glass somewhere . . . and . . ."

"You don't need to. There's a pair of old boots here at the top of the steps. There aren't any laces in them, but they'll do till I get upstairs for my slippers." As he said this, he was already slipping his feet into the boots.

He emerged into the kitchen with his many-layered shawl of bedclothes clutched about his shoulders and slip-slopping along in the boots, which did not fit well without the aid of either socks or laces. He looked around him, noted a crack that went diagonally from corner to corner across the plaster of the ceiling and turned to Beth and John, who themselves were emerging from the cellar. "From all the noise, I'd have expected more than that."

"But look at all the soot blown down the chimney." That was Beth, the housewife, speaking.

"That can soon be cleared up."

"It's all right for you to say that, but you won't have to do it!"

John had a worse thought. "Better check it's not blown any cinders from the fire." It had an all-night grate. "There'll be quite a few fires as a result of this."

"There's no smoke." Beth's father moved towards the shop. "Let's see what it's like in here."

"I'd better go first." John was through the door before either Beth or her father could precede him. "And watch out for broken glass, when you come through."

The plate glass window had imploded and its fragments lay everywhere, as did the cans and bottles that the wind had swept from the shelves. Strawberry jam was mixed with tomato ketchup; olive oil and vinegar made puddles of French dressing, which soon would seep through the floor to the cellar below.

"I don't want to look at it." Beth's father was an old man now, not someone in his early fifties to be thought old by John's generation. He went back into the kitchen, letting the bedclothes fall from his shoulders. He sat down in his armchair by the fire and shivered in spite of the heat coming from it. "You say it's going to happen again, John?"

Beth's eyes asked John not to confirm this, although he had fully explained the situation in the cellar. "Looks like it." John had a plan and, if it was going to be possible to carry it out, he had to get them moving. They would have to face the next—the seventh wind—perhaps right out in the open, but they could be in the cave by the time of the eighth wind.

"Oh, John, don't . . ."

"I want to know, Beth." Her father's voice was firmer now and he had stopped shivering. "What do you want to do, John? You wouldn't have wanted to stay the night, if you didn't have a plan."

"I want the van. I think I know a safe place, but to get there we'll have to use the van."

"Anything you say, John. I'm going to get dressed." With those words he had transferred his position as head of a family to John. He had to go past the glass-paned door to the shop to get to the stairs, but he carefully stopped his eyes from seeing the damage beyond. He came back for the bed clothes, but John took the blankets away from him and said, "We'll need those."

"I hope you're satisfied, John Drake." Beth's eyes were filled with tears of rage. "How could you?"

From experience John knew that if he allowed her to get started, Beth would continue in that vein for many minutes. He ignored her outburst. "I want provisions for three for a week or so. Things like butter and rye biscuits, canned salmon and luncheon meat. And don't forget the can-opener. Is there a case of Heinz tomato soup in the cellar? We'll want the primus stove and the can of stuff to work it . . . and matches. I'm going to see if the van's right."

"If you think you're going to talk to me like that, after what you've just done, you've another think coming."

"I'm not talking to you, Beth. I'm telling you." He stooped to kiss her before she could pull her face away. "I'm going to look at the van." As he went out of the back door, he took the van keys from a hook beside it, knowing that she would hesitate for a while and then do as she was told.

The doors had been wrenched off the garage, but the van itself had not been touched by the wind. He inserted his key and held his breath while he tried the starter. The engine fired first time and he made a little prayer that they would reach the cave.

He cleared out the empty cardboard cases in the back of the van and looked around the garage. He quickly noted the things that would need to be loaded in the back—jack, repair kit and, best of all, a five-gallon jerrican of petrol. One week during the Suez Crisis, Mr. Moore had been unable to make his grocery deliveries because of the shortage of petrol. Ever since that time he had kept the can of petrol ready. Every six months or so he would use the petrol from the jerrican and get it replaced at the garage—again as a measure of safety. He had not wanted to let his customers down again.

John returned to the house to find that Beth, having shed her few tears of rage and frustration, was carrying out his instructions.

"Blankets and candles and matches and food. Primus and mattress and saucepan and soup. Maybe a second small mattress as well." John reeled off the items they should take with them. "Needles and kettle. . . . You don't sell seeds, do you, Mr. Moore?"

The old man, wearing his best suit, was helping with the items that came from the house, but he would not enter the shop to get food. "No. Why?"

"Anybody would think we were setting out for a desert island." This was Beth speaking and John forebore to reply that perhaps they were. He continued listing items to be packed.

In the end Beth gave up. "I'm not looking for anything else, John. We've enough to fill the van already. I'm going to make some coffee."

John had by no means finished listing items. Each time he mentioned one two others occurred to him. However, he saw the sense in what she said and began loading the van. Then he settled down for five minutes to drink his cup of coffee.

"What about the shop?" John had waited until almost the last moment before asking this question. The old man had had time to overcome his disgust. Perhaps he would not want to follow John any more. And if the old man refused to come, John knew that Beth would refuse to come, too.

"Finished."

"Oh, dad. Don't say that. We could soon . . ."

John cut across this as quickly as possible. He could not let Beth with her mania for cleaning up start clearing the shop. "I looked for tarpaulins in the garage to cover up the window space."

"Leave it. 'S finished." The old man has been at his 'cough medicine', John thought.

"Anything special you want to take with you?" John had put his boxes of colour slides under the front seat.

"No. 'S all finished."

"What about you, Beth?"

"I've already seen to that." John had never written her a letter, but he had sent her two Christmas Cards and two birthday cards. These were in her handbag and she was wearing his last present—a dark green sweater—over her green and black tartan trews.

"Then shall we get moving?"—one of John's favourite questions. He thought somebody should have made a speech, but the old man was probably beyond it and Beth was perhaps too choked up to say anything.

He hurried out to start the van, leaving Beth and her father to follow him. They'll want a last look round, he thought, but they were outside before he had time to start the engine. He noted the careful way that Beth locked the back door and put the key in her handbag,

but was tactful enough not to mention to her the gaping hole in the front of the shop that anybody could walk through.

As she got in beside John, Beth, knowing she had been a bit hard on John, gave him a kiss and said, "I'm glad you came to look after us, John."

They were all three silent as John turned the van into the street. "Watch out for patches of broken glass" was all he said.

They were soon crossing the river and John automatically glanced downstream towards the boatyard. The poplar tree was still a landmark and there were boats in the boatyard. He was not close enough to distinguish more and he could not see as far as the coal wharves, whither the 'Queen Christina' and the 'Dorinda' had been blown and where the dirty brown water of the Thames filled the saloon of the 'Aotearoa'.

Everywhere there were signs of clearing up. Civil Defence teams had been alerted and already most of the main roads in and out of London were available to traffic. Broken glass filled the gutters and uprooted trees and overturned cars sometimes blocked the pavements, but John had no difficulty in getting to Hyde Park Corner.

The temptation was great to make a tour of London's landmarks—to see whether Nelson's Column was still standing in Trafalgar Square (it was) or whether the statue of Shakespeare still recited sonnets in Leicester Square (he was now doing it lying on his back on a couch of broken glass and slates in the entrance to the foyer of the cinema where Laurence Olivier's production of 'Richard III' had its West End showing). John decided to keep moving and the others made no protests—the old man, indeed, had said only one word since they had started—a 'Yes' in reply to their question whether he was comfortable.

John turned north into the Eastern Carriageway of Hyde Park. Not having been here for several months he was surprised by the many road improvement changes which had taken place.

As they left the park they could see the Sunday strollers beginning to form groups about the early speakers at Speakers' Corner near Marble Arch. John speculated about their subjects for the day. The prophets of doom would be in their element. They would preach their 'Prepare to meet thy God' sermons with a vengeance. The Africans would make variations on the 'Wind of Change' theme not knowing that the wind had blown in Africa, too, since the news of the 'blow' to 'colonial' Britain, America and Europe was enough to crowd out the reports coming from the remainder of the world. There would be those who would blame the Russian atomic bomb

explosions in the Arctic, those who would talk about other planets sending a warning, those for whom the previous rainy summer would offer a solution, and those who would simply say, "Look to yourselves."

"I'm hungry." The old man had broken his silence at last. His hunger was not surprising since he had had nothing but tea with rum, rum straight and coffee that morning. When he said this, they were almost two hours on their way. They were on the Great North Road well clear of the London suburbs and John had pulled into the first petrol station he found open, since there was no sense in using the jerrican of petrol until they had to.

"I made sandwiches so we could eat as we go. Where are we going, John?" John had been so much in command that up to now it had not occurred to Beth and her father to ask where he was taking them.

"We're not having sandwiches, if we can get a proper lunch. I'll tell you where we're going when we're eating lunch." John did not like to talk while he was driving. He pulled into the courtyard of a prosperous looking hotel. Expensive cars filled the car-park.

"We won't get lunch here," Beth said.

"Why ever not? They serve lunches, don't they?"

"Look at the cars parked outside. Look at the way you're dressed and me in slacks. Dad's the only one of us dressed to go in a place like that."

"We'll make them serve us. I'll . . ."

"I wouldn't enjoy it, John. If I go somewhere like that, I want to be properly dressed."

"She's right, son. We'll enjoy what we eat a lot more in a smaller place."

John was inclined to be stubborn, but gave in. "Well, as long as you understand that I'm not going to be satisfied with sandwiches."

He drove out of the courtyard and within the next mile found a place that satisfied Beth. They had a roast beef and apple tart luncheon and John complained that nobody could make Yorkshire pudding like his mother. Several times he had tried to teach Beth how to make it but without success.

While they were waiting for the first course to be served, John told them where he was taking them. "We used to play in this cave when I was a kid. Seems a long time ago with Australia and everything in between. It's a mile outside the village where we used to live. Dad was a carpenter there, but there's better money building houses in Australia. But I've told you that before.

"While Ted was telling me what he thought was going to happen, I was trying to think of the safest place I know. I suppose it's only

natural to go back to childhood for the safest place, because that's your home, isn't it? And that's how I thought of the cave. It has three entrances, so, if one gets blocked because of falling rock, we still have two other chances. How's it sound to you?" He had been sure of himself up to this moment, but now he desperately wanted their agreement.

"Sounds as good a place as any to me." The old man really had made John the head of the family.

"But suppose we get there and all three entrances get blocked."

"Let's get there first, Beth, shall we?" Don't forget there's another wind due to blow at six minutes past four and we've got to get through that."

After eating, John pushed the van forward as hard as he could. There was a thirty mile an hour speed limit on such delivery vans. He counted on the police having more important duties that day.

There was evidence of this as they passed through Newark soon after half-past three. Police cars with loudspeakers were touring the empty streets. "Be under cover at four o'clock. It is expected that the wind will blow again at six minutes past four. Your cellar is the safest place. Underneath a strong table placed hard against the chimney breast is the next best place. Draw your curtains to protect yourselves from flying glass."

They were over-taking the police car as they passed the castle and the message was echoed back to them from the ruined walls above the River Trent. As John turned left to cross the river bridge, he said, "Watch out for shelter now. We haven't too much time."

It was ten minutes before Beth said, "There, John, there!" 'There' was a disused aircraft hangar, now being used as a barn.

"Just the place, Beth." John had forgotten about the many wartime aerodromes there used to be in this flat countryside.

"There's the gate, John. I'll open it for you." John had been worried about the old man and was glad that he had offered to do something. He would have liked him to have offered to drive the van for a while. However, he thought grimly, the wind itself will give me a rest; they say a change is as good as a rest. He must have muttered the last few words, because Beth asked him what he had said.

"Nothing," he said as he turned and braked in front of the gate. Beth's father jumped out quickly and opened the gate. He needed the lunch; that's what made him seem so old, John thought, as he drove through the gate and up to the hangar.

"You might have waited for dad," Beth said, but he hardly heard her. He was out of the van and looking for way in to the hangar barn. There was a pair of dou-

ble doors set in the larger doors, but they were secured with a padlock. John looked around for something to force the lock. Nothing. He got the jack handle from the van, but that snapped at the first attempt. He took another look. The lock itself was the strongest part of the fastening. He went back to the tool kit and inside the plastic case was an extra-large screwdriver—not part of the original kit. With this he was able to unscrew the hasp that supported the padlock.

John switched on the van lights and drove the van around the hangar, noting the layout. Bales of straw, a lot of loose straw, two tractors, a plough, some tarpaulins and ropes and a vast area of empty echoing space. He stopped the van in the far corner near the tarpaulins. John looked at his watch. Fifteen minutes left. He had taken far too long to open the door. He parked the van in one of the empty far corners of the hangar.

"Right, Mr. Moore. Can you and Beth get one of those tarpaulins and open it out behind the van, ready to stretch over it? I'll get the ropes and tie her down." He did not know if this was a wise thing to do, but he tied a couple of ropes round the axle and secured them to metal rings in the main girders supporting the roof.

By the time he had done this, Beth and her father had one of the tarpaulins opened out behind the van, which John had parked facing into the corner as an additional protection for the engine. John cleaned the worst of the axle-grease from his hands, as they draped the tarpaulin over the back of the van. Then John told them to get inside the van.

"What about you, John? If you're going to tie down the . . ."

John looked at his watch. Seven minutes to go. "I haven't got time to argue with you, Beth. Get inside." It was the old man who led her into the cabin.

John slammed the door after them. Beth opened the window. "No, keep the window closed. We want to keep the straw out as much as possible. But give us your scarf, Beth. That may help me."

Beth handed him the silk square with its pattern of hounds and riders in hunting pink. "Be careful, love."

"Close the window, Beth."

"Good luck."

"Same to you, kid." With this John flung the tarpaulin over the front of the vehicle and hurriedly made a parcel of it. Then he raced across the hangar and dragged back a bale of straw. This he placed in the corner in front of the van in case it should break loose. He was just putting this in position when he felt the now familiar popping in his ears. Only this time complete deafness followed it. He raced back across the hangar and flung himself into the pile of straw.

The first blast of wind came and

the hangar shook. Wisps of straw eddied into the air near the doors through which he had driven the van. I ought to have fastened those doors again, he thought. Then he put the scarf right over his face and quickly tied it about his neck. He burrowed deep into the pile of straw, wondering whether he could suffocate in just under two minutes or whether it took a much longer time.

The main blast tore at the smaller doors. Then it tried tearing at the larger doors. It was a destructive child with a toy. It kept on twisting and turning at one large door until it finally broke away. The toy was no longer any use, but the child was not yet satisfied. He had to get at the insides as well.

The piles of bales came tumbling down. They just missed John and so the wind was free to play with him and his covering of loose straw. The wind filled the hangar with a snowstorm of loose straw and played with the blind and deaf man as though he were the ping-pong ball in an enormous game of blow football. It tore the scarf from his face on a projection of the floor, so that he could see again, blew him sideways against the bales of straw and looked around for another toy. It tore a hole in the roof and funnelled the 'snow' through it. It moved a tractor hard against the rear doors of the van.

John thought that the wind had forgotten him except to keep him, as it were, underneath its thumb pressed against the bales of straw, his eyes streaming from the yellow straw dust and his cheek cut, but unable to bleed because the wind acted as a temporary tourniquet. Now he realised that it was holding him beneath the thumb of the left hand while it picked up a knife —the plough—in the right. He could only make what movements the wind allowed and so was unable to make none at all. He could only watch the ploughshares heading for his face.

Suddenly the left hand of the wind slackened its grip on John for a moment, but he knew he was too exhausted to move—perhaps even too fascinated by the approaching ploughshares to move. However, having slackened its grip on John, it also freed the straw bales against which it had pressed him. The piles of bales began tumbling about him in time to change the direction of the furrow the end ploughshare would have dug in his brow. They sliced a bale of straw into eight neat sections and cut their way through the corrugated iron, which enclosed this side of the hangar.

That was the last game the wind had time to play in the hangar.

The seventh wind blew at 4.06 p.m. on Sunday afternoon.

Generally, as a result of the effort of the police and other or-

ganisations, the people of Britain were sheltered in their homes and few of them died in the afternoon —except for the crowd that had gathered in Trafalgar Square in London. The police had been unable to disperse them.

The wind blew up Whitehall, took Nelson off his column and deposited him through a skylight, empty of glass since the wind of the morning. He was whole while airborne, but shattered into pigeon-dirtied fragments on the floor of the National Gallery, where his arrival shook two El Grecos, a Velasquez and a Goya from the damask-covered walls.

The wind blew up Whitehall and compressed the crowd of 50,000, which was already as tightly packed as it thought possible. Some died because their fractured ribs pierced their lungs. Many with stronger ribs were suffocated. And those, who were neither suffocated nor had their ribs fractured, were unwittingly trampled to death by their fellow citizens. Very few of the 50,000 survived the seventh wind.

Up to now the wind had hit those places on or near the sea, which was why Britain had suffered so much. Now the seventh wind struck deep inland. At 12.06 p.m. it shattered all the glass in the beautiful new buildings in Brasilia. At 9.06 a.m., Central Standard Time, it made the Windy City really live up to its name and in Detroit 10,000 brand new cars on an outdoor lot waiting to be shipped were fashioned into a chromium-plated junk heap against a wall of the factory.

The seventh wind had stopped playing, but John lay bruised and battered among the bales of straw. He could not hear a sound and, full of straw dust, his eyes were streaming in tears. He knew that Beth and her father would be inside the van, wondering what had happened to him and trying in vain to get out. Still he could not move.

He raised himself on one elbow and saw blood dripping on to the supporting hand. Now that the pressure of the wind was taken away, the blood could flow freely from the cut in his cheek. The tears washed the dust from his eyes and he was ready to take stock of the damage to himself. Hands scraped and torn, with blood and axle-grease coagulating together. Cheek cut and bleeding profusely. Innumerable bruises that would only show themselves later. Deaf. But on the other hand he was still alive, there did not seem to be any bones broken and, with luck, the tractor would not have seriously damaged the van.

The deafness was the worst. To see the violence of the wind and not to have heard a sound was, to him, far worse than the battering he had received.

Well, let's see if I can stand up, he said to himself.

"Let's see if I can stand up," he repeated aloud in the hope that he might hear his words echo across the empty spaces of the hangar. But he could not hear the words. They only echoed in his imagination from the inner side of his skull.

"Let's see if I can stand up," He repeated the words aloud a second time with his fingers on his throat to check whether he still had a voice. He had, but what use would it be if the others were the same? He staggered to his feet, using a bale of straw as his support. He sat down on the bale to gather his strength for the walk across the hangar to the van. When he reached it, his fingers fumbled over the knots holding the tarpaulin at one corner. Painfully he took his knife from the back pocket of his trousers and cut through the knot and weakly flapped the tarpaulin at that corner.

Beth had the door of the van open in a moment and was all over him, crying and fussing and talking wildly. The imprint of the cut on his cheek appeared on hers, as she hugged him. Without his hearing, he remained emotionally detached and watched until his eyes told him that her spate of words had subsided. Her father had climbed out of the van by this time.

"Can you both hear me? Nod, if you can." They both nodded. "Did your hearing go during the wind and come back later or was it like this morning and you could hear something all the time?" They both nodded again and John realised that he did not know what they meant, because his question had been badly worded. "Could you hear all the time?" This time John was relieved to see them shake their heads. Perhaps his deafness was temporary after all.

"Right. Well, listen to me. I'll try to be as clear as possible and then there won't have to be any questions. We've got to see if we can get the van out. Here's my knife, Mr. Moore. I made the knots as tight as possible and the wind has tightened them still further. You'll have to cut through the ropes holding the tarpaulin and also through those around the axle. Make sure you clear the ropes away properly from there. You'll have to throw the tarpaulin back over the tractor, release the van brakes and push the van forward a bit to clear it right out of the way. Once we can see the van properly, we'll think about getting her out of the corner."

They followed his instructions and Beth joggled the handle of the rear door of the van to show it would not open.

"Never mind about the doors, Beth. Let's see if the front end is working first. Try to start her, Mr. Moore." John watched the exhaust, because he would not be able to

hear. At the fifth attempt the engine started. John watched and waited as the old man tried to reverse around the tractor.

"I couldn't reverse around that myself, Mr. Moore. Not if I tried a thousand years. No. We'll have to try something else."

"Dad. Come and help me." Beth had released the brake of the tractor and was trying to push it out of the way. They tried, but the tractor did not budge.

"Use the van. Reverse into it gently and then, when you're touching, give her all she's got."

This only moved the tractor back eighteen inches, but it was enough to allow Mr. Moore to reverse the van around it.

Beth wanted to take care of John's wounds, but he said she could do that on the road. Instead he told her to crawl through from the cab and get the jerrican of petrol from the back of the van. Once on the road, they would keep moving and not stop for anything unnecessary.

So with her father at the wheel, Beth did the best she could with John's first aid kit. John allowed her to put sticking plaster over the cut in his cheek, which turned out to be quite a small one, although it had bled profusely. They were to learn later that it was a characteristic of conditions coming with the wind that everyone became a haemophiliac. He let her clean, but would not let her put bandages on his hands. When she had finished he used a small piece of cotton wool and a drop of peroxide to wipe away the stain his blood had made on her cheek.

Generally the road was clear. The wind had had its way with glass in the morning and the shattered fragments had been cleared away by the Civil Defence units soon afterwards. Now in the towns they were looking for fallen chimneys and the people trapped by them.

There were few people on the streets of the towns they passed through. This changed towards six o'clock as people made their unaccustomed way to church and chapel. Usually they contented their conscience by watching the religious programmes on television with half an eye on the Sunday papers in case they had missed any of the juicy bits.

John's deafness left him about this time and he was able to hear from Beth what it had been like in the van during the wind. For her the terror of not being able to see had been added to the terror of not being able to hear. And even worse had been the moments after the wind had ceased and John had not appeared.

In one town fairly close to their destination they had to make a detour because the bridge across the river had collapsed when a mill chimney had fallen across it. They had to take a roundabout route

through the town, which took them past the parish church. The old man stopped the van for a moment to listen to the singing. There was a crowd in the graveyard as well as filling the church.

O God, our help in ages past,
Our hope for years to come,
Our shelter from the stormy blast,
And our eternal home.

They passed through Thripley Daleside, John's birthplace just before seven o'clock. The sun was setting. The sunset was the most brilliantly colourful and, therefore in this particular place, the most terrifying sunset that John had seen. If he had not been so exhausted, he would have asked the old man to stop in order that he could photograph the winter patterns of the trees against the red and purple terror of the departing day. Instead John contented himself with noting the few changes that had taken place, since he had left over twelve years ago.

There was not a sign of life in the village—neither candlelight in the houses (they knew that the greater part of Britain was now without electric power) nor the sound of hymn-singing voices from the parish church. Had the wind acted even more strangely here and destroyed them all? I hope not, thought John.

"I can't understand where everyone is. Anyway, take the left fork after you come out of the village. It leads straight to the caves. There's an open space right at the entrance, so we can take the van right there."

He understood before they had gone another mile. The space in front of the cave entrance was clear, but to one side was a tangled mass of cars and vans. A police constable came out of the public lavatory that had been Thripley Daleside's contribution to the Festival of Britain in 1950. The sound of hymn-singing filtered out from the entrance to the cave.

They got out of the van and the constable came towards them. He was ruddy-faced, fat and very deliberate. He glanced towards the tangled mass of cars. "Looks like we're stuck here, whether we like it or not. Bring much stuff with you? We'd best get it under cover before the next one comes. I've put my wife and kids in a small cave off this entrance one. There's space for another three in there."

"The door of the van's stuck and I . . ." John looked down at his scraped and torn hands.

"Half a tick." The constable disappeared inside the cave and reappeared with a younger, thinner version of himself. "Brother Jimmy. His beat's Thripley Crossdale. Come far?" John was able to tell him, while Jimmy, whose beat was Thripley Crossdale, climbed through the cab and over the cases in the back of the van and then

battered at the back doors with his police boots until they opened. Their belongings were soon transferred to the side cave.

"We're not using the main cave. Might be dangerous, if them stalactites start falling. By the way, I'm Joe Lightfoot and this is my brother Jimmy."

"I remember you now. Mary used to be in the same class as me. You two were in the army. You used to bring her bags of sweets when you came home on leave. I'm John Drake and this is Beth Moore and her father." John turned to Beth. "I used to be at school with their sister."

"You'd be Carson Drake's son, then. We've been talking about you to-day and your dad and mother. We've been talking about everybody who used to live in Thripley and wondering where they are now and what's happened to them to-day. Is it bad where you've come from?"

"Pretty bad."

"The women'll be making something to eat soon. We'll have a talk then. There's still the same old people here."

They went into the main cave where Joe went back to his wife and children to join in the last hymn. The central cave was a natural cathedral. Its stalactites, hanging down, produced the same round tone for the singers that the Gothic pillars and carving in a man-built church would have done. The stalagmites made natural candlesticks and the glow of two hundred candles and the glitter of mica increased the eerie beauty of this religious service.

All the time the service had been going on, soup had been heating in an array of jam pans on a circle of primus stoves. It took a long time to heat and one girl had been watching and stirring during the service. She would make a round of the pans, giving each a vigorous stir and then pick up her hymn book again until she thought it was time to make another round of stirring.

Now some of the women began taking the pans off the stoves and putting large kettles of water in their place. The two hundred people queued up for their soup and there was a small loaf of bread between every three persons. It was new wholemeal bread, because, when Joe Lightfoot had received his instructions for safeguarding the village people, he had persuaded the baker to make a new batch of bread in the time between the sixth and seventh winds. Joe Lightfood had also thought of communal safety in the caves as opposed to individual safety precautions in homes.

Each family had its own private provisions as well and those who wished spread butter or margarine on their bread and opened a tin of meat or a packet of biscuits or ate the cooked ham that had originally

been bought for their Sunday tea. The only rule that had been made so far was that there should not be indiscriminate use of stoves—all cooking was to be communal.

John, Beth and her father were ready for their meal and supplemented it with corned beef and sliced peaches. They ate it sitting upon the larger mattress, over which Beth had spread a blanket. John offered some tins to Joe Lightfoot, but his wife had seen that they were well provided for and so the offer was refused. The women came round with teapots of tea and only those who could drink scalding hot tea had emptied their cups or mugs by the time the eighth wind came.

Physically this was the easiest wind for John. The deafness came and brought with it depression. He lay back on the mattress and held Beth tightly. They watched the candle flames flicker, but not go out. They felt the ground beneath the mattress shake. Rock falling somewhere, thought John. That was all. They were safe.

But elsewhere people were not so safe, when the eighth wind came at 8.22 p.m. on Sunday evening.

Pilots of jet aircraft were not so safe as they thought they were. During the previous wind they had flown over the storms below and many of them had persuaded their aircraft controllers to have their planes refuelled in order to be in the stratosphere by the time the next wind came. But something new came with it. This time the metal of the planes acted as a focussing point for eddies in the thin upper air. The eddies became wirlwinds. The whirlwinds sucked the planes down from safety towards the lower atmosphere, where their pressurised cabins were forced to give way. Less than two minutes saw the end of the jet era.

John's deafness left him quickly this time, but the drop in pressure left a lassitude that was hard to overcome.

Joe Lightfoot was the first in their small cave to move. He went to inspect the three entrances to the caves. He came to John when he had completed the tour. "Come and meet some of the folks. There's lots as will remember you and your dad and your mother."

"Coming with me, Beth?"

"I'll stay here with dad." Her father had fallen asleep as soon as the wind had ceased to blow.

John walked around the cave with Joe and in a hundred minutes his childhood was re-created in half as many anecdotes. He knew Joe was using him as a morale-builder to make people remember the distant past for a short while and give them something to think about.

The round of tea began at ten o'clock. Already some of the can-

dles were burning out, for many of the people had gathered there soon after they had eaten their Sunday dinner, in order to be 'ready in good time', just as they arrived at a station long before their train was due to depart.

John made his way back to Beth to have his tea with her.

"Do you think I ought to wake dad up? He hasn't wakened since you went away."

"No. Let him sleep. He's had a hard day."

"What about you?"

"Me, too. Come on, Beth. Drink your tea up. Don't forget it went cold the last time."

Beth shivered. "Keep me close, John. You won't go away again, will you?"

"No. Not if you don't want me to." He glanced at his watch, took her mug and put it down beside his own.

"It's time, then?" Beth moved closer to him as she said this.

"It's time." There was no more to say. He settled down with his arm about her and they waited for the ninth wind.

There was the popping in their ears and the deafness came upon them. Then when they could not hear, the wind stole in and blew out all the candles the moment before they lost consciousness.

The ninth wind blew at exactly 10.30 p.m. on Sunday night. In the same way that its predecessor had created whirlwinds, this one created waterspouts. No submarine nor ship at sea survived.

The first thing John recognised on regaining consciousness was a scraping sound, which he identified as someone attempting to light a match. With an effort he lifted his wrist and looked at the luminous dial of his watch. Five minutes to one! They were safe! The ninth wind had blown and here they were, exhausted perhaps, but still alive.

The match flared up and molelike John shielded his eyes.

"Five minutes past eleven." It was Joe Lightfoot's voice.

"Are . . . Are you sure? I made it five to one."

"You're optimistic, lad. Not long now until the next one. Not much we can do now, I suppose, except wait for that. Still I might as well make sure we're going to get out after it's all over. He struck another match and lit a candle. "Coming with me?"

"No. I'd best wait here. I don't want Beth to come to and not find me by her side."

"Right you are, lad. No, Jenny. You can't come with me. Stay here and talk to Mr. Drake." Jenny was his ten year old daughter. She came over to John as her father went into the main cave after he had lit a second candle for them.

John had no idea how to talk to a girl of ten. He thought of asking

her about school, but in the circumstances that seemed foolish. "Like to see some pictures?" He reached behind him for his colour slides and viewer.

"Silly! We need more light to look at pictures."

"We don't need any light to look at these." By now John had a box of slides open and one ready to insert in the viewer. "Ready now?"

"Ooh! It's like a little television set. Can I hold it?"

"All right. I'll put them in for you, but don't hold it so close to your eyes."

They were fast friends and talking about the animals in London Zoo by the time Beth regained consciousness. At the far end of another small cave on the opposite side of the entrance cave three girls were singing quietly, their faces forming a perfectly composed candlelit picture.

"How long . . . ?" Beth could not complete the question.

"You don't really want to know, kid."

"These are smashing pictures." Jenny piped up. "We've been looking at you in a bikini. Last summer mum said I'll have to wait until I'm seventeen before I can have one. Seven years is an awful long time and I'spect they'll have gone out of fashion by then."

"Oh, John. I don't think I can . . ." John could almost hear the tears in Beth's voice.

"Come on, kid. We've been fine so far. Have a look at the pictures with us. It's like a little television set, Jenny says."

"Only it's in colour, so it's better."

Joe Lightfoot came back. "We still have two ways out. Some of them stalactites came down the last time. I knew we were right not to stay in there."

"I'm going out. I've got to get out of here, John." Because he had been turned towards Jenny, John was unable to stop her. Joe, being the one on his feet, was the one who had to do that. He transferred his candle to his left hand, gave her a clip on the jaw with his right and moved in with his right arm immediately after to break her fall.

"Sorry, lad. It was the only thing to do. If you let one of 'em start, they might all start." He gave the candle to John and lowered Beth gently to the mattress.

"Ooh, dad! I didn't know you hit women."

"You keep quiet, Jenny, or I'll give you some of the same."

"I never expected she'd . . ." John did not know what to say.

He did not have to say anything more, because they recognised the tenth wind approaching by the sudden dullness in their ears. There were many who had not regained consciousness between the winds—Beth's father and Jenny's mother and sister were among

them—so the ones who were awake, knowing what had happened the last time, lay down and made quite sure they were comfortable in the last seconds remaining.

Joe made as though to take Jenny with him across to her own family, but she snuggled closer to John. "I'm staying with Mr. Drake and then he can show me some more pictures when we wake up."

The wind gave them no more warning and quietly stole their consciousness from them.

The tenth wind blew at 11.34 p.m. It destroyed the last remaining bridge in the world—the Sydney Harbour Bridge, where the time was 8.34 a.m. on an otherwise sunny Monday morning.

Beth became conscious at the same time as John. "Are you awake, John?"

"Yes . . . just."

"My chin's sore."

"Is it?" John was not going to remind her of what had happened.

"I remember now. He hit me."

"He had to. We couldn't have you running out into the night."

"What's going to happen now? I know you said the winds were going to happen closer and closer, but I never really believed it till now."

"I think the next time we'll stay unconscious till it's all over and then . . . and then it's going to be a hard to-morrow, Beth. There's not going to be anything left but a tangled mess in the world we knew. It'll be as though . . . as though we were, well, a sort of cavemen all over again. Only this time we know a lot more than they did . . . or at least we ought to. We're lucky to be here, Beth, surrounded by people who've lived all their lives in the country. Townsfolk get too much specialisation . . . almost without realising it."

"Are you . . . Are you going to stay with dad and me, John?"

"I've shown that by bringing you here, haven't I? I mean, if I'd been out for myself, I could just have left London without saying a word."

"I know that, John, but a girl likes to hear things said sometimes and not just understood."

"What more do you want me to say, Beth?"

"You should know that without me having to tell you."

"I love you, Beth. Haven't I shown that plainly enough today?"

"You've shown it, but you haven't said it."

"I've said it now. I love you, Beth. I love you. I love you. I love you. How many more times do I have to tell you?"

"You've told me. Now show me."

There was a sigh on the other side of John and a small girl's voice piped up: "And then they

kissed and they all lived happily ever after. That was lovely—better than a film. I wonder if dad and mum ever talk like that. I suppose they must do, otherwise I wouldn't be here."

The eleventh wind blew at six minutes past midnight. The people in the cave slept on in their comas and had not wakened, when the next wind came sixteen minutes later. Nor when the next wind came another eight minutes later at half-past midnight.

At 00.34 hours, British Summer Time (the time of the fourteenth wind), two and a half billion people began to die from a new form of the haemophilia some of them had experienced earlier. The abnormally low pressures caused their noses to bleed without ceasing.

Two minutes later at the time of the fifteenth wind death began for the comparatively fewer millions who were sheltered in caves and air raid shelters and underground stations. They were drowned—not by water but by their own blood. Their noses bled, too, but inwardly, thus filling their lungs.

In the whole world there were eight survivors from the fifteenth wind of March. None of these eight were in the Thripley Caves. The eight were made up of five men and three women.

The five men were down the deepest mine in the world. They were four black mine safety officers and their white South African supervisor. They had been carrying out the mine safety patrol, which had to go on, wind or no wind, Sunday or not.

The three women were members of the Anglo-American Women's Himalayan Expedition. They had set out to conquer their chosen mountain at 3. a.m. on Monday morning, leaving behind at their advance camp three other members and several Sherpa guides, who had come with them from the base camp.

The winds left a quiet region above 20,000 feet. At five o'clock they were in this region climbing steadily upwards, when the fourteenth wind killed their fellow members and guides at the advance and base camps. They saw the storm below, but since it did not threaten them they continued.

Soon afterwards the weather became suddenly clear. They reached their peak at mid-day in perfect conditions. There were no clouds below them. One of them said, "I could almost think that I was seeing the whole of Asia around me." This was exaggeration, but, having the best eyesight of the three, she could see the furthest overland that any human being, man or woman, had ever been able to see while standing on solid earth.

The problem of Identity is one which much exercises certain thinkers, as is that of the Integration—or dis-Integration—of the Personality. Do we, really, know who we are? Do we, really, know what—or whom—we want? Women was said in times past to be "the Crown of Man's head"—but which woman? which man? which crown? are questions this story puts. Love and lust, jewels and glass, buying and selling, a suitor out of time and space who sought to adorn a set of loving arms—or, at any rate, of arms for loving . . . Let us hasten, then, O ye beloved ones, to the Street of the Willows . . .

THE DIADEM

by Ethan Ayer

ANGELA LARCOM WAS A GIRL with no more than the usual ideas for her age and sex, and if she had heard this description, she would have cheerfully agreed.

These ideas included marriage and children, and at least the degree of comfort, if possible, that she had been used to. This last was average, just as Angela was, and so it was doubly curious that it was to her fourth floor brownstone (64 Willow Street) at the end of a particularly trying day at the hospital, that the package came.

Angela had climbed the three flights of stairs, kicked her shoes off, put some water on to boil for the tea which she did not drink because she liked it but because it picked her up enough to face, on the one hand, an evening with Ronny, or, on the other hand, an evening without him.

In a chair, with her coat and gloves flung on a sofa, her face with its almond eyes turned towards the ceiling, her hands, on one of which was Ronny's engagement ring, dangling over the arms, she heard the buzzer at the door.

Hell, she thought, let it ring.

Then, Hell, she thought, it might be Ronny or mother.

Then 'Oh, Hell!', she thought, and got up to press the door re-

lease to the downstairs lobby. Then she went out to the head of the stairs.

"Yes?" she asked.

There was, for a wonder on those stairs meant for one household, but occupied by four, complete silence. There was no one there when she reached the street floor. Only the package, large, but not too large to carry up even if it was heavy, which it was. It was wrapped in a glazed maroon paper of a curious texture, bearing no name or address.

Half an hour later, she went to the telephone to call Ronny. He was a young man who looked like all the college ads, cleft chin, curly hair—everything. Actually, he was not a college ad, but rather an advertising ad, though at the moment of Angela's call, he was dressed in underpants, shirt, and socks, and a long four-in-hand tie. He was on his way to an advertising dinner.

"Ronny?"

"Hullo, Angie."

"You must come over. Quick."

"But I have a dinner. *Tomorrow's* our night."

"I need your help."

"Sure, Angie, but what for?"

"I want you to pick up Mr. Ezegiel at Drieber's."

"The jewelry place?"

"Yes. Mr. Silas Ezegiel. Drieber's at 33 Jefferson Street." He wrote it down. "O.K. But why *me?*"

Ronny boosted his tie irritably into place. He was sitting side-saddle on the arm of rather a thin easy-chair, and he was in a hurry.

"I just want you to pick him up, that's all."

"It'll be after hours," Ronny said impatiently.

"That's why."

"What's the hurry?"

"You'll see."

"Supposing I hadn't been able to come?" he said. He cradled the phone and clipped his tie, and went into the other room for his pants. Did Angela understand that he really wanted to be with her all the time, but that at the dinner, already, due to this call, he would have to be more than a half-hour late?

Once on the street he passed a strange little man hurrying by with what appeared to be an old fashioned doctor's bag in his right hand. Ronny nearly bumped into him, but the little man did not look up, but merely ducked aside as if it were only to be expected that clumsy louts in flapping overcoats should lurch out of dark doorways just as he were passing. The little man had seemingly not even bothered to zip up the bag. Ronny might have grabbed him if he could have known that the little man—called Mesir, presumably for want of a more undistinguished name—had just come from Number 64 Street of the Willow, on the orders of the Great Shah.

Mesir had a beard gathered under his chin in a veil as befits a small "o" orthodox sikh, and a derby hat—as does not. His overcoat was black with velvet reveres, but only in India (or under ultra-violet light) would anyone have known it was brocade. He was used to nocturnal errands and to him the means had become so much the end that he no longer questioned them. Older civilizations than this one had used him, and no doubt younger ones would.

Number 64 Willow Street was an ordinary address, and the girl in it, no doubt, an ordinary girl. The Great Shah had said "The 64th house on the Street of the Willow. The girl of the almond eyes." Mesir knew many girls with almond eyes, but he had rung the topmost bell. Only that would open the door of the goddess if only because the Great Shah had picked out the name from a list of the customers of the Great Store. Mesir had almost not left the bag when he saw all those names over the one knob. Before the Great War the customers of the Great Store did not live like this. This girl was a nurse in the hospital. The hospital was a great white building with columns on the Street of Vice. The Great Store was Drieber's.

Mesir turned down the street along the city common to the Street of Vice. It was not what these respectable people called it —they called it Jefferson Street—but it was where they went in search, and it was where they continued to pass even if they were only passing. Mesir was not in search of vice, or even just passing; it was only that he knew better than to leave those parts of the city where he was best known for those parts of the city where he would be most noticed.

On the Street of Vice there were many girls with almond eyes, but the errands Mesir had to attend to along the street were not with them. First, he stopped into the Pantheon Theatre and as representative of International Pictures sold the manager, amongst a year's worth of harmless features, a movie made in the new stream-of-consciousness school which equated the lighting of a cigarette, the murder of a baby, the quadrangular affairs of three men and a girl, and mother love.

Then, as the travelling partner of the Subterranean Art Gallery, he sat in judgment on a pile of paintings to be hung in the Public Gardens in the annual spring exhibit. He pressed a green button for accept. A yellow one for hold; a red one for reject. There were only three good paintings. They all got the red button. They were representational.

Then, as Sunday contributor for the *Courier,* he stopped into the editorial offices of that paper and wrote two articles under two

different names, one attacking what he had done, the other defending it. He signed them with the names of two different sexes. Some of the other names on the leading articles of the paper were his too. They dealt with Capital Punishment, Pro and Con, and with Religion and Power—The Church versus the State.

Mesir did many other things and signed many other things in the course of his walk to which most people would not have admitted there was more than one side. He did them concentratedly, discreetly and humbly.

Then, calling it a day, he went into a night-spot that said, "Buddy de Frost and his Sexy Tettes," on a lavender neon sign over the door. It was a place where the sailors went, and Mesir loved sailors. He liked to see their candy being taken away from them. It gave him an actual physical pleasure which, at his age was, almost as dangerous as taking it away himself.

These braying sounds, these donkey faces, the swaying bellies, the stink of bad liquor and smoke, were all familiar to him. Something rich in his appearance in these surroundings entitled him to a lonely table to which, eventually, came a naked girl. She had on nothing but beads and lipstick, and there were under her almond eyes and about her mouth the lines of performance and of promise. Mesir put his hand over hers as she sat down opposite him, and she humped hers up inside it, then slowly withdrew it.

"What will you have tonight, little toad?" she said, her voice loud but impersonal.

Mesir made no motion to shush her or to answer her. It wasn't necessary. A glass shattered on the wall next to him. He moved to the chair beside her, and the curly headed sailor who had thrown the glass came over and started to pick up the pieces.

"Tough day at the hospital, baby?" the sailor said.

"What do you mean?"

He pointed to Mesir. "That the best you could do, baby?" he said.

"You've got me mixed up with somebody else, sailor," she said.

"I'll see you after the show.

"No."

"Why not?"

"I ain't giving out nothing."

"You so different now, baby? You look the same to me. I'd know those arms anywhere." The sailor was standing up now, though uncertainly. Mesir glanced from one to the other. He was beginning to enjoy himself. "You look the same as a nurse I know that lives on Willow Street," the sailor said.

There are only two kinds of brilliancy in the world, the real and the false, but there is only one kind of coincidence. It was broken glass of a sort that Mr. Ezegiel was looking at through his

loupe at 64 Willow Street, and Mr. Ezegiel was saying: "There isn't any reason these should have been dumped on you any more than that I should have been the one you called to examine them."

"But you did mother's engagement ring when it came apart. And my gold bracelet—and Ethel's bar-pin that you re-set . . ." Angela's voice was excited, but not convinced. Mr. Ezegiel was a thin, tufted man, with a straight mouth and thick glasses. His complexion was ivory, very faintly lined. There was no hair on his hands.

"But how did that happen?" he said, turning the ring over in his hands and looking at the back of the stone through the setting.

"Well, even a name in the classified has a reason," Angela said. Ronny sat on the sofa where her coat still lay discarded. She had resumed her shoes. Tea had been put away.

Mr. Ezegiel didn't answer. He put down the jewel he had in his hand and picked up another. There were twenty diamonds spread on the table where there had only been a teacup half an hour before. There was also a crown of jewels, loosely jointed, and with ties at the back of tiny gold links. It was tumbled on the table in a dazzle of formlessness. These things had all come out of an ordinary cardboard shoe-box, whose extraordinary red paper lay almost undisturbed beside it. It was as if the box, and the jewels, were in some way the wrapping for the wrapping.

"I know where to advertise these things," he said, "if that's what you want, but I doubt if anyone claims them."

"Why not?" Ronny said.

Mr. Ezegiel swiveled to look at him. He took off his loupe with the hand that still held the jewel.

"See for yourself," he said.

Ronny took the stone and the glass. He screwed the glass awkwardly into his eye. There was a long silence.

"What is it?" he said at last. His voice, ordinarily rather high, had gone down almost an octave as if all the voltage had gone out of it.

"It's a ring," Angela said.

Mr. Ezegiel turned back and picked up the jointed crown, and dropped it again. "They are a set," he said.

"Even with ten fingers there are still ten rings left over," Angela said.

"Not with two pairs of arms," Ronny said.

"What do you mean?" the girl said.

"She has four arms," Ronny said.

"Let me see it," Angela said. She took the ring from Ronny. "It's a picture," she said.

"It's a reflection," Mr. Ezegiel said.

"But how can that be?" Angela

protested. "There's nothing to reflect."

The face of Mr. Ezegiel assumed an expression more weary, and more wary, than before. "Not here, maybe," he said.

"Is she wearing the jewels?" Ronny said.

"Not if it's a reflection," Mr. Ezegiel said, picking up another ring.

"It's too small to tell," Angela said.

"Was she robbed?" asked Ronny.

"I have never seen these jewels before," Mr. Ezegiel said coldlv.

"But you recognized them," Ronny pointed out.

Slowly Mr. Ezegiel put down what he was holding. It made a series of rich bumps as it gradually settled from his hands to the table. "Are you people going to marry?" he asked finally.

"What's that got to do with anything?" Ronny asked.

Mr. Ezegiel ignored the tone.

"How did you know?" Mr. Ezegiel said. "How did you fall in love?"

Angela and Ronny were looking in each other's eyes at each other. Slowly they blushed.

"Coincidence," Angela said. "I have only one pair of arms."

Mr. Ezegiel looked at her long and coldly. "You have four."

It wasn't until then that they recognized the atmosphere in the room.

"You can put the jewels in your safe," Angela said.

"They're yours," Mr. Ezegiel said.

"How come they're hers," Ronny asked.

"They're here."

"They can't stay here," Angela said.

"If you wish them to be only broken glass," Mr. Ezegiel said, "then they will be only broken glass."

But there was an air of menace in his dry voice that warned them that a real choice was being offered.

"But I'm not an idol," Angela said, "I'm only an ordinary girl."

"Idols were common enough in those days," Mr. Ezegiel said, "and they were richer than people."

"Won't the priests be after the jewels?" Ronny said, "the monks, or whatever they are?"

"If they do come after the diadem, it will be a distance of over four thousand years," Mr. Ezegiel said. "Before the Flood."

The other two said nothing at this, just stared at him. A church clock struck somewhere seven times.

"Was the Flood a coincidence?" Angela said.

"Floods come when nothing stands in the way of water," Mr. Ezegiel said.

"After rain," Angela said.

"Rains come from the flood."

"After wind," Angela said.

"Winds come . . ." Mr. Ezegiel began.

"Oh for chrisesakes," Ronny said.

Mr. Ezegiel got up. "I was going to say after destruction," he said.

"Destruction in the desert?"

"Evidently. Since it is a desert."

"How much for the lot?" Ronny said.

"There isn't money enough in the world to buy these things," Mr. Ezegiel said.

"Then we can't sell them?"

"I didn't say that."

"I've got to go," Ronny said, "I'm already an hour late for my dinner."

Angela could only briefly tear herself away from the ring she was holding and she did so now.

"So go sell," Angela said.

"What do you sell?" Mr. Ezegiel asked Ronny.

"Himself," Angela said.

"You don't understand," Ronny said angrily, "that I really want to be with you all the time, but that if people are to be sold I myself, from time to time, will have to be."

Mr. Ezegiel took the ring from her hand and put it on her finger, "Put on the others," he said.

"I know a girl who looks just like you," said Ronny, advancing towards her menacingly, "only she doesn't wear as many clothes."

"I know her too," Angela said.

"You *do*?" Ronny was half angry and half incredulous.

"We treated her once in the Clinic." Angela was putting the rings on her fingers as she spoke. "We treated you too," she said.

"Me?" Ronny was totally incredulous now.

"When you were in the Navy," Angela said, reaching for the crown. "It was when I first saw you, but I don't blame you for not remembering."

The crown was now upon Angela's head.

"You're crazy," Ronny said.

Mr. Ezegiel had gotten down on his knees and was touching his forehead to the floor.

"Great Queen," he was saying, "most potent Goddess, Daughter of Kali, intractible destroyer, Goddess of Evil, Great Mother whose vengeance is complete . . . Even now in another part of the city a naked girl with lines under her eyes and around her mouth is taking off the beads she is wearing and hanging them around the neck of a man called, for want of anything less distinguished, Mesir. A curly-headed sailor grabs for them, but his hand falls where she has taken them off."

"Who are you?" Ronny demanded, standing over the prostrate figure of the jeweler. "What are you doing on the floor?" He turned to Angela, "Angela . . . Angela," he said. He tried to go on

but as he looked at her his mouth dropped open hideously. He stepped backwards, almost falling against he table.

"He is the Great Shah," Angela said, and then taking a ring—his engagement ring—off a finger which had two rings on it, she reached towards her worshipper. "Wear this, little toad," she said, "he thinks I'm a girl on Willow Street."

But Ronny was staring at her arms, two of which grew normally at her shoulders and were clothed as she was clothed, and the other two of which were the naked arms of a girl he knew.

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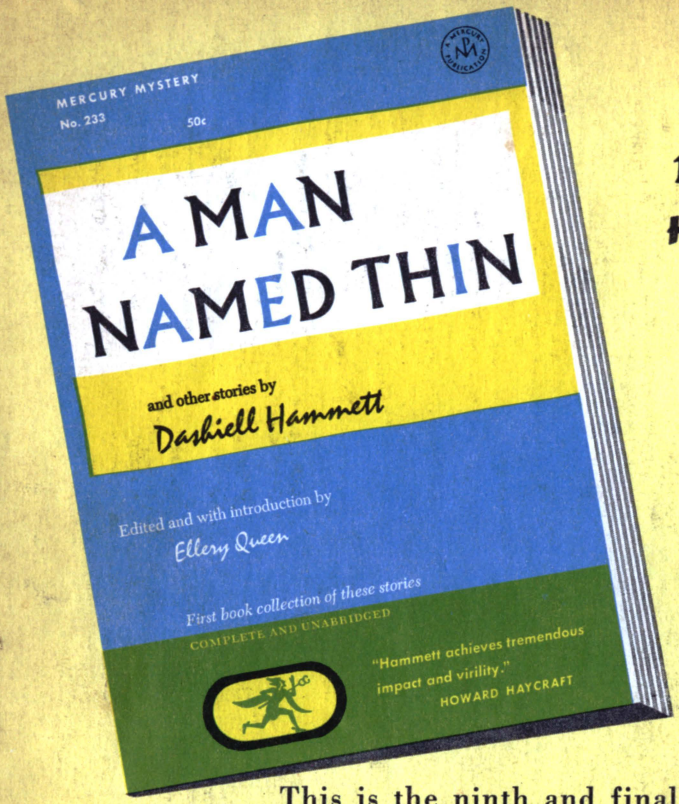

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