

ASTORING BEG. U. B. PAT. OFF.

Science - fiction

MAY 1945

25 CENTS

FIRST CONTACT

BY MURRAY LEINSTER



# The button they sewed on Tom's shirt 9 times



GIVE NOW\_ GIVE MORE

You know Tom, although perhaps you call him by another name. A shy, quiet boy who has suddenly become a man in the midst of war. Until he went into the Army Tom had never been away from home. But now he's three thousand miles from Mom and Dad . . and a boy can become mighty louely, even in an army of millions.

But here in the jungle, as though by some miracle, a Red Cross club has been established. And inside are girls . . . smiling, wholesome American girls who speak your language and are so much like sis . . . or the girl next door.

Tom knows that among a score of heart-warming jobs these Red Cross girls perform is the simple, homey act of helping a GI sew on buttons. So Tom has torn a button from his shirt and a Red Cross girl is sewing it on. And a little later Tom will tear off that same button again. In all (and this is an actual case), that button was sewed on a total of nine times.

The girls know, and smile indulgently. A little thing, yes, but such little, friendly services can give a big lift to the spirits of a lonely service man far away from home.

This is the only appeal the Red Cross will make to you this year. How much pain and suffering and loneliness the Red Cross will alleviate depends on you. For the Red Cross is entirely dependent upon your contributions. The task is greater today than ever. Won't you give as much as you can in this great humanitarian cause?

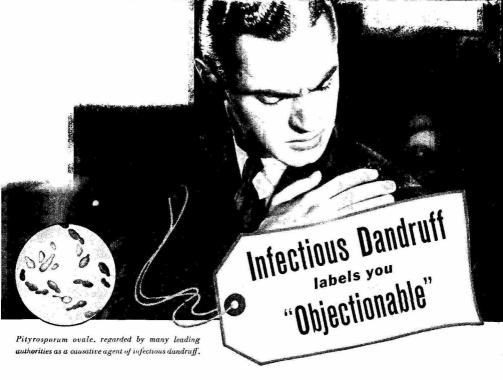
Keep your

**RED CROSS** 

at his side

STREET & SMITH PUBLICATIONS, INC.

Prepared by the War Advertising Council in cooperation with the Office of War Information and the American Red Cross



## Better do something about it now!

THOSE embarrassing flakes, those distressing scales, are a black mark against you . . . can stamp you as an objectionable person. Moreover, they're a warning that if you don't do something about the condition at once you may be in for a case of infectious dandruff.

Better Start Now

Why let infectious dandruff threaten the health of your scalp? Why not get started at once with an easy, delightful, tested treatment that has helped so many and may help you...a treatment that doesn't fool but gets after the germs accompanying the infection.

Just douse full strength Listerine Antiseptic on scalp and hair and follow with vigorous rotary, finger-tip massage for several minutes.

Combined with your regular hair-washing this acts as a precaution against infection. And, if the infection has got the jump on you, the treatment should be stepped up to morning and night frequency. How Listerine Antiseptic Works

Listerine Antiseptic kills the "bottle bacillus" by millions, that stubborn, ugly little customer that many dermatologists say is a causative agency in this type of dandruff.

Used regularly, Listerine Antiseptic helps to get rid of those distressing flakes and troublesome scales and alleviates that bothersome itching so many sufferers complain about.

And, at the same time, it imparts a wonderful sense of freshness and exhilaration. Your scalp glows and tingles. Your hair feels delightfully fresh.

In clinical tests, Listerine Antiseptic, used twice daily, brought marked improvement within a month to 76% of the dandruff sufferers. Listerine Antiseptic is the same antiseptic that has been famous for more than 60 years in the field of oral hygiene.

LAMBERT PHARMACAL Co., St. Louis, Mo.

### LISTERINE ANTISEPTIC the Tested Treatment



# ASTOUNDING FICTION

Rog. W. S. Pat. 4E.

#### CONTENTS

MAY. 1945

VOL. XXXV. NO. 3

#### NOVELETTES

FIRS	T	CON	TAC	T,	by .	Mu	rray	Le	ins	ter	•	•	•	7
THE	FI	XER	, by	We	sley	L	ong		,		•	•	×	68
THE														
			management and agree	oc. Manustration	onventor to a									

#### SHORT STORIES

THE	TRAP, by F	rank Belk	nap Long	9		٠		36
THE	ONE-EYED	MAN, b	y Philip	St.	John			28

#### ARTICLES.

٧ -	2-RO	CK	ET	CARG	ł O	SHI	P, by	Willy	Ley	•	99
17	ISN'	r s	O E	ASY,	by	J, J.	Coup	ling .			124

#### READERS' DEPARTMENTS

тн	E	E	D	IT	0	R	S	$\mathbf{P} A$	G	E						•			
TH	E	A	N A	L	Y	r	IC	AL	L	A	В	OR	A	TOR	Y	•	•	٠	3
IN	T	IM	E	S	T	0	C	O M	E			•	٠.			•	٠	٠	6'
BR	AS	S	T	A	CI	3	3								٠	٠			133

#### COVER BY TIMMINS

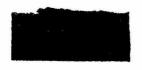
Illustrations by Kramer, Orban and Williams

The editorial contents have not been published before, are protected by copyright and cannot be reprinted without publisher's permission. All stories in this magazine are fictiou. No actual persons are designated by name or character. Any similarity is coincidental.

Monthly publication issued by Street & Smith Publicatious, Incorporated, 122 East 42nd Street, New York 17, N. Y. Allen L. Grammer, President; Gerald H. Smith, Vice President and Treasurer: Henry W. Ralston, Vice President and Secretary. Copyright, 1945, in U. S. A. and Great British by Street & Smith Publicatious, Inc. Heentered as Second-class Matter, February 7, 1938, at the Post Office at New York under Act of Congress of March 3, 1879. Subscriptions to Countries in Fan American Union, \$2.75 per year; elsewhere, \$3.25 per year. We cannot accept responsibility for unsolicited manuscripts or artwork. Any material submitted must include return postage.

\$2.50 per Year is U.S. A. Printed in the U.S. A. 25e per Cony

Editor JOHN W. CAMPBELL, JR.



# Rockets and Bankruptcy

The Nazis have earned one honor that, bitterly though we do and will resent it, we cannot take from them: they were the first to build a ship capable of leaving Earth's atmosphere behind. As Willy Ley points out in his article, V-2, stripped of the twenty-two hundred pound warhead, equipped with an extra twentytwo hundred pounds of fuel and observer plus instruments, could leave-and, incidentally, may have left Earth. The Nazis have, therefore, won two places in history: they earned full-fold the right to the title of Most Brutal Gang in Centuries-and the title of First Rocketeers of History.

Why should they have done so, rather than Americans, English, Russians, or some other allied nationality? Particularly Americans, who are, unquestionably, the world's top gadget lovers.

Largely, I believe, because the rocket bomb is a weapon of bank-ruptcy and desperation. The man who has a good, sound, reliable, going business looks for more good, sound possibilities and developments—new products and processes that offer possibility of long-time, steady and reliable returns. He'll be more conservative, because he has time to work things out right, before

plunging into it; he's not desperate for sudden success. The man just starting, not yet successful, can afford to, and must, take risks the already successful man will not. The man who is already teetering on the crumbling edge of bankruptcy will, in desperation, attempt wild feats in hopes, and in the belief that it can't be worse.

We don't ship carload lots of coal by air express; it doesn't play, except in the most special circumstances. Bombs can be shipped by airplane—that does pay off. It's expensive, expensive in treasure and in human lives. But the damage inflicted on the enemy is greater, because the planes come back better than nine times out of ten, and the bombs go where they have an excellent chance of doing real damage.

A bomber costs somewhere between one hundred thousand and seven hundred fifty thousand dollars, depending on type. How much a V-2 rocket costs, we don't know—but an ordinary Naval torpedo costs about ten thousand dollars, when made under the best, most economical conditions. The condition of German factories at present—thanks to airplanes—can be classed neither as "best" nor "most economical." The completed V-2

must cost enough to run a fighter plane a stiff race.

In this country, where grain foods are almost unlimited in availability, and petroleum products are completely unlimited-so far as war demands go-there is an acute shortage of alcohol for the essential warindustrial uses. V-2 uses alcohol fuel. Liquid oxygen required by V-2 is expensive to produce. It is well understood now that a nation at war doesn't go financially bankrupt: the government passes laws, rigs the books, or issues decrees, so expense in terms of reichmarks doesn't matter. But those reichmarks are, essentially, a measure of human effort invested in the production of that product-instead of some other product. Liquid oxygen production requires power, either electrical or coal-German cities freezing and dark-heavy. elaborate pumping machinerybombed water systems must be repaired-compressed air is one of the most important industrial tools these days, particularly in decentralized factories-and skilled engineers. (Synthetic gasoline plants, synthetic nitrate plants, and chemical plants of all types require skilled high-pressure pump engineers-particularly when so many pumps, and engineers, have been damaged.)

The V-2 is a terribly expensive weapon. It's inefficient since its aim is enormously less exact than bombing planes. And it arrives so rapidly, it is less efficient; it buries its charge. It was terribly expensive, too, in its creation. Willy Ley

tells something of the history of Peenemünde; the cost accounting sheets we can't, of course, investigate just now. But thousands of desperately needed technicians, skilled tool makers, machinists, and scientists were involved in that effort.

The Nazis have a successful rocket bomb worked out-successful only in the sense that it will fly to enormous altitude, and for a reasonable range. (Even the smallest fighters outrange it, of course, and can carry heavier loads.) As a scientific-technological achievement we must admit it as a genuine, Grade A triumph. As a military weapon, it can be considered only as the weapon of a policy bankrupt morally, financially, and militarily, a weapon only of ultimate desperation. Its air power of a sort, but as far removed from truly efficient air power, and from the proper purpose of air power, as is a rifle which a soldier, finding his ammunition gone, uses as a club. No one will suggest that a clubbed rifle isn't an extremely dangerous weapon, that its wounds aren't painful. But it is a weapon of bankruptcy.

So today is the rocket cargo carrier. That further development will make it an economic success—both peacetime, and, unfortunately, wartime as well—is undoubtedly true. But the pressure of time—and the Titanic power of three great, smoothly efficient nations—make it impossible for the Nazis to advance it beyond the present stage.

THE EDITOR.



I

Tommy Dort went into the captain's room with his last pair of stereophotos and said:

"I'm through, sir. These are the last two pictures I can take."

He handed over the photographs

and looked with professional interest at the visiplates which showed all space outside the ship. Subdued, deep-red lighting indicated the controls and such instruments as the quartermaster on duty needed for navigation of the spaceship Llanvabon. There was a deeply

cushioned control chair. There was the little gadget of oddly angled mirrors—remote descendant of the back-view mirrors of twentieth century motorists—which allowed a view of all the visiplates without turning the head. And there were the huge plates which were so much more satisfactory for a direct view of space.

The Llanvabon was a long way from home. The plates which showed every star of visual magnitude and could be stepped up to any desired magnification, portrayed stars of every imaginable degree of brilliance, in the startlingly different colors they show outside of atmosphere. But every one was unfamiliar. Only two constellations could be recognized as seen from Earth, and they were shrunken and distorted. The Milky Way seemed vaguely out of place. But even such oddities were minor compared to a sight in the forward

There was a vast, vast mistiness ahead. A luminous mist. seemed motionless. It took a long time for any appreciable nearing to appear in the vision plates, though the spaceship's velocity indicator showed an incredible speed. mist was the Crab Nebula, six lightyears long, three and a half light-years thick, with outwardreaching members that in the telescopes of Earth gave it some resemblance to the creature for which it was named. It was a cloud of gas, infinitely tenuous, reaching half again as far as from Sol to its nearest neighbor-sun. Deep within it burned two stars; a double star; one component the familiar yellow of the sun of Earth, the other an unholy white.

Tommy Dort said meditatively:
"We're heading into a deep,
sir?"

The skipper studied the last two plates of Tommy's taking, and put them aside. He went back to his uneasy contemplation of the vision plates ahead. The *Llanvabon* was decellerating at full force. She was a bare half light-year from the nebula. Tommy's work was guiding the ship's course, now, but the work was done. During all the stay of the exploring ship in the nebula, Tommy Dort would loaf. But he'd more than paid his way so far.

He had just completed a quite unique first-a complete photographic record of the movement of a neubla during a period of four thousand years, taken by one individual with the same apparatus and with control exposures to detect and record any systematic errors. was an achievement in itself worth the journey from Earth. But in addition, he had also recorded four thousand years of the history of a double star, and four thousand years of the history of a star in the act of degenerating into a white dwarf.

It was not that Tommy Dort was four thousand years old. He was, actually, in his twenties. But the Crab Nebula is four thousand light-years from Earth, and the last two pictures had been taken by light which would not reach Earth until the sixth millennium A. D. On the

way here—at speeds incredible multiples of the speed of light—Tommy Dort had recorded each aspect of the neubla by the light which had left it from forty centuries since to a bare six months ago.

The Llanvabon bored on through space. Slowly, slowly, slowly, the incredible luminosity crept across the vision plates. It blotted out half the universe from view. Before was glowing mist, and behind was a star-studded emptiness. The mist shut off three-fourths of all the stars. Some few of the brightest shone dimly through it near its edge. but only a few. Then there was only an irregularly shaped patch of darkness astern against which stars shone unwinking. The Llanvabon dived into the nebula, and it seemed as if it bored into a tunnel of darkness with walls of shining fog.

Which was exactly what the spaceship was doing. The most distant photographs of all had disclosed structural features in the nebula. It was not amorphous. had form. As the Llanvabon drew nearer, indications of structure grew more distinct, and Tommy Dort had argued for a curved approach for photographic reasons. So the spaceship had come up to the nebula on a vast logarithmic curve, and Tommy had been able to take successive photographs from slightly different angles and get stereopairs which showed the nebula in three dimensions; which disclosed billowings and hollows and an actually complicated shape. In places, the

nebula displayed convolutions like those of a human brain. It was into one of those hollows that the spaceship now plunged. They had been called "deeps" by analogy with crevasses in the ocean floor. And they promised to be useful.

The skipper relaxed. One of a skipper's functions, nowadays, is to think of things to worry about, and then worry about them. The skipper of the *Llanvabon* was conscientious. Only after a certain instrument remained definitely nonregistering did he ease himself back in his seat.

"It was just barely possible," he said heavily, "that those deeps might be nonluminous gas. But they're empty. So we'll be able to use over-drive as long as we're in them."

It was a light-year-and-a-half from the edge of the nebula to the neighborhood of the double star which was its heart. That was the problem. A nebula is a gas. It is so thin that a comet's tail is solid by comparison, but a ship traveling on overdrive—above the speed of light—does not want to hit even a merely hard vacuum. It needs pure emptiness, such as exists between the stars. But the *Llanvabon* could not do much in this expanse of mist if it was limited to speeds a merely hard vacuum will permit.

The luminosity seemed to close in behind the spaceship, which slowed and slowed and slowed. The overdrive went off with the sudden pinging sensation which goes all over a person when the overdrive field is released.

Then, almost instantly, bells burst

into clanging, strident uproar all through the ship. Tommy was almost deafened by the alarm bell which rang in the captain's room before the quartermaster shut it off with a flip of his hand. But other bells could be heard ringing throughout the rest of the ship, to be cut off as automatic doors closed one by one.

Tommy Dort stared at the skipper. The skipper's hands clenched. He was up and staring over the quartermaster's shoulder. One indicator was apparently having convulsions. Others strained to record their findings. A spot on the diffusedly bright mistiness of a bowquartering visiplate grew brighter as the automatic scanner focused on it. That was the direction of the object which had sounded collision-alarm. But the object locator itself-. According to its reading, there was one solid object some eighty thousand miles away-an object of no great size. But there was another object whose distance varied from extreme range to zero, and whose size shared its impossible advance and retreat.

"Step up the scanner," snapped the skipper.

The extra-bright spot on the scanner rolled outward, obliterating the undifferentiated image behind it. Magnification increased. But nothing appeared. Absolutely nothing. Yet the radio locator insisted that something monstrous and invisible made lunatic dashes toward the *Llanvabon*, at speeds which inevitably implied collision, and then fled coyly away at the same rate.

The visiplate went up to maximum magnification. Still nothing. The skipper ground his teeth. Tommy Dort said meditatively:

"D'you know, sir, I saw somethink like this on a liner on the Earth-Mars run once, when we were being located by another ship. Their locator beam was the same frequency as ours, and every time it hit, it registered like something monstrous, and solid."

"That," said the skipper savagely, "is just what's happening now. There's something like a locator beam on us. We're getting that beam and our own echo besides. But the other ship's invisible! Who is out here in an invisible ship with locator devices? Not men, certainly!"

He pressed the button in his sleeve communicator and snapped:

"Action stations! Man all weapons! Condition of extreme alert in all departments immediately!"

His hands closed and unclosed. He stared again at the visiplate which showed nothing but a formless brightness.

"Not men?" Tommy Dort straightened sharply. "You mean—"

"How many solar systems in our galaxy?" demanded the skipper bitterly. "How many planets fit for life? And how many kinds of life could there be? If this ship isn't from Earth—and it isn't—it has a crew that isn't human. And things that aren't human but are up to the level of deep-space travel in their civilization could mean anything!"

The skipper's hands were actually shaking. He would not have talked so freely before a member of his own crew, but Tommy Dort was of the observation staff. And even a skipper whose duties include worrying may sometimes need desperately to unload his worries. Sometimes, too, it helps to think aloud.

"Something like this has been talked about and speculated about for years," he said softly. "Mathematically, it's been an odds-on bet that somewhere in our galaxy there'd be another race with a civilization equal to or further advanced than ours. Nobody could ever guess where or when we'd meet them. But it looks like we've done it now!"

Tommy's eyes were very bright. "D'you suppose they'll be friend-ly, sir?"

The skipper glanced at the distance indicator. The phantom object still made its insane, nonexistent swoops toward and away from the *Llanvabon*. The secondary indication of an object at eighty thousand miles stirred ever so slightly.

"It's moving," he said curtly. "Heading for us. Just what we'd do if a strange spaceship appeared in our hunting grounds! Friendly? Maybe! We're going to try to contact them. We have to. But I suspect this is the end of this expedidition. Thank God for the blasters!"

The blasters are those beams of ravening destruction which take care of recalcitrant meteorites in a spaceship's course when the deflectors can't handle them. They are not designed as weapons, but they can serve as pretty good ones. They

can go into action at five thousand miles, and draw on the entire power output of a whole ship. With automatic aim and a traverse of five degrees, a ship like the *Llanvabon* can come very close to blasting a hole through a small-sized asteroid which gets in its way. But not on over-drive, of course.

Tommy Dort had approcahed the bow-quartering visiplate. Now he ierked his head around.

"Blaster's sir?" What for?"

The skipper grimaced at the empty visiplate.

"Because we don't know what they're like and can't take a chance! I know!" he added bitterly. "We're going to make contacts and try to find out all we can about themespecially where they come from. I suppose we'll try to make friendsbut we haven't much chance. We can't trust them the fraction of an inch. We daren't! They've locators. Maybe they've tracers better than any we have. Maybe they could trace us all the way home without our knowing it! We can't risk a nonhuman race knowing where Earth is unless we're sure of them! And how can we be sure? They could come to trade, of course -or they could swoop down on overdrive with a battle fleet that could wipe us out before we knew. what happened. We wouldn't know which to expect, or when!"

Tommy's face was startled.

"It's all been thrashed out over and over, in theory," said the skipper. "Nobody's ever been able to find a sound answer, even on paper.

But you know, in all their theorizing, no one considered the crazy, rank impossibility of a deep-space contact, with neither side knowing the other's home world! But we've got to find an answer in fact! What are we going to do about them? Maybe these creatures will be aesthetic marvels, nice and friendly and polite-and underneath with the sneaking brutal ferocity of a Japanese. Or maybe they'll be crude and gruff as a Swedish farmerand just as decent underneath. Maybe they're something in between. But am I going to risk the possible future of the human race on a guess that it's safe to trust them? God knows it would be worth while to make friends with a new civilization! It would be bound to stimulate our own, and maybe we'd gain enormously. But I can't take chances. The one thing I won't risk is having them know how to find Earth! Either I know they can't follow me, or I don't go home! And they'll probably feel the same way!"

He pressed the sleeve-communicator button again.

"Navigation officers, attention! Every star map on this ship is to be prepared for instant destruction. This includes photographs and diagrams from which our course or starting point could be deduced. want all astronomical data gathered and arranged to be destroyed in a split second, on order. Make it fast and report when ready!"

He released the button. He looked suddenly old. The first contact of humanity with an alien race was a

situation which had been foreseen in many fashions, but never one quite so hopeless of solution as this. A solitary Earth-ship and a solitary alien, meeting in a nebula which must be remote from the home planet of each. They might wish peace, but the line of conduct which best prepared a treacherous attack was just the seeming of friendliness. Failure to be suspicious might doom the human race,-and a peaceful exchange of the fruits of civilization would be the greatest benefit imaginable. Any mistake would be irreparable, but a failure to be on guard would be fatal.

The captain's room was very, very quiet. The bow-quartering visiplate was filled with the image of a very small section of the nebula. A very small section indeed. It was all diffused, featureless, luminous mist. But suddenly Tommy Dort pointed.

"There, sir!"

There was a small shape in the mist. It was far away. It was a black shape, not polished to mirrorreflection like the hull of the Llanvabon. It was bulbous-roughly pearshaped. There was much thin luminosity between, and no details could be observed, but it was surely no object. natural Then looked at the distance indicator and said quietly:

"It's headed for us at very high accelleration, sir. The odds are that they're thinking the same thing, sir, that neither of us will dare let the other go home. Do you think they'll try a contact with us, or let loose with their weapons as soon as

they're in range?"

The Llanvabon was no longer in a crevasse of emptiness in the nebulas' thin substance. She swam in luminescence. There were no stars save the two fierce glows in the nebula's heart. There was nothing but an all-enveloping light, curiously like one's imagining of underwater in the tropics of Earth.

The alien ship had made one sign of less than lethal intention. As it drew near the Llanvabon, it decelerated. The Llanvabon itself had advanced for a meeting and then come to a dead stop. Its movement had been a recognition of the nearness of the other ship. Its pausing was both a friendly sign and a precaution against attack. Relatively still, it could swivel on its own axis to present the least target to a slashing assault, and it would have a longer firing-time than if the two ships flashed past each other at their combined speeds.

The moment of actual approach, however, was tenseness itself. The Llanvabon's needle - pointed aimed unwaveringly at the alien bulk. A relay to the captain's room put a key under his hand which would fire the blasters with maximum power. Tommy Dort watched, his brow wrinkled. The aliens must be of a high degree of civilization if they had spaceships, and civilization does not develop without the development of foresight. aliens must recognize all the implications of this first contact of two civilized races as fully as did the humans on the Llanvabon.

The possibility of an enormous spurt in the development of both,

by peaceful contact and exchange of their separate technologies, would probably appeal to them as to the man. But when dissimilar human cultures are in contact, one must usually be subordinate or there is But subordination between races arising on separate planets could not be peacefully arranged. Men, at least, would never consent to subordination, nor was it likely any highly-developed would agree. The benefits to be derived from commerce could never make up for a condition of inferiority. Some races-men, perhapswould prefer commerce to conquest. Perhaps - perhaps! - these aliens would also. But some types even of human beings would have craved red war. If the alien ship now approaching the Llanvabon returned to its home base with news of humanity's existence and of ships like the Llanvabon, it would give its race the choice of trade or battle. might want trade, or they might want war. But it takes two to make trade, and only one to make war. They could not be sure of men's peacefulness, nor could men be sure of theirs. The only safety for either civilization would lie in the destruction of one or both of the two ships here and now.

But even victory would not be really enough. Men would need to know where this alien race was to be found, for avoidance if not for battle. They would need to know its weapons, and its resources, and if it could be a menace and how it could be eliminated in case of need. The aliens would feel the same



necessities concerning humanity.

So the skipper of the *Llanvabon* did not press the key which might possibly have blasted the other ship to nothingness. He dared not. But he dared not not fire either. Sweat came out on his face.

A speaker muttered. Someone from the range room.

"The other ship's stopped, sir. Quite stationary. Blasters are centered on it, sir."

It was an urging to fire. But the skipper shook his head, to himself. The alien ship was no more than twenty miles away. It was deadblack. Every bit of its exterior was an abysmal, nonreflecting sable. No details could be seen except by minor variations in its outline against the misty nebula.

"It's stopped dead sir," said another voice. "They've sent a modulated short wave at us, sir. Frequency modulated. Apparently a signal. Not enough power to do any harm."

The skipper said through tightlocked teeth:

"They're doing something now. There's movement on the outside of their hull. Watch what comes out. Put the auxiliary blasters on it."

Something small and round came smoothly out of the oyal outline of the black ship. The bulbous hulk moved.

"Moving away, sir," said the speaker. "The object they let out is stationary in the place they've left."

Another voice cut in:

"More frequency modulated stuff,

sir. Unintelligible."

Tommy Dort's eyes brightened. The skipper watched the visiplate, with sweat-droplets on his forehead.

"Rather pretty, sir," said Tommy, meditatively. "If they sent anything toward us, it might seem a projectile or a bomb. So they came close, let out a lifeboat, and went away again. They figure we can send a boat or a man to make contact without risking our ship. They must think pretty much as we do."

The skipper said, without moving his eyes from the plate:

"Mr. Dort, would you care to go out and look the thing over? I can't order you, but I need all my operating crew for emergencies. The observation staff—"

"Is expendable. Very well, sir," said Tommy briskly. "I won't take a lifeboat, sir. Just a suit with a drive in it. It's smaller and the arms and legs will look unsuitable for a bomb. I think I should carry a scanner, sir."

The alien ship continued to retreat. Forty, eighty, four hundred miles. It came to a stop and hung there, waiting. Climbing into his atomic-driven spacesuit just within the Llanvabon's air lock, Tominy heard the reports as they went over the speakers throughout the ship. That the other ship had stopped its retreat at four hundred miles was encouraging. It might not have weapons effective at a greater distance than that, and so felt safe. But just as the thought formed itself in his mind, the alien retreated precipitately still farther. Which,

as Tommy reflected as he emerged from the lock, might be because the aliens had realized they were giving themselves away, or might be because they wanted to give the impression that they had done so.

He swooped away from the silvery-mirror *Llanvabon*, through a brightly glowing emptiness which was past any previous experience of the human race. Behind him, the *Llanvabon* swung about and darted away. The skipper's voice came in Tommy's helmet phones.

"We're pulling back, too, Mr. Dort. There is a bare possibility that they've some explosive atomic reaction they can't use from their own ship, but which might be destructive even as far as this. We'll draw back. Keep your scanner on the object."

The reasoning was sound, if not very comforting. An explosive which would destroy anything within twenty miles was theoretically possible, but humans didn't have it yet. It was decidedly safest for the *Llanvabon* to draw back.

But Tommy Dort felt very lonely. He sped through emptiness toward the tiny black speck which hung in incredible brightness. The *Llanvabon* vanished. Its polished hull would merge with the glowing mist at a relatively short distance, anyhow. The alien ship was not visible to the naked eye, either. Tommy swam in nothingness, four thousand light-years from home, toward a tiny black spot which was the only solid object to be seen in all of space.

It was a slightly distorted sphere, not much over six feet in diameter.

It bounced away when Tommy landed on it, feet-first. There were small tentacles, or horns, which projected in every direction. They looked rather like the detonating horns of a submarine mine, but there was a glint of crystal at the tip-end of each.

"I'm here," said Tommy into his helmet phone.

He caught hold of a horn and drew himself to the object. It was all metal, dead-black. He could feel no texture through his space gloves, of course, but he went over and over it, trying to discover its purpose.

"Deadlock, sir," he said presently. "Nothing to report that the scanner hasn't shown you."

Then, through his suit, he felt vibrations. They translated themselves as clankings. A section of the rounded hull of the object opened out. Two sections. He worked his way around to look in and see the first nonhuman civilized beings that any man had ever looked upon.

But what he saw was simply a flat plate on which dim-red glows crawled here and there in seeming aimlessness. His helmet phones emitted a startled exclamation. The skipper's voice:

"Very good, Mr. Dort. Fix your scanner to look into that plate. They dumped out a robot with an infrared visiplate for communication. Not risking any personnel. Whatever we might do would damage only machinery. Maybe they expect us to bring it on board—and it may have a bomb charge that can

be detonated when they're ready to start for home. I'll send a plate to face one of its scanners. You return to the ship."

"Yes, sir," said Tommy. "But which way is the ship, sir?"

There were no stars. The nebula obscured them with its light. The only thing visible from the robot was the double star at the nebula's center. Tommy was no longer oriented. He had but one reference point.

"Head straight away from the double star," came the order in his helmet phone. "We'll pick you up."

He passed another lonely figure, a little later, headed for the alien sphere with a vision plate to set up. The two spaceships, each knowing that it dared not risk its own race by the slightest lack of caution, would communicate with each other through this small round robot. Their separate vision systems would enable them to exchange all the information they dared give, while they debated the most practical way of making sure that their own civilization would not be endangered by this first contact with another. The truly most practical method would be the destruction of the other ship in a swift and deadly attack-in self-defense

#### III.

The Llanvabon, thereafter, was a ship in which there were two separate enterprises on hand at the same time. She had come out from Earth to make close-range observations on the smaller component of the double

star at the nebula's center. nebula itself was the result of the most titanic explosion of which men have any knowledge. The explosion took place some time in the year 2946 B. C., before the first of the seven cities of long-dead Illium was even thought of. The light of that explosion reached Earth in the year 1054 A. D., and was duly recorded in ecclesiastic annals and somewhat more reliably by Chinese court astronomers. It was bright enough to be seen in daylight for twenty-three successive days. Its light-and it was four thousand light-years away -was brighter than that of Venus.

From these facts, astronomers could calculate nine hundred years later the violence of the detonation. Matter blown away from the center of the exposion would have traveled outward at the rate of two million three hundred thousand miles an hour; more than thirty-eight thousand miles a minute; something over six hundred thirty-eight miles per When twentieth-century second. telescopes were turned upon the scene of this vast explosion, only a double star remained-and the nebula. The brighter star of the doublet was almost unique in having so high a surface temperature that it showed no spectrum lines at all. It had a continuous spectrum. Sol's surface temperature is about 7.000° That of the hot white Absolute. star is 500,000 degrees. It has nearly the mass of the sun, but only one fifth its diameter, so that its density is one hundred seventy-three times that of water, sixteen times that of lead, and eight times that of

iridium-the heaviest substance known on earth. But even this density is not that of a dwarf white star like the companion of Sirius. The white star in the Crab Nebula is an incomplete dwarf: it is a star still in the act of collapsing. Examination-including the survey of a four-thousand-year column of its light-was worth while. The Llanvabon had come to make that examination. But the finding of an alien spaceship upon a similar errand had implications which overshadowed the original purpose of the expedition.

A tiny bulbous robot floated in the tenuous nebular gas. The normal operating crew of the *Llanvabon* stood at their posts with a sharp alertness which was productive of tense nerves. The observation staff divided itself, and a part went half-heartedly about the making of the observations for which the *Llanvabon* had come. The other half applied itself to the problem the space-ship offered.

It represented a culture which was up to space travel on an interstellar scale. The explosion of a mere five thousand years since must have blasted every trace of life out of existence in the area now filled by the nebula. So the aliens of the black spaceship came from another solar system. Their trip must have been, like that of the Earth ship, for purely scientific purposes. There was nothing to be extracted from the nebula.

They were, then, at least near the level of human civilization, which meant that they had or could develop arts and articles of commerce which men would want to trade for, in friendship. But they would necessarily realize that the existence and civilization of humanity was a potential menace to their own race. The two races could be friends, but also they could be deadly enemies. Each, even if unwillingly, was a monstrous menace to the other. And the only safe thing to do with a menace is to destroy it.

In the Crab Nebula the problem was acute and immediate. ture relationship of the two races would be settled here and now. a process for friendship could be established, one race, otherwise doomed, would survive and both would benefit immensely. But that process had to be established, and confidence built up, without the most minute risk of danger from treachery. Confidence would need to be established upon a foundation of necessarily complete distrust. Neither dared return to its own base if the other could do harm to its race. Neither dared risk any of the necessities to trust. The only safe thing for either to do was destroy the other or be destroyed.

But even for war, more was needed than mere destruction of the other. With interstellar traffic, the aliens must have atomic power and some form of overdrive for travel above the speed of light. With radio location and visiplates and short-wave communication they had, of course, many other devices. What weapons did they have? How widely extended was their culture?

What were their resources? Could there be a development of trade and friendship, or were the two races so unlike that only war could exist between them? If peace was possible, how could it be begun?

The men on the *Llanvabon* needed facts—and so did the crew of the other ship. They must take back every morsel of information they could. The most important information of all would be of the location of the other civilization, just in case of war. That one bit of information might be the decisive factor in an interstellar war. But other facts would be enormously valuable.

The tragic thing was that there could be no possible information which could lead to peace. Neither ship could stake its own race's existence upon any conviction of the good will or the honor of the other.

So there was a strange truce between the two ships. The alien went about its work of making observations, as did the *Llanvabon*. The tiny robot floated in bright emptiness. A scanner from the *Llanvabon* was focussed upon a vision plate from the alien. A scanner from the alien regarded a vision plate from the *Llanvabon*. Communication began.

It progressed rapidly. Tommy Dort was one of those who made the first progress report. His special task on the expedition was over. He had now been assigned to work on the problem of communication with the alien entities. He went with the ship's solitary psychologist to the captain's room to convey the

news of success. The captain's room, as usual, was a place of silence and dull-red indicator lights and the great bright visiplates on every wall and on the ceiling.

"We've established fairly satisfactory communication, sir." said the psychologist. He looked tired. His work on the trip was supposed to be that of measuring personal factors of error in the observation staff, for the reduction of all observations to the nearest possible decimal to the absolute. He had been pressed into service for which he was not especially fitted, and it told upon him. "That is, we can say almost anything we wish, to them, and can understand what they say in return. But of course we don't know how much of what they say is the truth."

The skipper's eyes turned to Tommy Dort.

"We've hooked up some machin-ery," said Tommy, "that amounts to a mechanical translator. We have vision plates, of course, and then short-wave beams direct. They use frequency-modulation plus what is probably variation in wave formslike our vowel and consonant sounds in speech. We've never had any use for anything like that before, so our coils won't handle it, but we've developed a sort of code which isn't the language of either set of us. They shoot over short-wave stuff with frequency-modulation, and we record it as sound. When we shoot it back, it's reconverted into frequency-modulation."

The skipper said, frowning: "Why wave-form changes in

short waves? How do you know?" "We showed them our recorder in the vision plates, and they showed us theirs. They record the frequency-modulation direct. I think." said Tommy carefully, "they don't use sound at all, even in speech. They've set up a communications room, and we've watched them in the act of communicating with us. They make no perceptible movement of anything that corresponds to a speech organ. Instead of a microphone, they simply stand near something that would work as a pick-up antenna. My guess, sir, is that they use microwaves for what you might call person-to-person conversation. I think they make short-wave trains as we make sounds."

The skipper stared at him:

"That means they have telepathy?"

"M-m-m. Yes, sir," said Tonmy.

"Also it means that we have telepathy too, as far as they are concerned. They're probably deaf. They've certainly no idea of using sound waves in air for communication. They simply don't use noises for any purpose."

The skipper stored the information away.

"What else?"

"Well, sir," said Tommy doubtfully, "I think we're all set. We agreed on arbitrary symbols for objects, sir, by way of the visiplates, and worked out relationships and verbs and so on with diagrams and pictures. We've a couple of thousand words that have mutual meanings. We set up an analyzer to sort

out their short-wave groups, which we feed into a decoding machine. And then the coding end of the machine picks out recordings to make the wave groups we want to send back. When you're ready to talk to the skipper of the other ship, sir, I think we're ready."

"H-m-m. What's your impression of their psychology?" The skipper asked the question of the psychologist.

"I don't know, sir," said the psychologist harassedly. "They seem to be completely direct. But they haven't let slip even a hint of the tenseness we know exists. They act as if they were simply setting up a means of communication for friendly conversation. But there is ... well ... an overtone—"

The psychologist was a good man at psychological mensuration, which is a good and useful field. But he was not equipped to analyze a completely alien thought-pattern.

"If I may say so, sir—" said Tommy uncomfortably.

"What?"

"They're oxygen breathers," said Tommy, "and they're not too dissimilar to us in other ways. It seems to me, sir, that paralled evolution has been at work. Perhaps intelligence evolves in parallel lines, just as . . . well . . . basic bodily functions. I mean," he added conscientiously, "any living being of any sort must ingest, metabolize, and excrete. Perhaps any intelligent brain must perceive, apperceive, and find a personal reaction. I'm sure I've detected irony. That implies

humor, too. In short, sir, I think they could be likable."

The skipper heaved himself to his feet.

"H-m-m." He said profoundly. "We'll see what they have to say."

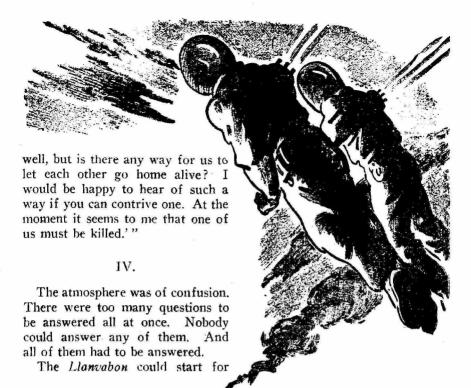
He walked to the communications room. The scanner for the vision plate in the robot was in readiness. The skipper walked in front of it. Tommy Dort sat down at the coding machine and tapped at the keys. Highly improbable noises came from it, went into a microphone, and governed the frequency-modulation of a signal sent through space to the other spaceship. Almost instantly the vision screen which with one relay-in the robot-showed the interior of the other ship lighted up. An alien came before the scanner and seemed to look inquisitively out of the plate. He was extraordinarily manlike, but he was not human. The impression he gave was of extreme baldness and a somehow humorous frankness.

"I'd like to say," said the skipper heavily, "the appropriate things about this first contact of two dissimilar civilized races, and of my hopes that a friendly intercourse between the two peoples will result."

Tommy Dort hesitated. Then he shrugged and tapped expertly upon the coder. More improbable noises.

The alien skipper seemed to receive the message. He made a gesture which was wryly assenting. The decoder on the *Llanvabon* hummed to itself and word-cards dropped into the message frame. Tommy said dispassionately:

"He says, sir, 'That is all very





home. The alien ship might or might not be able to multiply the speed of light by one more unit than the Earth vessel. If it could, the Llanvabon would get close enough to Earth to reveal its destinationand then have to fight. It might or might not win. Even if it did win, the aliens might have a communication system by which the Llanvabon's destination might have been reported to the aliens' home planet before battle was joined. But the Llanvabon might lose in such a fight. If she was to be destroyed, it would be better to be destroyed here, without giving any clue to where human beings might be found by a forewarned, forearmed alien battle fleet.

The black ship was in exactly the same predicament. It too, could start for home. But the *Llanvabon* might be faster, and an overdrive field can be trailed, if you set to work on it soon enough. The aliens, also, would not know whether the *Llanvabon* could report to its home base without returning. If the alien was to be destroyed, it also would prefer to fight it out here, so that it could not lead a probable enemy to its own civilization.

Neither ship, then, could think of flight. The course of the Llanvabon into the nebula might be known to the black ship, but it had been the end of a logarithmic curve, and the aliens could not know its properties. They could not tell from that from what direction the Earth ship had started. As of the moment, then, the two ships were even. But the question was and remained, "What now?"

There was no specific answer. The aliens traded information for information—and did not always realize what information they gave. The humans traded information for information—and Tommy Dort sweated blood in his anxiety not to give any clue to the whereabouts of Earth.

The aliens saw by infrared light, and the vision plates and scanners in the robot communication-exchange had to adapt their respective images up and down an optical octave each, for them to have any meaning at all. It did not occur to

the aliens that their eyesight told that their sun was a red dwarf, yielding light of greatest energy just below the part of the spectrum visible to human eyes. But after that fact was realized on the *Llanvabon*, it was realized that the aliens, also, should be able to deduce the Sun's spectral type by the light to which men's eyes were best adapted.

There was a gadget for the recording of short-wave trains which was so casually in use among the aliens as a sound-recorder is among The humans wanted that. badly. And the aliens were fascinated by the mystery of sound. They were able to perceive noise, of course, just as a man's palm will perceive infrared light by the sensation of heat it produces, but they could no more differentiate pitch or tone-quality than a man is able to distinguish between two frequencies of heat-radiation even half an octave part. To them, the human science of sound was a remarkable discovery. They would find uses for noises which humans had never imagined-if they lived.

But that was another question. Neither ship could leave without first destroying the other. But while the flood of information was in passage, neither ship could afford to destroy the other. There was the matter of the outer coloring of the two ships. The Llanvabon was mirror-bright exteriorly. The alien ship was dead-black by visible light. It absorbed heat to perfection, and should radiate it away again as readily. But it did not. The black coating was not a "black body" color

or lack of color. It was a perfect reflector of certain infrared wave lengths while simultaneously it fluoresced in just those wave bands. In practice, it absorbed the higher frequencies of heat, converted them to lower frequencies it did not radiate—and stayed at the desired temperature even in empty space.

Tommy Dort labored over his task of communications. He found the alien thought-processes not so alien that he could not follow them. The discussion of technics reached the matter of interstellar navigation. A star map was needed to illustrate the process. It would not have been logical to use a star map from the chart room-but from a star map one could guess the point from which the map was projected. Tommy had a map made specially, with imaginary but convincing star images upon it. He translated directions for its use by the coder and decoder. In return, the aliens presented a star map of their own before the visiplate. Copied instantly by photograph, the Nav officers labored over it, trying to figure out from what spot in the galaxy the stars and Milky Way would show at such an angle. It baffled them.

It was Tommy who realized finally that the aliens had made a special star map for their demonstration too, and that it was a mirror-image of the faked map Tommy had shown them previously.

Tommy could grin, at that. He began to like these aliens. They were not human, but they had a very human sense of the ridiculous.

In course of time Tommy essayed a mild joke. It had to be translated into code numerals, these into quite cryptic groups of short-wave, frequency-modulated impulses, and these went to the other ship and into heaven knew what to become intelligible. A joke which went through such formalities would not seem likely to be funny. But the aliens did see the point.

There was one of the aliens to whom communication became as normal a function as Tommy's own code-handlings. The two of them developed a quite insane friendship, conversing by coder, decoder, and short-wave trains. When technicalities in the official messages grew too involved, that alien sometimes threw in strictly nontechnical interpolations akin to slang. Often, they cleared up the confusion. Tommy, for no reason whatever, had filed a code-name of "Buck" which the decoder picked out regularly when this particular signed his own symbol to a message.

In the third week of communication, the decoder suddenly presented Tommy with a message in the message frame.

You are a good guy. It is too bad we have to kill each other.—Buck.

Tommy had been thinking much the same thing. He tapped off the rueful reply;

We can't see any way out of it. Can you?

There was a pause, and the message frame filled up again.

If we could believe each other, yes. Our skipper would like it. But we can't believe you, and you can't believe us. We'd trail you home if we got a chance, and you'd trail us. But we feel sorry about it.—Buck.

Tommy Dort took the messages to the skipper.

"Look here, sir!" he said urgently. "These people are almost human, and they're likable cusses."

The skipper was busy about his important task of thinking things to worry about, and worrying about them. He said tiredly:

"They're oxygen breathers. Their air is twenty-eight percent oxygen instead of twenty, but they could do very well on Earth. It would be a highly desirable conquest for them. And we still don't know what weapons they've got or what they can develop. Would you tell them how to find Earth?"

"N-no," said Tommy, unhappily.
"They probably feel the same way," said the skipper dryly. "And if we did manage to make a friendly contact, how long would it stay friendly? If their weapons were inferior to ours, they'd feel that for their own safety they had to improve them. And we, knowing they were planning to revolt, would crush them while we could—for our own safety! If it happened to be the other way about, they'd have to smash us before we could catch up to them."

Tommy was silent, but he moved restlessly.

"If we smash this black ship and get home," said the skipper, "Earth Government will be annoyed if we don't tell them where it came from. But what can we do? We'll be

lucky enough to get back alive with our warning. It isn't possible to get out of those creatures any more information than we give them, and we surely won't give them our address! We've run into them by accident. Maybe-if we smash this ship-there won't be another contact for thousands of years. And it's a pity, because trade could mean so much! But it takes two to make a peace, and we can't risk trusting them. The only answer is to kill them if we can, and if we can't, to make sure that when they kill us they'll find out nothing that will lead them to Earth. like it," added the skipper tiredly, "but there simply isn't anything else to do!"

V.

On the Llanvabon, the technicians worked frantically in two divisions. One prepared for victory, and the other for defeat. The ones working for victory could do little. main blasters were the weapons with any promise. mountings were cautiously altered so that they were no longer fixed nearly dead ahead, with only a 5° traverse. Electronic controls which followed a radio-locator masterfinder would keep them trained with absolute precision upon a given target regardless of its maneuverings. More; a hitherto unsung genius in the engine room devised a capacitystorage system by which the normal full-output of the ship's engines could be momentarily accoumulated and released in surges of stored power far above normal. In theory,

the range of the blasters should be multiplied and their destructive power considerably stepped up. But there was not much more that could be done.

The defeat crew had more leeway. Star charts, navigational instruments carrying telltale notations, the photographic record Tommy Dort had made on the six-months' journey from Earth, and every other memorandum offering clues to Earth's position, were prepared for They were put in destruction. sealed files, and if any one of them was opened by one who did not know the exact, complicated process, the contents of all the files would flash into ashes and the ash be churned past any hope of restoration. course, if the Llanvabon should be victorious, a carefully not-indicated method of reopening them in safety would remain.

There were atomic bombs placed all over the hull of the ship. If its human crew should be killed without complete destruction of the ship, the atomic-power bombs should detonate if the Llanvabon was brought alongside the alien vessel. There were no ready-made atomic bombs on board, but there were small spare atomic-power units on board. It was not hard to trick them so that when they were turned on, instead of yielding a smooth flow of power they would explode. And four men of the earth ship's crew remained always in spacesuits with closed helmets, to fight the ship should it be punctured in many compartments by an unwarned attack.

Such an attack, however, would

not be treacherous. The alien skipper had spoken frankly. His manner was that of one who wryly admits the uselessness of lies. skipper and the Llanvabon, in turn heavily admitted the virtue frankness. Each insisted-perhaps truthfully-that he wished friendship between the two races. But neither could trust the other not to make every conceivable effort to find out the one thing he needed most desperately to conceal—the location of his home planet. And neither dared believe that the other was unable to trail him and find out. Because each felt it his own duty to accomplish that unbearable-to the other-act, neither could risk the possible existence of his race by trusting the other. They must fight because they could not do anything else.

They could raise the stakes of the battle by an exchange of information beforehand. But there was a limit to the stake either would put up. No information on weapons. population, or resources would be given by either. Not even the distance of their home bases from the Crab Nebula would be told. They exchanged information, to be sure, but they knew a battle to the death must follow, and each strove to represent his own civilization as powerful enough to give pause to the other's ideas of possible conquest-and thereby increased its appearance of menace to the other. and made battle more unavoidable.

It was curious how completely such alien brains could mesh, how-

ever. Tommy Dort, sweating over the coding and decoding machines. found a personal equation emerging from the at first stilted arrays of word-cards which arranged themselves. He had seen the aliens only in the vision screen, and then only in light at least one octave removed from the light they saw by. They. in turn, saw him very strangely, by transposed illumination from what to them would be the far ultraviolet. But their brains worked alike, Amazingly alike. Tommy Dort felt an actual sympathy and even something close to friendship for the gill-breathing, bald, and dryly ironic creatures of the black space vessel.

Because of that mental kinship he set up—though hopelessly—a sort of table of the aspects of the problem before them. He did not believe that the aliens had any instinctive desire to destroy man. In tact, the study of communications from the aliens had produced on the *Llanvabon* a feeling of tolerance not unlike that between enemy soldiers during a truce on Earth. The men felt no enmity, and probably neither did the aliens. But they had to kill or be killed for strictly logical reasons.

Tommy's table was specific. He made a list of objectives the men must try to achieve, in the order of their importance. The first was the carrying back of news of the existence of the alien culture. The second was the location of that alien culture in the galaxy. The third was the carrying back of as much information as possible about that culture.

The third was being worked on, but the second was probably impossible. The first—and all—would depend on the result of the fight which must take place.

The aliens' objectives would be exactly similar, so that the men must prevent, first, news of the existence of Earth's culture from being taken back by the aliens, second, alien discovery of the location of Earth, and third, the acquiring by the aliens of information which would help them or encourage them to attack humanity. And again the third was in train, and the second was probably taken care of, and the first must await the battle.

There was no possible way to avoid the grim necessity of the destruction of the black ship. aliens would see no solution to their problems but the destruction of the Llanvabon. But Tommy Dort, regarding his tabulation ruefully, realized that even complete victory would not be a perfect solution. The ideal would be for the Llanvabon to take back the alien ship for study. Nothing less would be a complete attainment of the third objective. But Tommy realized that he hated the idea of so complete a victory, even if it could be accomplished. He would hate the idea of killing even nonhuman creatures who understood a human joke. And beyond that. he would hate the idea of Earth fitting out a fleet of fighting ships to destroy an alien culture because its existence was dangerous. The pure accident of this encounter, between peoples who could like each other. had created a situation which could

only result in wholesale destruction.

Tommy Dort soured on his own brain which could find no answer which would work. But there had to be an answer! The gamble was too big! It was too absurd that two spaceships should fight-neither one primarily designed for fighting -so that the survivor could carry back news which would set one case to frenzied preparation for war against the unwarned other.

If both races could be warned. though, and each knew that the other did not want to fight, and if they could communicate with each other but not locate each other until some grounds for mutual trust could be reached-

It was impossible. It was chi-It was a daydream. It was nonsense. But it was such luring nonsense that Tommy Dort ruefully put it into the coder to his gill-breathing friend Buck, then some hundred thousand miles off in the misty brightness of the nebula.

"Sure," said Buck, in the decoder's word-cards flicking into place in "That is a the message frame. good dream. But I like you and still won't believe you. If I said that first, you would like me but not believe me either. I tell you the truth more than you believe, and maybe you tell me the truth more than I believe. But there is no way to know. I am sorry."

Tommy Dort stared gloomily at the message. He felt a very horrible sense of responsibility. Everyone did, on the Llanvabon. If they failed in this encounter, the human race would run a very good chance

of being exterminated in time to come. If they succeeded, the race of the aliens would be the one to face destruction, most likely. Millions or billions of lives hung upon the actions of a few men.

Then Tommy Dort saw the answer.

It would be amazingly simple, if it worked. At worst it might give a partial victory to humanity and the Llanvabon. He sat quite still, not daring to move lest he break the chain of thought that followed the first tenuous idea. He went over and over it, excitedly finding objections here and meeting them, and overcoming impossibilities there. It was the answer! He felt sure of it.

He felt almost dizzy with relief when he found his way to the captain's room and asked leave to speak.

It is the function of a skipper, among others, to find things to worry about. But the Llanvabon's skipper did not have to look. In the three weeks and four days since the first contact with the alien black ship, the skipper's face had grown lined and old. He had not only the Llanvabon to worry about. He had all of humanity.

"Sir," said Tommy Dort, his mouth rather dry because of his enormous earnestness, "may I offer a method of attack on the black ship? I'll undertake it myself, sir, and if it doesn't work our ship won't be weakened."

The skipper looked at him unseeingly.

"The tactics are all worked out.

Mr. Dort," he said heavily. "They're being cut on tape now, for the ship's handling. It's a terrible gamble, but it has to be done."

"I think," said Tommy carefully, "I've worked out a way to take the gamble out. Suppose, sir, we send a message to the other ship, offering—"

His voice went on in the utterly quiet captain's room, with the visiplates showing only a vast mistiness outside and the two fiercely burning stars in the nebula's heart.

#### VI.

The skipper himself went through the air lock with Tommy. For one reason, the action Tommy had suggested would need his authority behind it. For another, the skipper had worried more intensively than anybody else on the Llanvabon, and he was tired of it. If he went with Tommy, he would do the thing himself, and if he failed he would be the first one killed-and the taps for the Earth ship's maneuvering was already fed into the control board and correlated with the master-timer. If Tommy and the skipper were killed, a single control pushed home would throw the Llanvabon into the most furious possible all-out attack, which would end in the complete destruction of one ship or the other-or both. So the skipper was not deserting his post.

The outer air lock door swung wide. It opened upon that shining emptiness which was the nebula. Twenty miles away, the little round robot hung in space, drifting in an

incredible orbit about the twin central suns, and floating ever nearer and nearer. It would never reach either of them, of course, white star alone was so much hotter than Earth's sun that its heat-effect would produce Earth's temperature on an object five times as far from it as Neptune is from Sol. Even removed to the distance of Pluto. the little robot would be raised to cherry-red heat by the blazing white dwarf. And it could not possibly approach to the ninety-odd million miles which is the Earth's distance from the sun, So near, its metal would melt and boil away as vapor. But, half a light-year out, the bulbous object bobbed in emptiness.

The two spacesuited figures soared away from the Llanvabon. The small atomic drives which made them minute spaceships on their own had been subtly altered, but the change did not interfere with their functioning. They headed for the communication robot. The skipper, out in space, said gruffly:

"Mr. Dort, all my life I have longed for adventure. This is the first time I could ever justify it to myself."

His voice came through Tommy's space-phone receivers. Tommy wetted his lips and said:

"It doesn't seem like adventure to me, sir. I want terribly for the plan to go through. I thought adventure was when you didn't care."

"Oh, no," said the skipper. "Adventure is when you toss your life on the scales of chance and wait for the pointer to stop."

They reached the round object.

They clung to its short, scanner-

tipped horns.

"Intelligent, those creatures," said the skipper heavily. "They must want desperately to see more of our ship than the communications room, to agree to this exchange of visits before the fight."

"Yes, sir," said Tommy. But privately, he suspected that Buck—his gill-breathing friend—would like to see him in the flesh before one or both of them died. And it seemed to him that between the two ships had grown up an odd tradition of courtesy, like that between two ancient knights before a tourney, when they admired each other wholeheartedly before hacking at each other with all the contents of their respective armories.

They waited.

Then, out of the mist, came two other figures. The alien spacesuits were also power-driven. The aliens themselves were shorter than men, and their helmet openings were coated with a filtering material to cut off visible and ultraviolet rays which to them would be lethal. It was not possible to see more than the outline of the heads within.

Tommy's helmet phone said, from the communications room on the Llanvabon:

"They say that their ship is waiting for you, sir. The airlock door will be open."

The skipper's voice said heavily: "Mr. Dort, have you seen their spacesuits before? If so, are you sure they're not carrying anything extra, such as bombs?"

"Yes, sir," said Tommy. "We've

showed each other our space equipment. They've nothing but regular stuff in view, sir."

The skipper made a gesture to the two aliens. He and Tommy Dort plunged on for the black vessel. They could not make out the ship very clearly with the naked eye, but directions for change of course came from the communication room.

The black ship loomed up. It was huge; as long as the *Llanvabon* and vastly thicker. The air lock did stand open. The two spacesuited men moved in and anchored themselves with magnetic-soled boots. The outer door closed. There was a rush of air and simultaneously the sharp quick tug of artificial gravity. Then the inner door opened.

All was darkness. Tommy switched on his helmet light at the same instant as the skipper. Since the aliens saw by infrared, a white light would have been intolerable to The man's helmet lights were, therefore, of the deep-red tint used to illuminate instrument panels so there will be no dazzling of eyes that must be able to detect the minutest specks of white light on a navigating vision plate. There were aliens waiting to receive them. They blinked at the brightness of the helmet lights. The space-phone receivers said in Tommv's ear:

"They say, sir, their skipper is waiting for you."

Tommy and the skipper were in a long corridor with a soft flooring underfoot. Their lights showed details of which every one was exotic.

"I think I'll crack my helmet, sir." said Tommy.

He did. The air was good. By analysis it was thirty percent oxygen instead of twenty for normal air on Earth, but the pressure was less. It felt just right. The artificial gravity, too, was less than that maintained on the Llanvabon. The home planet of the aliens would be smaller than Earth, and —by the infrared data—circling close to a nearly dead, dull-red sun. The air had smells in it. They were utterly strange, but not unpleasant.

An arched opening. A ramp with the same soft stuff underfoot. Lights which actually shed a dim, dull-red glow about. The aliens had stepped up some of their illuminating equipment as an act of courtesy. The light might hurt their eyes, but it was a gesture of consideration which made Tommy even more anxious for his plan to go through.

The alien skipper faced them, with what seemed to Tommy a

gesture of wryly humorous deprecation. The helmet phones said:

"He says, sir, that he greets you with pleasure, but he has been able to think of only one way in which the problem created by the meeting of these two ships can be solved."



"He means a fight," said the skipper. "Tell him I'm here to offer another choice."

The Llanvabon's skipper and the skipper of the alien ship were face to face, but their communication was weirdly indirect. The aliens used no sound in communication. Their talk, in fact, took place on



microwaves and approximated telepathy. But they could not hear, in any ordinary sense of the word, so the skipper's and Tommy's speech approached telepathy. too, as far as they were concerned. When the skipper spoke, his space phone sent his words back to the Llanvabon, where the words were fed into the coder and short-wave equivalents sent back to the black The alien skipper's reply went to the Llanvabon and through the decoder, and was retransmitted by space phone in words read from the message frame. It was awkward, but it worked.

The short and stocky alien skipper paused. The helmet phones relayed his translated, soundless reply.

"He is anxious to hear, sir."

The skipper took off his helmet. He put his hands at his belt in a

belligerent pose.

"Look here!" he said truculently to the bald, strange creature in the unearthly red glow before him. "It looks like we have to fight and one batch of us get killed. We're ready to do it if we have to. But if you win, we've got it fixed so you'll never find out where Earth is, and there's a good chance we'll get you anyhow! If we win, we'll be in the same fix. And if we win and go back home, our government will fit out a fleet and start hunting your planet. And if we find it we'll be ready to blast it to hell! If you win, the same thing will happen to us! And it's all foolishness! We've stayed here a month,

and we've swapped information, and we don't hate each other. There's no reason for us to fight except for the rest of our respective races!"

The skipper stopped for breath, scowling. Tommy Dort inconspicuously put his own hands on the belt of his spacesuit. He waited, hoping desperately that the trick would work.

"He says, sir," reported the helmet phones, "that all you say is true. But that his race has to be protected, just as you feel that yours must be."

"Naturally!" said the skipper angrily. "but the sensible thing to do is to figure out how to protect it! Putting its future up as a gamble in a fight is not sensible. Our races have to be warned of each other's existence. That's true. But each should have proof that the other doesn't want to fight, but wants to be friendly. shouldn't be able to find each other. but we should be able to communicate with each other to work out grounds for a common trust. If our governments want to be fools, let them! But we should give them the chance to make friends, instead of starting a space war out of mutual funk!"

Briefly, the space phone said:

"He says that the difficulty is that of trusting each other now. With the possible existence of his race at stake, he cannot take any chance, and neither can you, of yielding an advantage."

"But my race," boomed the skipper, glaring at the alien captain, "my race has an advantage now. We came here to your ship in atompowered spacesuits! Before we left, we altered the drives! We can set off ten pounds of sensitized fuel apiece, right here in this ship, or it can be set off by remote control from our ship! It will be rather remarkable if your fuel store doesn't blow up with us! In other words, if you don't accept my proposal for a commonsense approach to this predicament, Dort and I blow up in an atomic explosion, and your ship will be wrecked if not destroyed-and the Llanvabon will be attacking with everything it's got within two seconds after the blast goes off!"

The captain's room of the alien ship was a strange scene, with its dull-red illumination and the strange, bald, gill-breathing aliens watching the skipper and waiting for the inaudible translation of the harangue they could not hear. But a sudden tensity appeared in the air. A sharp, savage feeling of strain. The alien skipper made a gesture. The helmet phones hummed.

"He says, sir. what is your proposal?"

"Swap ships!" roared the skipper. "Swap ships and go on home! We can fix our instruments so they'll do no trailing, he can do the same with his. We'll each remove our star maps and records. We'll each dismantle our weapons. The air will serve, and we'll take their ship and they'll take ours, and neither one can harm or trail the other, and each will carry home

more information than can be taken otherwise! We can agree on this same Crab Nebula as a rendezvous when the double-star has made another circuit, and if our people want to meet them they can do it, and if they are scared they can duck it! That's my proposal! And he'll take it, or Dort and I blow up their ship and the Llanvabon blasts what's left!"

He glared about him while he waited for the translation to reach the tense small stocky figures about him. He could tell when it came because the tenseness changed. The figures stirred. They made gestures. One of them made convulsive movements. It lay down on the soft floor and kicked. Others leaned against its walls and shook.

The voice in Tommy Dort's helmet phones had been strictly crisp and professional, before, but now it sounded blankly amazed.

"He says, sir. that it is a good joke. Because the two crew members he sent to our ship, and that you passed on the way, have their spacesuits stuffed with atomic explosive too, sir, and he intended to make the very same offer and threat! Of course he accepts, sir. Your ship is worth more to him than his own, and his is worth more to you than the *Llanvabon*. It appears, sir, to be a deal."

Then Tommy Dort realized what the convulsive movements of the aliens were. They were laughter.

It wasn't quite as simple as the skipper had outlined it. The ac-

tual working-out of the proposal was complicated. For three days the crews of the two ships were intermingled, the aliens learning the workings of the Llanvabon's engines, and the men learning the controls of the black spaceship. was a good joke-but it wasn't all a joke. There were men on the black ship, and aliens on the Llanvabon, ready at an instant's notice to blow up the vessels in question. And they would have done it in case of need, for which reason the need did not appear. But it was, actually, a better arrangement to have two expeditions return to two civilizations. under the arrangement, than for either to return alone.

There were differences, though. There was some dispute about the removal of records. In most cases the dispute was settled by the destruction of the records. was more trouble caused by the Llanvabon's books, and the alien equivalent of a ship's library, containing works which approximated the novels of Earth. those items were valuable to possible friendship, because they would show the two cultures, each to the other, from the viewpoint of normal citizens and without propaganda.

But nerves were tense during those three days. Aliens unloaded and inspected the foodstuffs intended for the men on the black ship. Men transshipped the foodstuffs the aliens would need to return to their home. There were endless details, from the exchange

of lighting equipment to suit the evesight of the exchanging crews, to a final check-up of apparatus. A joint inspection party of both races verified that all detector devices had been smashed but not removed. so that they could not be used for trailing and had not been smuggled away. And of course, the aliens were anxious not to leave any useful weapon on the black ship, nor the men upon the Llanvabon. It was a curious fact that each crew was best qualified to take exactly the measures which made an evasion of the agreement impossible.

There was a final conference before the two ships parted, back in the communication room of the Llanvabon.

"Tell the little runt," rumbled the *Llanvabon's* former skipper, "that he's got a good ship and he'd better treat her right."

The message frame flicked word-cards into position.

"I believe," it said on the alien skipper's behalf, "that your ship is just as good. I will hope to meet you here when the double star has turned one turn."

The last man left the Llanvabon. It moved away into the misty nebula before they had returned to the black ship. The vision plates in that vessel had been altered for human eyes, and human crewmen watched jealously for any trace of their former ship as their new craft took a crazy, evading course to a remote part of the nebula. It came to a crevasse of nothingness, leading to the stars. It rose swiftly to clear space. There was the instant

of breathlessness which the overdrive field produces as it goes on, and then the black ship whipped away into the void at many times the speed of light.

Many days later, the skipper saw Tommy Dort poring over one of the strange objects which were the equivalent of books. It was fascinating to puzzle over. The skipper was pleased with himself. The technicians of the Llanvabon's former crew were finding out desirable things about the ship almost momently. Doubtless the aliens were as pleased with their discoveries in the Llanzabon. But the black ship would be enormously worth while -and the solution that had been found was by any standard much superior even to a combat in which the Earthmen had been overwhelmingly victorious.

"Hm-m-m. Mr. Dort," said the skipper profoundly. "You've no equipment to make another photographic record on the way back. It was left on the *Llanvabon*. But fortunately, we have your record taken on the way out, and I shall report most favorably on your suggestion and your assistance in carrying it out. I think very well of you, sir."

"Thank you, sir." said Tommy Dort.

He waited. The skipper cleared his throat.

"You . . . ah . . . first realized the close similarity of mental processes between the aliens and ourselves," he observed. "What do you think of the prospects of a friendly arrangement if we keep a rendezvous with them at the

nebula as agreed?"

"Oh, we'll get along all right, sir," said Tommy. "We've got a good start toward friendship. After all, since they see by infrared, the planets they'd want to make use of wouldn't suit us. There's no reason why we shouldn't get along. We're almost alike in psychology."

"Hm-m-m. Now just what do you mean by that?" demanded the

skipper.

"Why, they're just like us, sir!" said Tommy. "Of course they breathe through gills and they see by heat waves, and their blood has a copper base instead of iron and a few little details like that. But otherwise we're just alike! There were only men in their crew, sir,

but they have two sexes as we have, and they have families, and . . . er . . . their sense of humor— In fact—"

Tommy hesitated.

"Go on, sir," said the skipper.

"Well— There was the one I called Buck, sir, because he hasn't any name that goes into sound waves," said Tommy. "We got along very well. I'd really call him my friend, sir. And we were together for a couple of hours just before the two ships separated and we'd nothing in particular to do. So I became convinced that humans and aliens are bound to be good friends if they have only half a chance. You see, sir, we spent those 'two hours telling dirty jokes."

THE END.

#### THE ANALYTICAL LABORATORY

Since the February issue carried only four fiction stories, there is no fifth place this time. Summarizing the general tone of reader letters received, rather than the actual place-vote numbers, would suggest a very close tie between the two longer items—the last installment of "Nomad" and "The Piper's Son," and an equally close tie between the shorter "Lilies of Life" and "Wanted—An Enemy". Incidentally, I expected more comment than I received on the fact that "Wanted—An Enemy" and "Nomad" were two independent, vastly different developments of the same cockeyed point of human nature.

#### The scoreboard reads:

Place	Story	Author .	Points
1.	Nomad	Wesley Long	1.41
2.	The Piper's Son	Lewis Padgett	2.13
3.	Lilies Of Life	Malcolm Jameson	2.78
4.	Wanted-An Enemy	Fritz Leiber, Jr.	3.23

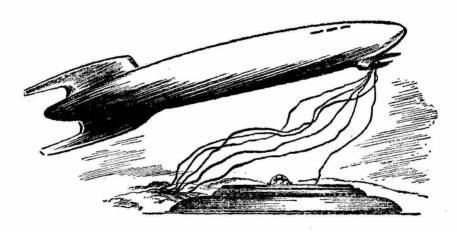
THE EDITOR

That life on other worlds might take strange forms is an old thought to science-fiction, in one sense. But that life might be a strange form—

## The Trap

### by FRANK BELKNAP LONG

Illustrated by Williams



It was a beautiful morning. The mist had come up deep and blue, the air was not too cold, and out of the blueness a great ship loomed, its hull outlined in garish radiance against a shimmer of light so vast and tumultuous it seemed to span the Galaxy.

"She's sure coming in fast!" called a voice from the star station.

William Hanley knocked the dottle from his pipe, and scowled at a rent in the mist where a few truant stars still hung like droplets of flame. At first the ship had loomed up soundlessly, but now the landing strip was vibrating, and the drone of the huge vessel's motors had become a deep, throbbing roar overhead.

"She'll take the station with her!" Hanley groaned. Then, as though his mind rejected the thought: "She'll veer—she'll have to. No astragator this side of the Coal Sack could be that malicious!"

As if in confirmation a sudden, vibrant clang rang out in the stillness. Not the resonant crash of

buckling gravity plates, but the more reassuring sound of magnetic mooring cables clattering against a smooth metal hull.

Hanley stood perfectly motionless, his mouth hanging open. For an instant he had the distinct and awful feeling that he had parted company with his sanity. That the forward ends of mooring cables a scant half-dozen magnetically groping strands—could steady and slow down a ship three hundred meters in length was against all reason.

Yet it was happening. From the great vessel's bow there projected a notched metal half-moon which gathered up the questing strands and bound them into a stabilizing skein a hundred yards from the mooring mast. Faster and faster, more and more incredibly, until the ship hung completely motionless—an immense, blue-black ellipsoid agleam with winking lights.

"Bill! Did you see that? Did

you see it?"

Peering back over his shoulder, Hanley could make out the startled face of his assistant hovering like a plucked owl's head in the station's mist-filled doorway. As he stared in consternation young Gregg withdrew his head, and the mist which swirled in the doorway brightened. A moment later the station's one window glowed.

Hanley swore softly, aware of a stirring of panic deep down in his consciousness. Mingling with his alarm was an angry realization that Gregg was turning on all the lights in the station.

On a Rigel System refueling station a million light-years from nowhere time could hang heavy with uneventfulness. A process of desensitization could set in so profound that even the coming and going of trans-Galactic cruiser flotillas—"great old ships in sidereal splendors veiled"—impinged on the mind with a miragelike vagueness. Yet now, in a few brief moments, the pattern of months had been shattered.

Hanley knew what was happening, of course.

He was slowly going crazy.

A ship with a bowsprit that gobbled up mooring cables was on a par with young Gregg's habit of yodeling to the ogreish shadowshapes which haunted the mistdraped planetoid from dawn to dusk. And Gregg was crazy, had been for months.

The youth hadn't been told yet, but he was crazy. How could he be safe and want to play a saxophone into the small hours, wrenching from that utterly base instrument music that made Hanley physically ill. Most of the time he stayed by himself at the far end of the dingy station, and that, too, was a bad sign.

. Was lunacy contagious?

Behind Hanley there loomed four cyclopean fuel tanks, their conical summits bathed in a fuzzy glow. The star station, which was also conical, had been constructed out of discarded scraps of metal in great haste by a Galactic Commission engineer bent on getting back

to Terra in time for the Christmas holidays.

"The tanks' young 'un," Gregg

had ironically dubbed it.

There was no law, of course, to prevent Gregg from coining names for objects which got on his superior's nerves. But as Hanley swung about and strode into the wretched structure he told himself that Gregg was far more case-hardened than the average run of criminals. He was forever committing breaches of simple decency by refusing to keep his thoughts to himself. He—

Hanley shuddered, and stood blinking at the personification of all his woes regarding him from the depths of the station's dingy, blankwalled interior, the train of his thoughts derailed by something in the youth's stare which infuriated him to the core of his being.

The bright but rapidly disintegrating personality that was Gregg was not incapable of a kind of fishcold sympathy which verged on condescension, verged on pity, and

all because-

Well, because Gregg was forever insisting that he, Hanley, had no poetry in his soul, and no appreciation of what it meant to be an artist. Sporadically the youth painted, wrote poetry, and thought of himself generally as a misunderstood and maladjusted man of genius.

Actually there was no lazier youth this side of Betelgeuse. When something showed signs of blowing he could be a competent grease monkey, could climb all over

the big tanks till sweat dripped from him. But that didn't mean he wasn't lazy. Things had to come to an almost calamitous pass before he'd exert himself.

Gregg sat now on a narrow cot with his hands locked across the back of his head, a slight frown creasing his handsome face. Having helped himself to one of Hanley's cigars, he was keeping his feet firmly planted on the floor, so that his superior would not suspect that he was wearing holes in a borrowed pair of cello socks.

"Well, Bill?" he said.

"Why did you duck out of sight just when I needed your advice?" Hanley flared.

Gregg looked startled. "You needed my advice?"

"Certainly." Hanley was bitter. "When you disagree with me, I know I'm right. When you don't, I have to watch my step."

Gregg took the cigar out of his mouth and stared hard at the glowing tip. "I don't think we should ignore the message just because there were no code numerals on the tape," he said. "I've a feeling it will be followed by an official message."

He looked up, serious concern on his face. "That's my honest opinion, and I'd advise you not to shrug it off just because you don't like the cut of my jib."

"That's for me to decide," Hanley snorted. Then his features softened: "The cut wouldn't matter so much if we had more elbow room. Shut two or six or a dozen men up together in a station this size for six months running and any one of ten million personality traits can produce downright hostile reactions. You get so you resent the way a guy draws on his socks."

He smiled bitterly. "Even when

they're your socks."

"Holes in mine," Gregg said, shamelessly. "You borrowed my magneto-razor, didn't you?"

"Yeah, and your second best pipe. It stank up the whole planetoid."

Hanley fumbled in his pocket, drew out a crumpled tele-message. "It doesn't mean a thing to me that this came in over a sidereal communications circuit," he said, defensively. "Any screwloose could have sent it."

He read aloud: "Ship of peculiar design and unknown origin, recently triangulated in Eridanus, is now believed to be approaching Orion. Vessel refuses to communicate."

"And that's all," Hanley grunted, crumpling the flimsy message for



the twentieth time. "No description of the ship, no—"

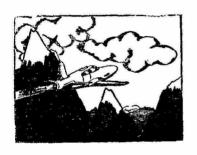
"How about 'peculiar design'?"

Gregg asked.

"Do you call that a description?"
"Perhaps whoever sent that message wanted you to fill in the gaps,"
Gregg suggested, with a twisted smile. "If he'd said there was a ship loose in space with a cable-eating bowsprit, you know where you'd have tossed that message."

"It wouldn't have cost him anything to describe the ship!" was Hanley's embittered response.

"No, it wouldn't," Gregg admitted. "But perhaps some sympathetic little minor official some-



where knew there's nothing quite so unnerving as a terse, carefullyphrased understatement. Perhaps

"Stop right there!" Hanley snapped. "I'm sick and tired of your circumlocutions."

"But don't you see? He could be trying to warn you without stepping on official toes. The Commission may not want to commit itself—yet. So far the ship hasn't made port. The Commission may be waiting to see what happens when it does. A clever man would use just that ap-

proach—throw out a hint without seeming to do so."

"Anything more?" Hanley ex-

ploded.

"Only that we ought to thank our lucky stars the message came through when it did. We might have permitted her to refuel."

Hanley started across the room, Gregg's eyes following him. He swung about before he reached the door.

"Just a minute, Gregg. What do you suggest we do?"

Gregg's brooding gaze hovered between his superior and the glowing tip of his cigar.

"Well, nothing inside that ship can come out and descend to our peaceful little Utopia unless it suits our convenience. She may or may not have an antimagnetic hull, but the force-field she's nestling against couldn't be busted open by a runaway star with a core of pure deuterium."

"Go on."

Gregg blew a smoke ring and watched it ascend toward the ceiling. "We built that field up as a protection against piracy. If the crew refuse to image themselves in on the disk, we won't dissolve the field. We'll be within our rights unless—"

Gregg hesitated. "Unless their papers are in order, and a human face comes through. Even then we could tell them we're in quarantine. I've often thought that a human face could be simulated. On the disk, I mean—"

Hanley passed a hand over his

brow. "Maybe we'd better start making arrangements now," he said.

"For what?"

"Your incarceration."

Gregg watched his superior swing about. This time Hanley did not pause or look back.

He's not telling me, Gregg thought, but he'll be inside that ship in ten minutes.

He started toward the door and then—inertia enfolded him like a winding sheet. Lord, how he hated to act, to make decisions, to do anything which went counter to the immense indolence which was his most outstanding character trait.

In some respects he was like those pioneer fossil amphibians, the lobefins. Not as good as reptiles, better than fishes, the lobe-fins had been caught up in a backwash of inertia on the eve of what might have been their greatest evolutionary triumph.

Compared to men of really vibrant energies he was a lobe-fin. He couldn't quite climb up over the bank because he liked to stretch himself out in the tidal muck, and bask in the warm sunlight.

He moved in a radiant little orbit of his own inside the immense. bustling beehive of activity which homo sapiens had set up.

Some day anthropologists were going to discover that the genus homo embraced six distinct species of men. Extinct were homo heidelbergensis, homo neanderthalensis, homo rhodesiensis and homo soloensis. Living were homo sapiens, and —homo indolensis.

Fortunately very few people sus-

pected the existence of homo in-

Gregg moved languidly to a bookcase and pulled out Hargrave's "Third Stage of Interstellar Expansion." It was a fascinating book because Hargrave, too, had been capable of deriving the most intense emotional satisfaction from just sitting sprawled out in a chair and letting his imagination run riot.

There could be no doubt that the impulse to sit and dream, to forego all exertion, was a progressive, specialized derivation from a much earlier attempt on the part of primitive man to shuffle off the immense responsibility of—fire and flint making, the pursuit of game, and the upbringing of a family.

An artist who could sit and paint lovely pink bison on the walls of the communal rock cavern didn't have to worry much about any of those things. When game was plentiful his needs were supplied by other, less imaginative members of the tribe. But when the development became too specialized—

A bitterness tightened Gregg's lips. He could, of course, have forcibly prevented Hanley from sticking out his neck. He had the edge on Hanley in physical strength and could have restrained him with very little effort. Why hadn't he?

Within the scope of his inertia he was not incapable of exerting himself in a dramatic, forceful way. He shrank only from making longrange decisions, from shouldering great, dull burdens, from becoming enmeshed in aggressive arguments with people who did not possess enough intelligence to argue imaginatively about anything.

A lobe-fin? Why did he persist in kidding himself? He was in all respects the exact opposite of a lobe-fin. His inertia was the inertia of a tremendous creativeness anchored in the pleasure principle, a creativeness that had to be stimulated in just the right way, or—it wouldn't play ball. It was a physiological fact that when creative impulses were thwarted inertia enveloped the

body, a sluggishness crept into the brain.

He didn't feel exactly sluggish now, however. Not mentally sluggish. He had a feeling that out in the mist something might very well be taking place which would have stripped his inertia from him—could he have but seen it.

His head felt suddenly cold. Not just his face, but his entire head, the top of his skull especially.

Why hadn't he tried to stop Han-



ley? Was it because, subconsciously, he'd known that Hanley feared nothing he could not come to physical grips with? The one thing Hanley couldn't do was sit and dream. And when a practical man goes forth to take a bull by the horns, half-expecting to be gored, a practical man, a dreamer, had no right to interfere.

Gregg opened "The Third Stage of Interstellar Expansion," and removed the bookmark he'd placed opposite Chapter 2. He began, slowly, to read: "As for the possibility of life on other worlds—"

He has taken the first step. There were two. Why did the other not come?

The thought moved slowly along the passageway, and hovered above. Hanley. The thought pulsed, and moved down the wall and across the floor of the passageway. It hovered above Hanley from the opposite wall, comprehending him.

Hanley stood just inside the airlock examining a passageway which seemed covered with the dust of centuries, his heart thudding against his ribs.

In the narrow swath of radiance cut by his glow torch he could see the dust clearly. It was greenishyellow, mildewed over with moist threads of fungus growth which adhered to his shoes when he lifted first his right foot, then his left.

He does not need the light be is carrying. Surely he can see without the light.

A dull radiance suffused the passageway, so that when Hanley clicked off the torch he was not in darkness.

There was a musty smell in the passageway, and in the wider corridor which branched off from it. The walls of the ceiling were covered with mildew, and when he moved, his head felt suddenly cold. Not just his face, but his entire head, the top of his skull especially.

The corridor startled Hanley, not because it was empty, but because it was so full of strange, angular shadows. The room at the end of the corridor startled him still more.

The room wasn't empty. In the dim light Hanley could make out a circular metal chair, and the dim outlines of a seated figure. The chair was faintly luminous, and seemed not so much an article of furniture as an extension of the floor which had mushroomed into a chilling circularity in the precise middle of the room.

Touch him. He was once like yourself.

The seated figure bore an unmistakable resemblance to a shrunken old man with thinning hair and a greenish-yellow beard. But when Hanley reached out and touched the beard, it crumpled, leaving a dampness on his palm. Mildew, dust came away, revealing a gleaming clavicle, and hollow eye sockets which seemed to be staring past Hanley at something on the opposite wall.

The wall. If you would know more, scrape—scrape away the dust.

For a terrifying instant Hanley had an apprehension that something

in the room was trying to communicate with him. It was as though there were a living presence in the room which could force him to obey its unspoken commands.

Could force him? With a convulsive shudder Hanley turned, and stumbled from the room. Out in the corridor another heart-stopping spasm shook him. For an instant he was on the verge of giving way completely to his terror. Then—anger flooded into his brain. Nothing he couldn't see could force him to do something he didn't want to do. Nothing—nothing—

He was standing in another room. The chair was larger and more disturbingly circular, more disturbingly shaped than the chair in the room from which he had fled. The seated figure was larger too.

He is beginning to understand. This was a very ancient one of his own kind. Will he scrape away the dust?

The seated figure was vaguely humanoid in appearance, but its teeth were very large, and enormous brow ridges arched above its hollow eyes. Sweat was trickling down something Hanley's face. and seemed to be pressing against his mind, blurring his thought processes. Like a skull he'd seen somewhere. Unutterably remote, behind glass in a dim shadowed hall. A pug-faced ape that had decided to become a man, in the vaguest way shambling through a forest primeval. Ugly, snarling-

Hanley forced his mind back to awareness. He wasn't standing in a museum on Terra. All through his body he could feel a tension mounting. There was a dense coating of dust on the creature's heavy, almost chinless jaw and its limbs were so thickly coated with dust they seemed emmeshed in cobwebs.

Scrape—scrape away the dust. Hanley turned, and stumbled from the room.

It was a very large and silent room, and the light was so dim that Hanley had to strain to see the back of the seated figure's head. The chair was squarish rather than circular, and so high that the figure's short, spindly legs barely touched the floor. The skull was massive—more birdlike than apelike.

Hanley groped his way out of the room.

It was a skeleton, but the head grew out from the middle of the squat torso, and long, translucent talons curved about the arms of the chair.

The crusted suns spawned himher in the night of a long begetting. The wall. Scrape away the dust.

When at last Hanley found himself scraping away the dust on the wall of a very dim, circular chamber deep within the bowels of the ship his lips were twitching, and he could no longer control the trembling of his hands.

Behind him loomed a chair which had seemingly mushroomed up out of the floor in a frenzied attempt to support and contain a growth so prolific that not even death could prevent it from spawning. The many-tubed occupant of the chair was not a skeleton. There were no articulations, nothing but a clotted mass of tendrils spilling over the arms of the chair, and snaking out across the floor. Its young lay scattered about the chamber—tiny medusa-heads, desiccated and loath-some.

A chair in which to sit and dream. Hanley started, for the words had come unbidden into his mind, and had no relation at all to the frantic scrapings he was making with his pocket knife on the smooth metal wall.

The design, when it came into view, did not startle him as much as he had anticipated it would.

He was conscious that his palms were sweating. How—how had he known he was going to uncover a design? He hadn't known, couldn't have known.

It wasn't important anyway. Only the design was important. It was engraved deeply on the metal and almost it seemed geometrical, and overlapping series of circles superimposed on triangles.

He has taken the second step. A chair in which to dream and die.

The design was sharply-etched, and yet it seemed to possess a kind of physi-mathematical mobility. As Hanley stared the corners of the triangles blurred, and the circles dissolved into a pinwheeling blur of radiance.

Then-

Gaze deeply on that which is now a stillness, now a dreaming—forever and forever a dreaming and a stillness.

Hanley was shivering convulsively when he left the room.

The room was quite brightly illumed, and there was no dust at all on the wall. And the chair was like the first chair he'd seen, designed to support and contain not an alien inhabitant of a planet encircling some distant sun, but a man of about his own height and weight—

Hanley knew that he had found the right chair even as he seated himself. There was no dust on the wall, and he could see the design clearly. At first he saw only the



design and then—a strange beauty danced on the wall. A beauty and a growing wonder that he could have so quickly progressed from a childish reluctance, a childish drawing back to the all-embracing glory of—

The music was faint at first, but gradually, as Hanley stared, it grew louder. But even when it filled the room it seemed to come from distances immeasurably remote.

It was like no music Hanley had ever heard. It throbbed and it pulsed, and there were times when it seemed cruel, almost torturing, and times when it was a sweetness ineffable which kept company with his thoughts as he voyaged mathematically afar, through stellated caverns of stillness and aisles of incredibly converging prisms—

Thomas Gregg sat on the edge of the cot, with "The Third Stage of Interstellar Expansion" spread out on his knees. It was a very large and bulky book, and one of the folding illustrations had come unhinged, so that a filmy star field seemed to float between his waist and the floor. He was reading aloud, in a voice that trembled a little with the intensity of his emotion.

"We are far too prone to think of life as exclusively a biological phenomenon. If a creature moves about and absorbs nourishment and reproduces itself, we say that it is alive. But pure form, pure design, may also be a manifestation of life.

"In the dim infancy of our race, when it was believed that the soul of a dead man could leave the buried body by night to suck the blood of living persons a curious expression gained currency, the blood is the life.

"In a coldly scientific sense it may be said that even the most primitive superstitions bear a casual relation to reality, for without their aid certain ideas could not be easily expressed or explained, or a satisfying mind picture built up. For instance, a thing is shaped in a certain way, and it lives. Destroy the pattern and it dies. How can we be sure that on some far planet that has not yet known the tread of man the form may not be the life?

"The form is the life!

"... neither should we assume that such a life would stay confined to the planet of its origin, for it is not in the nature of life to forego all questing. In the course of ages a decorative-locomotive synthesis would doubtless be built up. In the course of ages a far-voyaging synthesis—perhaps in certain superficial aspects not unlike the slender stellar craft which have carried our own kind to the farthest star—might well seek out new worlds to conquer.

"As to-what form that questing would take, who can say? A life that is decorative, a life that is pure form, pure design, would have a tendency, perhaps, to seek above all things appreciation."

Gregg snapped the book shut, stood up, yawned, and walked to the door of the star station.

It was a beautiful morning. The mist had come up deep and blue, the

air was not too cold and out of the blueness a great ship loomed, its hull outlined in garish radiance against a shimmer of light so vast and tumultuous it seemed to span the Galaxy.

On a Betelgeuse System refueling station a million light-years from nowhere time could hang heavy with uneventfulness.

But now somehow Gregg was strangely stirred.

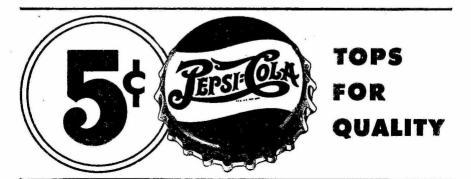
Not that the ship was even remotely like the one he'd dragged a babbling and completely demoralized Hanley from a decade before. But somehow, just reading Hargrave's book had brought it all back. A revised edition of Hargrave's book, of course, with that very memorable passage inserted after he, Gregg, had explored three or four of the rooms inside the vessel.

Shutting his eyes, Gregg could see again the great ship regurgitating her mooring cables, slipping out into the void with a vibrant droning. It seemed only yesterday that he'd proved to himself that an impractical man, a dreamer, could be stronger inwardly than a hard-bitten extrovert. He'd saved Hanley without succumbing himself, and now soon he'd be going back to Terra to bask in the affluence which "The Third Stage of Interstellar Expansion" had brought him.

After ten years of lonely exile, five under Rigel, five under Betelgeuse, the world had at last discovered that William Hargrave, alias Thomas Gregg, poet, musician, painter, and, in his more energetic moments, star station grease monkey par excellence, was an astrahistorian of the first rank, and a man of tremendous creative energies.

Smiling a little, Gregg passed through the narrow doorway and out across the landing strip with his arms upraised, partly as a welcoming gesture to the crew of the incoming vessel, partly in sheer exuberance because the dawn was so beautiful.

THE END.



THE TRAP



# The One-Eyed Man

## by PHILIP ST. JOHN

A mechanical educator, a device capable of giving a twelve-yearold a complete adult education, might result in unexpected mental blindness—wherein even the one-eyed man had powers!

#### Illustrated by Orban

A blank-faced zombi moved aside as Jimmy Bard came out of the dictator's office, but he did not notice it; and his own gesture of stepping out of the way of the worried, patrolling adult guards was purely automatic. His tall, well-muscled body went on doing all the

43

things long habit had taught it, while his mind churned inside him, rebelling hopelessly at the inevitable.

For a moment, the halls were free of the countless guards, and Jimmy moved suddenly to one of the walls, making quick, automatic motions with his hands. There was no visible sign of change in the surface, but he drew a deep breath and stepped forward; it was like breasting a strong current, but then he was inside and in a narrow passageway, one of the thousands of secret corridors that honeycombed the whole monstrous castle.

Here there could be no adults to remind him of what he'd considered his deficiencies, nor of the fact that those deficiencies were soon to he eliminated. The first Dictator Bard had shared the secret of the castle with none save the murdered men who built it: and death had prevented his revealing it even to his own descendants. No tapping would ever reveal that the walls were not the thick, homogeneous things they seemed, for tapping would set off alarms and raise stone segments where needed, to make them as solid as they appeared. It was Jimmy's private kingdom, and one where he could be bedeviled only by his own thoughts.

But today, those were trouble enough. Morbid fascination with them drove him forward through the twisting passages until he located a section of the wall that was familiar, and pressed his palm against it. For a second, it seemed cloudy, and then was transparent, as the energies worked on it, letting vibration through in one direction only. He did not notice the quiet sounds of those in the room beyond, but riveted his eyes on the queer headpieces worn by the two girls and single boy within.

Three who had reached their twelfth birthday today and were about to become adults-or zombis! Those odd headpieces were electronic devices that held all the knowledge of a complete, allembracing education, and they were now working silently, impressing that knowledge onto the minds of their wearers at some two hundred million impulses a second. grooving it permanently into those minds. The children who had entered with brains filled only with the things of childhood would leave with all the information they could ever need, to go out into the world as full adults, if they had withstood the shock of education. Those who failed to withstand it would still leave with the same knowledge, but the character and personality would be gone, leaving them wooden-faced, soulless zombis.

Once Jimmy had sat in one of those chairs, filled with all the schemes and ambitions of a young rowdy about to become a man. But that time, nothing had happened! He could remember the conferences. the scientific attempts to explain his inability to absorb information from the compeller Aaron Bard had given the world, and his own tortured turmoil at finding himself something between an adult and a zombi, useless and unwanted in a world where only results counted. He had no way of knowing, then. that all the bitter years of adjusting to his fate and learning to survive in the contemptuous world were the result of a fake. It was

only within the last hour that he had discovered that.

"Pure fake, carefully built up!" His father had seemed proud of that, even over the worry and desperation that had been on his face these last few days. other two before you who didn't take were just false leads, planted to make your case seem plausible: same with the half dozen later cases. You'd have burned-turned zombi. almost certainly. And you're a Bard, some day to dictate this country! I took the chance that if we waited until you grew older, you'd pass, and managed to use blank tapes. Now I can't wait any longer. Hell's due to pop, and I'm not ready for it, but if I can surprise them, present you as an adult- Be back here at six sharp, and I'll have everything ready for your education!"

Ten years before, those words would have spelled pure heaven to him. But now the scowl deepened on his forehead as he slapped off the one-way transparency. He'd learned a lot about this world in those ten years, and had seen the savage ruthlessness of the adults. He'd seen no wisdom, but only cunning and cleverness come from the Bard psychicompellers.

"Damn Aaron Bard!"

"Amen!" The soft word came sighing out of the shadows beside the boy, swinging him around with a jerk. Another, in here! Then his eyes were readjusting to the pale, bluish glow of the passages, and he made out the crouched form

of an elderly man, slumped into one of the corners. That thin, weary figure with bitter mouth and eyes could never be a castle guard, however well disguised, and Jimmy breathed easier, though the thing that might be a weapon in the hands of the other centered squarely on him.

The old man's voice trembled faintly, and there were the last dregs of bitterness in it. "Aaron Bard's damned, all right. I thought his discovery of one-way transparency was lost, though, along with controlled interpenetrability of matter—stuff around which to build a whole new science! And yet, that's the answer; for three days I've been trying to find a trapdoor or sliding panel, boy, and all the time the trick lay in matter that could be made interpenetrable! Amusing to you?"

"No, sir." Jimmy held his voice level and quite normal. A grim ability to analyze any situation had been knocked into him during the years of his strangeness in a world that did not tolerate strangeness, and he saw the man was close to cracking. He smiled quietly-and moved without facial warning, with the lightning reaction he had forced himself to learn, ripping the weapon out of weakened hands. His voice was still quiet. "I don't know how you know those things, nor care. The important thing is to keep you from letting others know, and-"

Sudden half-crazed laughter cut his words off. "Go back to the others and tell them! Go back and be tortured again! They'd love that. Aaron Bard's come back to tell us about some more of his nice discoveries! So sweet of you to call, my dear! I'm damned all right, by my own reputation."

"But Aaron Bard's been dead eighty years! His corpse is preserved in a glass coffin on exhibition; I've seen it myself." And yet there was more than simple insanity here; the old man had known the two secrets which were discovered by Aaron Bard and which his son, the first dictator, had somehow managed to find and conceal after the inventor's death in an explosion. But the man was speaking again, his voice weak and difficult.

"What does a mere eighty years mean, or a figure of wax in a public coffin? The real body they held in sterile refrigeration, filled with counter enzymes—my own discovery, again! You know it?"

limmy nodded. The Russians had found safe revival of dogs possible even after fifteen minutes of death; later, men had been operated on in death, where it served better than anaesthesia, and revived The only limit had been the time taken by the enzymes of the body to begin dissolving the tissues; and with the discovery by Aaron Bard of a counteracting agent, there had ceased to be any theoretical limit to safe revival. Dving soldiers in winter had injected ampules of it and been revived days or weeks later, where the cold had preserved them. "But -eighty years!"

"Why not-when my last experi-

ment dealt with simple atomic power, rather than the huge, cumbersome U-235 method? Think what it would mean to an army! My son did—he was very clever at thinking of such things. Eighty years, until they could perfect their tissue regrowing methods and dare to revive my body." He laughed again, an almost noiseless racking of his exhausted shoulders, and there was the hint of delirious raving in his voice now, though the words were still rational.

"I was so pathetically grateful and proud, when they revived me. I was always gratefully proud of my achievements, you know, and what they could do for humanity. But the time had been too longmy brain only seemed normal. had deteriorated, and I couldn't remember all I should: when I tried too hard, there were strange nightmare periods of half insanity. And their psychological torture to rip the secret from me didn't help. Two months of that, boy! They told me my name was almost like a god's in this world, and then they stopped at nothing to get what they wanted from that god! And at last I must have gone mad for a time; I don't remember, but somehow I must have escaped—I think I remember something about an air shaft. And then I was here, lost in the maze, unable to get out. But I couldn't be here, could I, if the only entrance was through interpenetrable stone panels that couldn't energize?"

"Easy, sir." Jimmy slipped an arm under the trembling body of

Aaron Bard and lifted him gently. "You could, all right. There's one out of order, in constant interpenetrable condition in an old air shaft. That's how I first found all this, years ago. There's some soup I can heat in my rooms, and you won't have to go back to them."

He might as well do one decent and human thing, while his mind was still his own, untouched by the education machine. And seeing this bitter, suffering old man, he could no longer hate Aaron Bard for inventing it. The man had possessed a mind of inconceivable scope and had brought forth inventions in all fields as a cat brings forth kittens, but their misuse was no fault of his.

And suddenly it occurred to him that here in his arms was the reason for the desperation his father felt. They couldn't know of the interpenetrable panel. and the search that had undoubtedly been made and failed could have only one answer to them; he must have received outside help from some of the parties constantly plotting trea-With the threat of simple atomic power in such hands, no wonder his dictator father was pulling all his last desperate tricks to maintain the order of things! Jimmy shook his head: it seemed that everything connected with Aaron Bard led to the position he was in and the inevitable education he must face. For a brief moment he hesitated, swayed by purely personal desires; then his hand moved out to the panel, and he was walking through into his own room, the aged figure still in his arms.

Later, when the old scientist had satisfied some of the needs of his body and was sitting on the bed, smoking, his eyes wandered slowly over the rows of books on the shelves about the room, and his eyebrows lifted slightly. "'The Age of Reason', even! The first books I've seen in this world, Jimmy!"

"Nobody reads much, any more, so they don't miss them at the old library. People prefer vision for amusement and the compeller tapes if they need additional information. I started trying to learn things from them, and reading grew to be a habit."

"Um-m-m. So you're another one-eyed man?"

"Eh?"

Bard shrugged, and the bitterness returned to his mouth. "In the country of the blind, the one-eyed man is—killed!" Welles wrote a story about it. Where . . . when . . . I came from, men had emotional eyes to their souls, and my guess is that you've been through enough to develop your own. But this world is blind to such things. They don't want people to see. It's the old rule of the pack: Thou shalt conform! Jimmy, how did all this come to be?"

Jimmy frowned, trying to put it into words. The start had probably been when Aaron Bard tried his newly invented psychicompeller on his son. The boy had liked that way of learning, and stolen other

experimental tapes, building with his cold, calculating little brain toward the future already. erringly, he'd turned to the army, apparently sensing the coming war, and making the most of it when it came. Fifteen years of exhausting. technological warfare had let him induce the educator to furnish the technical men needed, and had seen him bring forth stolen secret of his father's after stolen secret, once the scientist's accidental death had left him alone in possession of Bard's files. With the war's end, the old education system was gone, and boys of twelve were serving as technicians at home until they could be replaced for active duty when old enough.

Those same boys, grown to men and desiring the same things he did, had made possible his move from general to president, and finally to dictator. He'd even adopted the psychicompeller as his heraldic device. And the ever-increasing demands of technology made going back to old methods impossible, and assured him a constant supply of young "realists."

Bard interrupted. "Why? It would have been hard—getting an education was always difficult and becoming worse, which is why I tried to make the compeller—but it would have been worth it when they saw where it led. After all, without such help I managed to find a few things—even if they turned out to be Frankenstein monsters!"

"But you depended on some odd linkage of simple facts for results, and most men can't; they need a multitude of facts. And even then, we still follow you by rote in some things."

"Too easy knowledge. They aren't using it—when they get facts, they don't have the habits of hard thinking needed to utilize them. The compeller can't give those habits; only years of hard, disciplined work can do that. I noticed the meager developments of new fields—but when they began making these . . . uh . . . zombis—"

Jimmy punched a button, and nodded toward the creature that entered in answer. It began quietly clearing the room, removing the evidence of Bard's meal, while the scientist studied it. "There's one. He knows as much as any adult, but he has no soul, no emotions, you might say. Tell him to do something, and he will—but he won't even eat without orders."

"Permanent mechanical hypnosis," Bard muttered, and there was hell in his eyes. Then his mouth hardened, while the eyes grew even grimmer. "I never foresaw that, but—you're wrong, and it makes it even worse! You . . . uh . . . 4719, answer my questions! Do you have emotions such as hatred, fear, or a sense of despair?"

Jimmy started to shake his head, but the zombi answered dully before him. "Yes, master, all those!"

"But you can't connect them with your actions—is that right? You're two people, one in hell and unable to reach the other?"

The affirmative answer was in the

same dull tone again, and the zombi turned obediently and left at Bard's gesture. Jimmy wiped sudden sweat from his forehead. He'd been hoping before that he might fail the compeller education as a release, but this would be sheer, unadulterated hell! And the psychologists must know this, even though they never mentioned it.

"And ten percent of us are zombis! But only a very few at first, until the need for ever more knowledge made the shock of education greater. By then—the world had accepted such things; and some considered them a most useful by-product, since they made the best possible workers." His own voice grew more bitter as he forced it on with the history lesson, trying to forget the new and unwelcome knowledge.

Bard's son had built the monstrous castle with its secret means for spying, and had fled into the passages with his private papers to die when his own son wrested control from him. It was those moldy papers that had shown Jimmy the secret of escape when he'd stumbled into the labyrinth first. After that, the passage of dictatorship from father to son had been peaceful enough, and taken for granted. On the whole, there had been little of the deliberate cruelty of the ancient Nazi regime, and the dictatorial powers, while great, were not absolute. The people were used to it-after all. they were products of the compeller. and a ruthless people, best suited by dictatorial government.

Always the compeller! Jimmy hesitated for a moment, and then plunged into the tale of his own troubles. "So I'm to be made into a beast, whether I like it or not." he finished. "Oh, I could turn you in and save myself. If I were an adult, I would! That's why I hate it, even though I might like it then. It wouldn't be me—it'd be just another adult, carrying my name, doing all the things I've learned to hate! I can save myself from becoming one of them —by becoming one!"

"Requiescat in pace! Let the dead rest in peace! If you wake them, they may learn they've made a ghastly mess of the world, and may even find themselves ruining the only person in all that world whom they like!" Aaron Bard shook his head. wrinkles concentration cutting over the lines of pain. "The weapon you took from me isn't exactly harmless. Sometime, during my temporary insanity, I must have remembered the old secret, since I made it then, and it's atom-powered. Maybe, without a dictator-"

"No! He's weak, but he's no worse than the others; I couldn't let you kill my father!"

"No, I suppose you couldn't: anyhow, killing people isn't usually much of a solution. Jimmy, are you sure there's any danger of your being made like the others?"

"I've seen the results!"

"But have you? The children are given no education or discipline



until they're twelve, and then suddenly filled with knowledge, for which they haven't been prepared, even if pre-adolescents can be prepared for all that-which I don't believe. Even in my day, in spite of some discipline and training, twelve-year-old boys were little hoodlums, choosing to group together into gangs; wild, savage barbarians, filled with only their own egotism; pack-hunting animals, not yet civilized. Not cruel, exactly, but thoughtless, ruthless as we've seen this world is. Maybe with the sudden new flood of knowledge for which they never worked they make good technicians; but that spurious, forced adulthood

might very well discourage any real maturity; when the whole world considers them automatic adults, what incentive have they to mature?"

Jimmy thought back over his early childhood, before the education fizzle, and it was true that he and the other boys had been the egocentric little animals Bard described: there had been thought of anything beyond their immediate whims and wants, and no one to tell them that the jungle rule for survival of the fittest should be tempered with decency and consideration for others. But the books had taught him that there had been problem children and boygangs before the compeller—and they had mostly outgrown it. Here, after education, they never changed; and while the pressure of society now resisted any attempt on their part to change, that wasn't the explanation needed; other ages had developed stupid standards, but there had always been those who refused them before.

"Do you believe that, sir?"

The old man shrugged slightly. "I don't know. I can't be sure. Maybe I'm only trying to justify myself. Maybe the educator does do something to the mind, carefully as I designed it to carry no personal feelings to the subject. And while I've seen some of the people. I haven't seen enough of their private life to judge; you can't judge because you never knew normal people. When I invented it. I had serious doubts about it. for that matter. They still use it as I designed it, exactly?"

"Except for the size of the tapes."

"Then there's a wave form that will cancel out the subject's sensitivity, blanket the impulse, if broadcast within a few miles. If I could remember it—if I had an electronics laboratory where I could try it—maybe your fake immunity to education might be made real!"

Relief washed over the younger man, sending him to his feet and to the panel. "There is a laboratory. The first dictator had everything installed for an emergency, deep underground in the passages. I don't know how well stocked it is, but I've been there." He saw purpose and determination come into the tired face, and Aaron Bard was beside him as the panel became passable. Jimmy turned through a side way that led near the senatorial section of the castle. On impulse he turned aside and motioned the other forward. "If you want an idea of our private life, take a look at our senators and judge for yourself."

The wall became transparent to light and sound in one direction and they were looking out into one of the cloakrooms of the Senate Hall. One of the middle-aged men was telling a small audience of some personal triumph of his: "Their first kid-burned-just a zombi! I told her when she turned me down for that pimple-faced goon that I'd fix her and I did. spent five weeks taking the kid around on the sly, winning his confidence. Just before education, I slipped him the dope in candy! You know what it does when they're full of that and the educator starts in."

Another grinned. "Better go easy telling about it; some of us might decide to turn you in for breaking the laws you helped write against using the stuff that way."

"You can't prove it. I'm not dumb enough to give you birds anything you could pin on me. Just to prove I'm the smartest man in this bunch, I'll let you in on something. I've been doing a little thinking on the dictator's son—"

"Drop it, Pete, cold! I was with a bunch that hired some fel-

lows to kill the monkey a couple years ago—and you can't prove that, either! We had keys to his door and everything; but he's still around, and the thugs never came back. I don't know what makes, but no other attempt has worked. The dictator's got some tricks up his sleeve, there."

Jimmy shut the panel off, and grinned. "I don't sleep anywhere near doors, and there's a section of the floor that can be made interpenetrable, with a ninety-foot shaft under it. That's why I wangled that particular suite out of my father."

"Those are the senators?" Bard asked.

"Some of the best ones." Jimmy went on, turning on a panel now and again, and Bard frowned more strongly after each new one. Some were plotting treason, others merely talking. Once something like sympathy for the zombis was expressed, but not too strongly. Jimmy started to shut the last panel off, when a new voice started.

"Blane's weakling son is dead. Puny little yap couldn't take the climate and working with all the zombis in the mines; committed suicide this morning."

"His old man couldn't save him from that, eh? Good. Put it into the papers, will you? I want to be sure the dictator's monkey gets full details. They were thick for a while, you know."

Jimmy's lips twisted as he cut off suddenly. "The only partly human person I ever knew—the one who taught me to read. He was a sickly boy, but his father managed to save him from euthanasia, somehow. Probably he went around with me for physical protection, since the others wouldn't let him alone. Then they shipped him to some mines down in South America, to handle zombi labor."

"Euthanasia? Nice word for killing off the weak. Biologically, perhaps such times as these may serve a useful purpose, but I'd rather have the physically weak around than those who treat them that way! Jimmy. I think if my trick doesn't work and the educator does things to you it shouldn't, I'll kill you before I kill myself!"

Jimmy nodded tightly. Bard wasn't the killing type, but he hoped he'd do it, if such a thing occurred. Now he hurried, wasting no more time in convincing the other of the necessity to prevent such a change in him. He located the place he wanted and stepped in, pressed a switch on the floor, and set the lift to dropping smoothly downward.

"Power is stolen, but cleverly, and no one has suspected. There are auxiliary fuel batteries, too. The laboratory power will be the same. And here we are."

He pointed to the room, filled with a maze of equipment of all kinds, neatly in order, but covered with dust and dirt from long disuse. Aaron Bard looked at it slowly, with a wry grin.

"Familiar, Jimmy. My son apparently copied it from my old laboratory, where he used to fiddle around sometimes, adapting my stuff to military use. With a little

decency, he'd have been a good scientist: he was clever enough."

Jimmy watched, some measure of hope coming to him, as the old man began working. He cleared the tables of dust with casual flicks of a cloth and began, his hands now steady. Wires, small tubes, coils, and various other electronic equipment came from the little boxes and drawers, though some required careful search. Then his fingers began the job of assembling and soldering them into a plastic case about the size of a muskmelon, filled almost solidly as he went along.

"That boy who taught you how to read-was he educated at the

age of twelve?"

"Of course—it's compulsory. Everyone has to be. Or—" Jimmy frowned, trying to remember more clearly; but he could only recall vague hints and phrases from bits of conversation among Blane's enemies. "There was something about falsified records during the euthanasia judgment proceedings, I think, but I don't know what records. Does it matter?"

Bard shrugged, scribbling bits of diagrams on a scrap of dirty paper before picking up the soldering iron again. "I wish I knew—Um-m-m? In that fifteen-year war, when they first began intensive use of the compeller, they must have tried it on all types and ages. Did any scientist check on variations due to such factors? No, they wouldn't! No wonder they don't develop new fields. How

about a book of memoirs by some soldier who deals with personalities?"

"Maybe, but I don't know. The diary of the first dictator might, if it could be read, but when I tried after finding it, I only got hints of words here and there. It's in some horrible code—narrow strips of short, irregularly spaced letter groups, pasted in. I can't even figure what kind of a code it is, and there's no key."

"Key's in the library, Jimmy, if you'll look up Brak-O-Dite—machine shorthand. He considered ordinary typing inefficient; one time when I thoroughly agreed with him. Damn!" Bard sucked on the thumb where a drop of solder had fallen, and stared down at the tight-packed parts. He picked up a tiny electrolytic condenser, studied the apparatus, and put it down again doubtfully. Then he sat motionlessly, gazing down into the half-finished object.

The work, which had progressed rapidly at first, was now beginning to go more slowly, with long pauses while the older man thought. And the pauses lengthened. Jimmy slipped out and up the lift again, to walk rapidly down a corridor that would lead him to the rear of one of the restaurants of the castle. The rats had been blamed for a great deal at that place, and they were in for more blame as Jimmy slid his hands back into the corridors with coffee and food in them.

Bard gulped the coffee gratefully, as he looked up to see the

younger man holding out the food, but he only sampled that. His hands were less sure again. "Jimmy, I don't know—I can't think. I get so far, and everything seems clear; then—pfft! It's the same as when I first tried atomic power; there are worn places in my mind—eroded by eighty years of death. And when I try to force my thoughts across them, they stagger and reel."

"You've got to finish it! It's almost five, and I have to report back at six!"

Bard rubbed his wrinkled forehead with one hand, clenching and opening the other. For a time, then, he continued to work busily, but there were long quiet intervals. "It's all here, except this one little section. If I could put that in right, it'd work—but if I make a mistake, it'll probably blow out, unless it does nothing."

Jimmy stared at his watch. "Try it."

"You solder it; my hands won't work any more." Bard slipped off the stool, directing the boy's hands carefully. "If I could be sure of making it by going insane, as I did the atom gun, I'd even force my mind through those nightmares again. It would be better than having you take the compulsion with your mind fighting itself. But I might decide to do almost anything else, instead— No, that's the antennae—one end remains free."

The hands of the watch stood at ten minutes of six as the last connection was made and Bard plugged it into the socket near the floor. Then the tubes were warming up. There was no blow-out, at least; the tubes continued to glow, and a tiny indicator showed radiations of some form coming from the antennae. Jimmy grinned, relief stronger in him, but the older man shook his head doubtfully as they went back to the lift again.

"I don't know whether it's working right, son. I put that last together by mental rule of thumb, and you shouldn't work that way in delicate electronic devices, where even two wires accidentally running beside each other can ruin things! But at least we can pray. And as a last resort—well, I still have the atom pistol."

"Use it, if you need to! I'll take you to the back wall of my father's inner office, and you can stay there watching while I go around the long way. And use it quickly, because I'll know you're there!"

It took him three tries to find a hallway that was empty of the guards and slip out, but he was only seconds late as his father opened the door and let him in; the usual secretaries and guards were gone, and only the chief psychologist stood there, his small stock of equipment set up. But the dictator hesitated.

"Jim, I want you to know I have to do this, even though I don't know whether you have any better chance of passing it now than when you were a kid—that's just my private hunch, and the psychologist here thinks I'm wrong. But—well, something I was counting on is

probably stolen by conspiracy, and there's a war brewing in Eurasia against us, which we're not ready for; the oligarchs have something secret that they figure will win. It's all on a private tape I'll give you. I don't know how much help you'll be, but seeing you suddenly normal will back up the bluff I'm planning, at least. We Bards have a historic destiny to maintain, and I'm counting on you to do your part. You must pass!"

Jimmy only half heard it. He was staring at the headpiece, looking something like a late-style woman's hat with wires leading to a little box on the table, and varicolored spools of special tape. For a second, as it clamped down over his face, he winced, but then stood it in stiff silence. In the back of his mind, something tried to make itself noticed—but as he groped for it, only a vague, uneasy feeling remained. Words, and something about a man's face.

He heard the snap of the switch, and then his mind seemed to freeze, though sounds and sights still registered. But he knew that the device in the room so far below had failed! The pressure on his brain was too familiar by description; the Bard psychicompeller was functioning. For a second, before full impact, tried to tear it off, but something else seemed in control of his mind, and he sat rigidly, breathing hard, but unable to stop it. His thoughts died down, became torpid, while the machine went on driving its two hundred million impulses into his

brain every second, doing things that science still could not understand, but could use.

He watched stolidly as the spools were finished, one by one, until his father produced one from a safe and watched it used, then smashed it. The psychologist bent, picked up the last one, and attached it. The face of the man was familiar. "Like to have the brat in front of a burner like those we use in zombi-ing criminals."

Then something in his head seemed to slither, like feet slipping on ice. Numbed and dull of mind, he still gripped at himself, and his formerly motionless hands were clenching at the arms of the chair. Something gnawing inside, a queer distortion, that— Was this what a zombi felt, while its mind failed under education?

The psychologist bent then, removing the headset. "Get up, James Bard!" But as Jimmy still sat, surprise came over his face, masked instantly by a look of delighted relief. "So you're no zombi?"

Jim arose then, rubbing his hands across his aching forehead, and managed a smile. "No," he said quietly. "No, I'm all right. I'm perfectly all right! Perfectly."

"Praise be, Jimmy." The dictator relaxed slowly into his chair. "And now you know— What's the matter?"

Jim couldn't tell him of the assurance necessary, to keep Aaron Bard from firing, but he held his face into a pleasant smile in spite of the pain in his head as he turned to face his father. He knew now—everything. Quietly, unobtrusively, all the things he hadn't known before were there, waiting for his mind to use, along with all the things he had seen and all the conversations he had spied upon in secret.

He had knowledge—and a mind trained to make the most of it. The habits of thinking he had forced upon himself were already busy with the new information; even the savage, throbbing pain couldn't stop that analytical calculating logic. Now he passed his hand across his head deliberately, and nodded to the outer office. "My head's killing me, father. Can't I use the couch out there?"

"For a few minutes, I guess. Doctor, can't you give the boy something?"

"Maybe. I'm not a medical doctor, but I can fix the pain, I think." The psychologist was abstract, but he turned out. The dictator came last, and they were out of the little room, into the larger one where no passages pierced the walls and no shot could reach him.

The smile whipped from the boy's face then, and one of his hands snapped out, lifting a small flame gun from his father's hip with almost invisible speed. It came up before the psychologist could register the emotions that might not yet have begun, and the flame washed out, blackening clothes and flesh and leaving only a limp charred body on the floor.

Jim kicked it aside. "Treason. He had a nice little tape in there, made out by two people of totally opposite views, in spite of the law against it. Supposed to burn me into a zombi. It would have, except that I'd already studied both sides pretty well, and it raised Ned for a while, even then. Here's your gun, father."

"Keep it!" The first real emotion Jim had ever seen on his father's face was there now, and it was fierce pride. "I never saw such beautiful gun work, boy! Or such a smooth job of handling a snake! Thanks be, you aren't soft and weak, as I thought. No more emotional nonsense, eh?"

"No more. I'm cured. And at the meeting of the senators you've called, maybe we'll have a surprise for them. You go on down, and I'll catch up as soon as I can get some amido-pyrene for this headache. Somehow I'll think of something to stop the impeachment they're planning."

"Impeachment? That bad? But how . . . why didn't you—"

"I did try to tell you, years ago. But though I knew every little treason plot they were cooking then, you were too busy to listen to a non-adult, and I didn't try again. Now, though, it'll be useful. See you outside assembly, unless I'm late."

He grinned mirthlessly as his father went down the hall and away from him. The look of pride in his too-heavy face wouldn't have stayed there if he'd known just how deep in treason some of the fine senator friends were. It would



take a dozen miracles to pull them through. Jim found the panel he wanted, looked to be sure of privacy, and slipped through, racing quickly down the corridor.

But Aaron Bard wasn't to be found! For a second he debated more searching, but gave it up; there was no time, and he could locate the old man later. It wasn't important that he be found at the moment. Jim shrugged, and slipped into one of the passages that would serve as a short cut to the great assembly room. The headache was already disappearing, and he had no time to bother with it.

They were already beginning session when he arrived, even so,

and he slipped quietly through the dictator's private entrance, making his way unnoticed to the huge desk, behind a jade table screen that would hide him from the senators and yet permit him to watch. He had seen other sessions before. but they had been noisy, bickering affairs, with the rival squabbling and shouting names. Today there was none of that. They were going through the motions, quite plainly stalling for time, and without interest in the routine. This meeting was a concerted conspiracy to depose the dictator, though only the few leaders of the groups knew that Eurasian bribery and treason were the real reasons behind it.

It had been in the making for vears, while those leaders carefully built up the ever-present little hatreds and discontents. Jim's status had been used to discredit his father, though the man's own weaknesses had been more popular in distorted versions. As Jim looked, he saw that the twelve cunning men lured to treason by promises of being made American Oligarchs, though supposedly heading rival groups, were all still absent; that explained the stalling. Something was astir, and Jim had a hunch that the psychologist's corpse would have been of no little interest to them. The two honest group leaders were in session, grim and quiet; then, as he looked, the twelve came in, one by one, from different entrances. Their faces showed no great sense of defeat.

Naturally. The dictator had no chance; he had tried to rule by dividing the now-united groups and by family prestige, and had kept afloat so long as they were not ready to strike: the methods would not stand any strain, much less this attack. He had already muffed one attack opportunity while the leaders were out. A strong man would have cut through the stalling and taken the initiative; a clever orator, schooled in the dramatics and emotions of a Webster or a Borah, might even have controlled them. But the dictator was weak, and the compeller did not produce great orators: that is incompatible with emotional immaturity.

But the dictator had finally been permitted to speak, now. He should have begun with the shock of Jim's adulthood to snap them out of their routine thoughts, built up the revival of Aaron Bard and his old atomic power work, to make them wonder, and then swept his accusations over them in short, hard blows. Instead, he was tracing the old accomplishments of the Bard family, old, familiar phrases with no meaning left in them.

Jim sat quietly; it was best that his father should learn his own weakness, here and now. He peered down to watch the leading traitor, and the expression on the man's face snapped his head around, even as his father saw the same thing, and stopped speaking.

An arm projected from the left wall, waving a dirty scrap of paper at them, and Jim recognized the dirty sheet Bard had used for his diagrams. Now the arm suddenly withdrew, to be replaced by the grinning head of Aaron Bardbut not the face Jim had seen; this one contained sheer lunacy, the teeth bared, the eyes protruding. and the muscles of the neck bunched in mad tension! As he watched. the old man emerged fully into the room and began stalking steadily down the aisles toward the dictator's desk, the atom gun in one hand centered squarely on Jim's father.

He had full attention, and no one moved to touch him as his feet marched stealthily forward, while the scrap of paper in his hand waved and fluttered. Now his voice chopped out words and seemed to hurl them outwards with physical force. "Treason! Barbarism! Heathen! Idolaters!"

For a second, Jim took his eyes from Bard to study his father, to spring from the chair in a frantic leap as he saw the dictator's nerve crack and his finger slip onto one of the secret tiny buttons on the desk. But the concealed weapon acted too quickly, though there was no visible blast from it. Aaron Bard uttered a single strangled sound and crumpled to the floor!

"Get back!" Jim wasted no gentleness on his father as he twisted around the desk to present the crowding senators with the shock of his presence at assembly on top of their other surprise. He bent for a quick look. "Coagulator! Who carries an illegal coagulator here? Some one of you, because this man is paralyzed by one."

Mysteriously, a doctor appeared, and nodded after a brief examination. "Coagulator, all right. His nerves are cooked from the chest down, and it's spreading. Death certain in an hour or so."

"Will he regain consciousness?"
"Hard to say. Nothing I can do, but I'll try, if someone will move him to the rest room."

Jim nodded, and stooped to pick up the scrawled bit of paper and the atom gun. He had been waiting for a chance, and now fate had given it to him. The words he must say were already planned, brief and simple to produce the impact he must achieve, while the assembly was still disorganized and uncertain; if oratory could win them, now was the time for it. With a carefully stern and accusing face, he mounted the platform behind the desk again, rapped for order, and began, pacing with words in a slow rhythm while measuring the intensity for his voice by the faces before him.

"Gentlemen, eighty years ago Aaron Bard died on the eve of a great war, trying to perfect a simple atomic release that would have shortened that war immeasurably. Tomorrow you will see in your newspapers how that man's own genius preserved his body and enabled us to revive him on this, the eve of an even grimmer war.

"Now, a few moments ago, that same man gave his life again in the service of this country, killed by the illegal coagulator of some cowardly traitor. But he did not die in vain, or before he could leave us safely to find his well-earned rest. He has left his mark on many of us; on me, by giving me the adulthood all our scientists could not; on some of you, in this piece of paper, he has left a grimmer mark—"

"You saw him emerge from a solid wall, and it was no illusion, however much he chose to dramatize his entrance; the genius that was his enabled him to discover a means to search out your treason and your conspiracy in your most secret places. You heard his cry of treason! And one among you tried to silence that cry, forgetting that written notes cannot be silenced with a coagulator.

"Nor can you silence his last and greatest discovery, here in this weapon you saw him carry—portable atomic power!

"Now there will be no war; no power commit such suicide against nation whose men shall be equipped as ours shall be. may be sure that the traitors among you will find no reward for their treason, now. But from them, we shall have gained. We shall know the folly of our petty, foreigninspired hatreds. We shall know the need of cleansing ourselves of the taint of such men's leadership. We shall cease trying to weaken our government and shall unite to forge new bonds of strength, instead.

"And because of that unintended good they have done us, we shall

be merciful! Those who leave our shores before the stroke of midnight shall be permitted to escape; those who prefer to choose their own death by their own hands shall not be denied that right. And for the others, we shall demand and receive only the fullest measure of justice!

"In that, gentlemen. I think we can all agree."

He paused then for a brief moment, seeming to study the paper in his hand, and when he resumed, his voice was the brusque one of a man performing a distasteful task. "Twelve men—men who dealt directly with our enemies. I shall read them in the order of their importance: First, Robert Shweinende! Two days ago, at three o'clock in his secretary's



office he mer a self-termed businessman named Yamimoto Tung, though he calls himself—"

Jim went on, methodically reciting the course of the meeting, tensing inside as the seconds stretched on; much more and they would know it couldn't all come from one small sheet of paper!

But Shweinende's hand moved then, and Jim's seemed to blur over the desk top. Where the senator had been, a shaft of fire-atomic fire-seemed to hang for a second before fading out into nothing. Iim put the gun back gently, and watched eleven men get up from their seats and dart hastily away through the exits. Beside him, his father's face shone with great relief and greater pride, mixed with unbelieving wonder as he stood up awkwardly to take the place the boy was relinquishing. The job had been done, and Jimmy had the right to follow his own inclinations.

Surprisingly to him, the still figure on the couch was both conscious and sane, as the boy shut the door of the little room, leaving the doctor outside. Aaron Bard could not move his body, but his lips smiled. "Hello, Jimmy. That was the prettiest bundle of lies I've heard in a lot more than eighty years! I'm changing my saying: from now on, the one-eyed man is king, so long as he taps the ground with a cane!"

Jimmy nodded soberly, though most of the strain of the last hour was suddenly gone, torn away by the warm understanding of the older man, and relief at not having to convince him that he was still normal, in spite of his actions since education. "You were right about the compeller; it can't change character. But I thought...after I shot the psychiatrist— How did you know?"

"I had at least twenty minutes in which to slip back and examine my son's diary, before your education would be complete." His smile deepened, as he sucked in on the cigarette that Jimmy held to his lips, and he let the smoke eddy out gently. "It took perhaps ten minutes to learn what I wanted to know. During the war his notes are one long paean of triumph over the results on the pre-adolescents. dissatisfaction at those who were educated past twenty! And he knew the reason, as well as he always knew what he wanted to. Too much information on a young mind mires it down by sheer weight on untrained thoughts, even though it gives a false self-confidence. But the mature man with his trained mind can never be bowed down by mere information: he can use it. No, let me go on. Vindication of my compeller doesn't matter; but this is going to be your responsibility, Jimmy, and the doctor told me I'm short of time. I want to be sure. In twenty years-but that doesn't matter.

"The compeller is poison to a twelve-year-old mind, and a blessing to the adult. You can't change that overnight; but you can try, and perhaps accomplish a little. By rights I should repair the damage I helped

cause, but I'll have to leave it to you. Be ruthless, as you were now—more ruthless than any of them. A man who fights for right and principle should be. Tap the ground with your cane! And sometimes, when none of the blind are around, you can look up and still see the stars. Now—"

"You never were insane in there?"

The old man smiled again. "Naturally. I couldn't look on and see the only one of my offspring that amounted to anything needing help without doing something, could I? I threw in everything I could, knowing you'd make something out of it. You did. And I'm not sorry, even though I wasn't exactly expecting—this. How long after my heart begins missing?"

"A minute or two!" Aaron Bard obviously wanted no sympathy, and the boy sensed it, and held back the

words, hard though he found it now. Emotions were better expressed by their hands locked together than by words.

"Good. It's a clean, painless death, and I'm grateful for it. But no more revivals! Cremate me, Jimmy, and put up a simple marker—no name, just a ONE-EYED MAN!"

"Requiescat in Pace—A One-Eved Man! I promise!"

The old head nodded faintly and relaxed, the smile still lingering. Jimmy swallowed a lump in his throat and stood up slowly with bowed head, while a tumult of sound came in from the great assembly hall. His father was abdicating and they were naming him dictator, of course. But he still stood there, motionless.

"Two such stones," he muttered finally. "And maybe some day I'll deserve the other."

THE END.

### IN TIMES TO COME

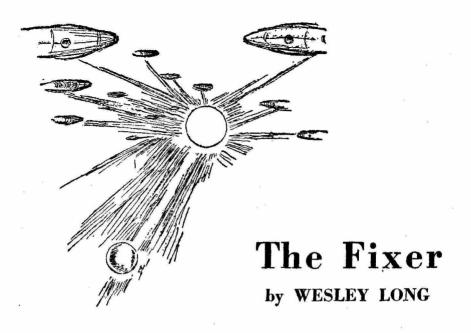
The lead-off yarn for next month is "Pandora's Millions," by George O. Smith. It's a Venus Equilateral story—which has only one scene on Venus Equilateral, as I recollect. It starts about two minutes after the last V-E story, "Special Delivery," ends. Don Channing & Co. are coming out of the courtroom, and meet Keg Johnston, Channing's friend, and president of the Interplanetary Shipping Co. Says Keg: "You think you won?"

"I know I did!" says Channing.

"Wrong—you lost. You lost Venus Equilateral, and the whole world as we know it. Look, friend, what are you going to use for money? Your machine can make endless duplicates of anything."

"Pandora's Millions," you may gather, concerns the hay-wire world where no thing has any more value than any other thing—and that second thing may be a handful of dirt. Everybody has everything he needs. So how do you get along? How can you—? What do you use for money?

THE EDITOR



Sandra Drake was a weak reed on which to rely—but she could bring help in their crisis. They knew the cure for their plague—the exact chemical. But they couldn't make it, because one of the essential intermediates couldn't exist. Calling Earth—for help—was a project!

#### Illustrated by Kramer

Sandra Drake sat in her perfect apartment on Telfu, and cursed in an unladylike manner. She was plying a needle with some difficulty, and the results of her work were decidedly amateurish. But her clothing was slowly going to pieces, and there was not a good tailor in nine light-years of Sandra Drake.

The Telfan tailors didn't understand Solarian tailoring; Sandra was forced to admit that they were good—for Telfans. But for Solari-

ans, they didn't come up to the accepted standards.

They had tried, she gave them credit for that. But the Telfan figure did not match the Solarian, especially the four-breasted female Telfan woman did not match Sandra's thin-waisted, high breasted figure. Her total lack of the Telfan skin; part feathers, part hair, but actually classifiable as neither, caused a different "hang" to the clothing. Telfans wore practically

nothing because of the pelt and though Sandra's figure was one of those that should have been adorned in practically nothing, Telfu was not sufficiently warm to go running around in a sunsuit.

And making over Telfan clothing to fit her was out of the question. She stood half a head above their tallest women, and the only clothing that would have fit was clothing made in outsizes for extremely huge Telfan women. Needless to say this size of garment was shapeless.

Sandra finished her mending, tried on the garment and made a wry face. "I used to curse the lack of humans here," she told her image in the mirror, "but now I'm glad I'm the only one. I'd sure hate to have any of my old friends see me looking like this."

The image that repeated silently was not too far a cry from the Sandra Drake that had called the Haywire Queen in for a landing on Telfu some months ago. But they hadn't waited, and she now knew why. Well, she was forced to admit that her try at either trapping them here or getting off with them had failed, and therefore she had been outguessed.

That made her burn. Being outguessed by a man was something that Sandra didn't care to have happen. She could live through it; but it was the aftermath that really hurt. The Telfans came to understand her too well after that incident. They no longer looked upon her as a leading figure in her system. They knew that her knowledge of Solarian science was sketchy and incomplete.

Therefore she had lost her hold upon Telfu, and was now forced to do her own mending.

On the other hand, Sandra Drake was an intelligent woman. Her contempt for the Telfan language was gone. It went on that memorable day when she discovered that everyone who understood any Terran had gone to greet the landing Haywire Queen and had left her unable to convey her desires. From that time on, Sandra plied herself and was quite capable of conversing in Telfan, and fluently.

So Sandra Drake had been living with the Telfans for several months. She had been forced to live with her wits and her mind and she found it interesting. Telfans were quite cold to her charms, which made her angry at times; on Terra she was used to admiration from anything masculine from fourteen to ninety-eight. Below fourteen they didn't know any better and over ninety-eight they didn't care, but the years between were aware of Sandra Drake. On Telfu, posturing, posing, and offering had no effect. They looked upon her as an encyclopedia; an animate phonograph, which, upon proper stimulation, could be made to sound interesting.

They had their machinery of action, too. Either Sandra assisted them—or she did not find things easy. It was adjustable, too, and the better assistance she gave, the better she found things.

Well, thought Sandra, it has been interesting—

She was startled by a knock upon her door. She admitted two Telfan men and a Telfan woman. The woman she knew.

"Yes, Thuni?" she asked the woman.

"Sandrake," announced the woman, putting the Telfan pronunciation on the Terran name, "These are Orfall and Theodi, both of whom are among the leading medico-physicists of Telfu. They desire your help."

Sandra reflected quickly. After all, this ability to be of assistance did give her a sop to her vanity. The fact that as little as she really knew of Terran science she could assist, and at times direct, gave her first feeling of real self-assurance.

"I shall, if I can," she told them.

"You, in spite of your untrained mind, have been extremely valuable," Orfall said simply. "While you do not know the details, you at least have some knowledge of the channels of Terran science, and you may, and have, explained down which channel lies truth, and along which line of endeavor lies but a blank wall. That in itself is valuable."

"Another item of interest," said Theodi, "is the fact that the books left us by the *Haywire Queen* are ponderous and often obscure; they assume that we have a basic knowledge which we have not. You have been able to direct us to the proper place in them to find the proper answer to many of our questions."

"I see," said Sandra. All too seldom had anyone told her she was valuable and interesting. It had been more likely a statement of her headstrong nature, her utter uselessness, and her nuisance value.

"As you know, we of Telfu are slightly ahead of you in chemistry. Yet there are things in chemistry that can not be solved without an advanced knowledge in the gravitic spectrum that Terra has exploited. Perhaps it was the lack of a channel in the gravitic that drove us into higher chemical development; but we are planet-locked until your people return to remove the block."

"Go on," said Sandra impatiently. "I gather that you are in trouble of some sort?"

"We are, indeed. A plague of ... ah, there is no word for it in Terran"—he switched to Telfan, "Andryorelitis," and back again to Terran—"which is an air-borne disease of the virus type. No innoculation has been discovered, and no immunity zone can be established. Telfu is in danger of halving the population."

"Bad, huh?"

"It is terrible. It strikes unknown. Its incubation period is several days, and then the victim gets the first symptoms. Nine days later, the victim is dead. Unfortunately, the victim is a carrier of andryorelitis during the incubation period, and therefore isolation is impossible."

"Sounds like real trouble to me," said Sandra. "Will examination reveal it?"

"Of course," answered Orfall. "But what planet can examine the

population daily?"

"I see the impossibilities. Then what do you hope? We have nothing that will combat it; knowing nothing of it in Sol would preclude any possibility. What can we do?"

"To return to chemistry," said Theodi, "I will explain. Our chemico-physicists have predicted the combination of a molecule which will combat the virus selectively. It is a complex protein molecule of unstable nature—so unstable, unfortunately, that it will not permit us to compound it. We have used every catalyst in the book, and nothing works. Follow?"

"I think so," said Sandra "What keeps it from forming?"

"As I said, it is very unstable." The atomic lattice appears to be structurally unsound. That happens in a lot of cases, you know. At any rate, we can make this molecule—and have made it successfully. But its yield is less than four ten-thousandths of one percent, and the residue precipitates out in an insoluble compound that can not be reprocessed."

"Otherwise you would keep the process going until completion?"

"Precisely. If reprocessing would work, we could leave the batch to cook until all of it went into combination. Or we could add fresh 'mix' to the processing batch and make the process continuous. But the stuff is not re-processable. We must complete each batch, and then go on a long process of fractionation to distill the proper

compound out of the useless residue."

"I can see that a process of that inefficiency would be bothersome," said Sandra.

"Not bothersome, Sandrake. Im-Imagine going into a project giving about .000,37% vield for two hundred fifty billion Telfans. The required dose of the antibody is forty-seven milligrams. Call it fifty, for round numbers, Sandrake, and you get a total figure of one trillion, two hundred-fifty billion milligrams, or one million two hundred fifty thousand kilograms. At four ten-thousandths of one percent yield, we'd have to process something like three hundred billion kilograms of raw material and then rectify it through that long and laborious process of fractional crystallization, partial electrolysis, and fractional distillation-with a final partial crystallization. Processing that much raw material would be a lifetime job at best. Doing it under pressure, with the planning and procurement problems intensified by the certainty of the few short weeks we have . . . ah. Sandrake, it is impossible."

"What is this trouble specific-

ally?"

"The final addition of silicon. It will not enter the compound, but forces something less active from the combination."

"Making it useless?"

"Right."

"You've tried it?"

"And it works," nodded Orfall.

"And knowing that you of Terra have some wonders in science, we would like to know-"

"You see," interrupted Orfall, "they've figured that the catalyst would be less than sixty-one percent efficient, if we could combine the silicon with it and let it replace into the other compound. That would work. But again we are stuck. The catalyst is stable as it is. What has Terra done to assist in forcing combination in unstable compounds?"

"Must be something," said Sandra, thoughtfully. "May I have a moment to think?"

"Certainly."

"And one thing more. Haven't you anything that even resembles tobacco on this sterile planet?"

"I'm afraid not," said Theodi. "Believe me, we have sought it."

"Thanks," said Sandra. "I know it was for me. But, fellows, I think better with a cigarette."

"We have analyzed the one you gave us, and haven't found a similar weed—"

"O.K., I'll do my thinking in a higher plane," smiled Sandra.

A thought, fleeting as the touch of a moth's wing, crossed Sandra's mind. She fought to reclaim it. It had some association with an experience—some experience in which she had failed, somewhere.

Recently? It might have been.

Long ago?

Sandra didn't think so.

She sat there silent, and the Telfans left with a short statement to the effect that she might be able to think better alone. They would return later.

It had to do with something highly scientific; something of a nature that staggered her imagination. It was coupled with something vast, something deep, something complex.

Her eyes fastened on a spot of brilliant light, reflected from a polished and silvered glass vase at her bedside, and as she sat there with her eyes unseeing, deep in concentrated thought, her mind focused upon the one thing of vastness that she had been involved in.

Sandra's mind was good, in spite of her inferiority complex. It was sharp, retentive, and above all. imaginative. It is a point for speculation whether the imaginative qualities might not have been responsible for her antics; certainly her escapades were the result of some imaginative desire to excel. At any rate, she fastened her eyes on the spot of light, and concentrated herself into a partial selfhypnosis. The train of thought went on before her unseeing eyes with the vividness of a color moving picture, and she was not living the scene, but seeing herself live through a train of events that seemed to jump the unimportant parts like a well-planned motion picture.

Her semihypnotized mind seemed to know the right track, though Sandra's wide-awake mind either ignored the key to the problem or was not certain of the right path to follow.

She was in a room of steel. Steel and machinery and gleaming silver bars. There was some chaos there, too. The silver busbars had lost their die-straightness, and in one place, a single lamination of the main bus hung down askew. It was about a foot wide and one inch thick, and the nine-foot section that hung from the ceiling was slightly lower than the top of her head.

There was blood on the sharp corner, and Sandra looked down to see the red splotch on the floor. She shuddered.

Cables ran in wriggly tangles across the floor. Some were still smoking from some overload, and others, still new from their reels, were obviously part of a jury-rigged circuit. Boxes of equipment were broken open and their contents missing, though the spare parts in the boxes were intact. The whole scene spelled—

Trouble!

The floor was not level; a slight tilt made standing difficult, until a man from some other room shouted:

"The mechanograv is working—hold on!"

And the floor rotated until it was the usual, level platform. The huge busbar swung gently on its loose mooring like a ponderous, irresistible mass.

And there was a man who came striding in. His contempt for her still hurt, and Sandra winced. Even in that motion-picture dreaming, wherein the girl in the picture seemed apart from Sandra Drake, the ire vented upon the red-headed image made Sandra writhe in sympathy.

And then she heard the words

come from the man's lips. They were clear and concise, and seemed to come from the man himself instead of from within her own memory:

"The electronic charge is great enough to force an inert element—xenon—to accept an additional electron in its ring-system. This permits combination with active elements such as bromine. When xenon-bromide forms, we know that our intrinsic charge is highly electronegative. See?"

The scene within Sandra's mind dissolved, and she shook her head. It cleared, but the words remained.

"Orfall," she called. "Theodi! Thuni—bring them here!"

They returned. "McBride," she said. "He can do it!"

"How?" asked Theodi skeptically.

"You've read their books," said Sandra Drake. "You know the principle of the Plutonian Lens—and also that the alternating stations require terrible electronic charges to maintain the lens that focuses Sol on Pluto. They check that with the formation of xenon-bromide for negative, and decomposition of tetrachloro dibromo-methane for the positive charge. They can do it."

"Can't they do it a-planet?" asked Orfall sadly.

"Not unless they can raise the whole planet to a high negative charge," snapped Sandra. "What do you think?"

"I don't know-none of us do. Can they?"

"No."

"Then-?"

"We'll call them, tell McBride what's the matter and what we need. He'll fix it."

"It sounds like a fool's gesture to me," said Theodi.

"Utterly impossible. How are we going to get in touch with them in the first place?"

"Look," said Theodi. "We can call them. See what McBride says and put the problem to them. If there's a way out, fine. If not, we've lost nothing."

"But how are we going to call them over nine light-years of space?"

"Ah-yes," said Theodi. "We

"Maybe I can," said Sandra. "That'll be my contribution. I think I can call them."

"Nine light-years—" objected Theodi.

"Remember that the gravitic spectrum propagates at the speed of light raised to the 2.71828... th power. That'll make talking to Terra like calling across the room. May I try?"

"You think they'll be listening for you?"

"Can't miss," said Sandra with a positive gesture. "My ship, the Lady Luck, is equipped with the standard communications set. It puts out right in the middle of the main communications band of the electrogravitic. If I can get enough power to beam towards Sol, it'll hit them right in the middle."

"You intend to use the set in the Lady Luck?"

"Overloaded to the utmost. They tell me that they'll take one hundred percent overloads for an hour. Make that one thousand percent, and it may last ten minutes. Ten minutes is all I need to give them our trouble—they have recorders if McBride isn't there to hear it in person."

"Where are you going to get that

power?" asked Theodi.

"From you."

"Impossible, Sandrake. You know that there is not sufficient power available to make such a program possible."

"Ridiculous. The resources of

a planet are unmeasurable."

"Perhaps so," said Theodi. "But remember that our power, like Terra's power, is spread out all over the face. The transmission of power such as you will require would be impossible because the line losses will be greater than the power input. It might be possible to connect the networks together and draw the entire power output of Telfu into one district, but line losses would prohibit its operation."

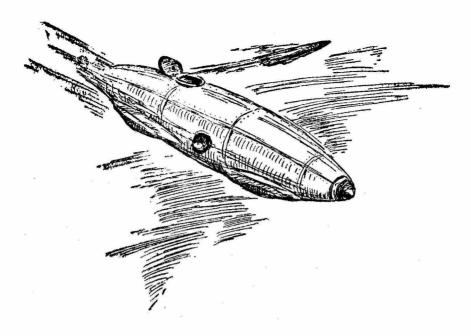
"I only need ten minutes maximum," said Sandra.

"You're asking us to sacrifice—? You mean—overload every plant within efficiency-distance of your ship until it breaks down?"

"What have you to lose?"

"Can we do it?" asked Orfall.

"Of course," said Sandra. "You run your machinery at low load until it is running at ten times the



velocity, and then I cram on the power. Momentum will carry me through."

"And if one machine goes, under that load, the entire district will go

completely dead."

"Oh no," said Sandra. "The closer and most powerful one will not be used. That one will be used to talk to the boys when they arrive. They'll only have a distress signal, and the details must be held until they come investigating. They can't land, and so we'll have to tell 'em the story while they're in space. We'll need that power."

"Small consolation. Then Indilee will be an oasis of power in a radius of powerless country."

Sandra looked Theodi in the eye and said in a cold voice:

"Then go on out and die with

the rest of your kind. What good will your machinery do you if you're all dead?"

"This is a democracy, Sandrake. We cannot just take the machinery and the equipment of others—even to save ourselves."

"How's your red tape factory?" she asked with a smile.

"Meaning?"

"Either you get those power plants or die. I don't care if you steal them, buy them, or borrow them. But get them—and quick."

"But there is a chance to save

Telfu," suggested Orfall.

"Sensible fellow," smiled Sandra. In her mind she cursed the whole planet. This was a place for Sandra to undulate a bit; to turn on those two-million kilovolt-ampere eyes; to stretch one rounded arm

out straight, putting the other hand below the ear and raising the elbow to a level just above those eyes and shielding the victim from the warmth in them. This showed off Sandra's svelte figure to perfection, and few men in Sol could have refused Sandra anything after that perfect performance.

But they were very few.

The Telfan ideal of beauty did not include Sandra Drake's perfection. She could have postured from now until galaxy's end, and they wouldn't have known her intent. Against their women, Sandra was alien—not sickeningly ugly or deformed, but alien and acceptable—and totally undesirable.

Sandra sighed, told the subconscious mind not to bother with the spotlights and provocative sultriness, and tried to think her way to the mastery of these Telfans.

"Couldn't we divert the electrical supply plants across Telfu?" objected Theodi. "Seems to me—"

"Not a chance," said Sandra. "You have no idea of the power required. I must shoot the works all at once. The set, the generators, and the supply lines will all go out at once. That'll give me ten minutes, I hope."

"But the dissipation of such power— Where can we collect it?"

"There's only one place on Telfu. That's in the power room of the Lady Luck. That is still intact?"

"Yes. Handled, inspected, photographed, and manipulated without

driving power, of course, but it is still intact."

"Should be," commented Sandra wryly. "After all, my trouble was not being able to make the drive work. Couldn't get any push. Used up my entire stock of cuprafum. So, do we?"

"I hate to say 'yes,' " said Theodi.

"Look," said Sandra, realizing something for the first time. "We have lots of gravitic machinery. Give me your useless power plants and I'll see that you get gravitic machinery to replace them."

"Um-m-m."

"Look, Theodi, you're used to thinking in Telfan terms—which means no gravitics. Think in Terran terms. You are no longer alone in the universe. You are in contact with a race that has gravitic power."

"Well—"

Sandra smiled. "Take it or leave it-and die," she told him. "Think of it. Andryorelitis comes like a thief in the night, giving no warning. Like the black wings of a gigantic, clutching bat, silent and ominous and unseen it comes and spreads its horde of hell on the city. Men go on in their way, meeting other men and inoculating them, passing the germ of death to whomever the black visitor may have missed on his visit. Men take it to their families and spread it from hand to hand, from lip to lip, from mother to babe to grandparent and beyond. The unborn is as cursed as the almost-dead, for it is within their bodies. The days

pass in which every soul is given the opportunity of catching and spreading the dread disease.

"Then in this peaceful, unawareness of the terror, nine days pass and one sees a red spot on his arm. He shies away from his friends not knowing that they, too, have red blotches. The city is made of slinking men, ashamed women, and scared children. The newspaper headlines scream of the plague, but none will buy, for they fear inoculation on the part of the newsboy. They fight and fear one another, and the plague has its way, spreading across the city like the falling of night and missing none.

"The Grim Reaper swings his sharp scythe, and the populace falls

like shorn wheat.

"And the stricken city becomes a place of horror. The smell of rotting bodies taints the air and makes life impossible for those unlucky few who have not been given the peace of death. None are interested in the cries of the dying, and no one sees the sunken cheeks, the withered bodies, the redding flesh. Do you like that picture, Theodi?"

"You speak harshly, Sandrake."
"You paint a prettier one," said Sandra, scorning him. "Go home and dream. Let your imagination roam—or haven't you Telfans got imagination?"

"We have, but-"

"You utter fool! To stand there like a stick of wood between Telfu and some lumps of worthless metal! Like the drowning man that clutched his gold—which pulled him under. Fool's gold. Theodi."

"There is much in what she says, Theodi," added Orfall.

"It is hard to think, sometimes,"

said Theodi slowly.

"Men!" sneered Sandra. "The whole sex is the same, here or on any inhabited planet. You know so much! Your vaunted power of reasoning is so brilliant. You pride yourselves on your inflexible wills or your willingness to accept new ideas, depending upon which your utter self-esteem thinks is best to exhibit at the instant. Thuni, what do you think?"

"The metal is of little importance to dead men," said Tuni promptly. "And you claim that Terra and Pluto have machines in abundance.

The answer is obvious."

"You see?" said Sandra trium-

phantly.

"I've forgotten," admitted Theodi. "I'd been taught from childhood that high power was hard to get. It is hard to think that another star has it a-plenty and is willing, and able, to give us enough for our needs. It is a revolutionary thought and tems unreal. A story, perhaps. Yes, Sandrake, you shall have your power."

"Good," said Sandra, taking a

"Good," said Sandra, taking a deep breath. "And thanks. I'll also need your best students for the

job."

"Our best are poor enough. Gravitics were known in theory only. A detectable phenomenon, utterly useless. We could not pass the initial doorway—the power generating bands—because of our satellite's absorption of the primary effects. To study the higher and

more complex effects was impossible save in theory. But you shall have them."

"I have some practical working knowledge of the stuff," said Sandra. "One can't live and work with McBride and Hammond and the rest without getting a bit of it. Oh, I was only with them for a few weeks at best, but they are ardent teachers. I'll get along with the help of your students."

"You're certain?"

"Not certain—but fairly sure. At best, you have nothing to lose and everything to gain."

"I think we have misjudged you," said Theodi. "You're

fundamentally fine-"

"Thank you," said Sandra, simply. "Convincing you was the hardest job I've ever done, believe me."

"Convincing the Terrans—?"
"Will be the second hardest job.
Darn it, we can't use television."

McBride shook his head at Steve Hammond. "Don't believe it," he said.

"You don't."

"No, I don't. Drake has some-

thing up her sleeve."

"It's a pretty big sleeve, then," grinned Hammond. "Rigging anything to call from Telfu to Sol is no small potatoes."

"She overloaded everything in sight. That'd about make it right," said McBride. "It went blooey right in the middle of the third sentence—'McBride or Hammond: Telfu in grip of serious epidemic. Need highly charged laboratory to

prepare mis-valenced compound for synthetic serum. Danger is imminent, so implore your help for the lives of—' and that's all. Either she's as dramatic as Shakespeare, or this is the real juice."

"And you think it is joy-juice."

"Her past record—and yet we can't afford to pass this up. She should know, though, that if this is the malarkey, she'll be scorned out of the system. Both systems."

"She wrecked the lens—and she's still here," reminded Hammond.

"'Here' is right," said the pilot cheerfully. "In case you birds are wondering about our position, Telfu is right below us by ten million miles."

"Suppose she's got anything left of that set?" asked McBride.

"Imagine so. The thing couldn't have gone to pieces like the Wonderful One Horse Shay. Give a call and see. If Sandra's not kidding, she'll be listening."

"Kidding or not," laughed Mc-Bride, "Sandra will be listening."

Hammond turned on the communications set and coughed into the microphone, watching the meters swing. Then, satisfied, he said: "This is the Haywire Queen answering S. D. I. from Telfu. Calling Sandra Drake. If you are listening, break in. This is Hammond of the Haywire Queen listening for a repeat of previous S. D. I." Hammond broke into Telfan and repeated the message.

Then the answer-light winked on the panel and he heard:

"This is Sandra Drake. Is it really you?"

"No," said Hammond. "Just a reasonable facsimile. What's the matter?"

"Oh!" said Sandra. There was a world of feeling in the word. "This has been the longest seven days in my life. It worked, then."

"What worked then?"

"The communications set."

"Obviously. What did you do to it?"

"Not much, personally. I sort of managered it, though. They lent me their best gravitic students and we went to work on the thing. We remade everything in the set—everything that could stand it, that is—about four times their size. That's where I came in. Some things couldn't be increased in size without ruining the tuning, and I knew which ones. Is my output all right?"

"Shaky, but strong enough for service."

"I'm running without an output stage. We used the output stage to drive a super-power stage made of the beefed-up parts and when the works went blooey, it took the Telfan output and my output with it. I'm running off to my own driver stage."

"You've been a busy little girl," said Hammond. "What did you use for power?"

"I talked them into giving me every power plant in the district so that I could call you. It all went in eight minutes flat. The Lady Luck is a mess—again."

"Are you brave or foolish?" asked Hammond.

"Both," answered Sandra. "After all, this is no tea party. There isn't a good generator on the Lady Luck; I ruined them all trying to call you. Can you understand how urgent this is?"

"I think so," said Hammond.
"How did you wreck the whole shooting-match?"

"I used the gravitic generators to generate local fields and used 'em as communications-band reflectors. Part of it was theory on the part of the Telfans and part of it was ideas given me by your experiments with the super-drive. Anyhow, I'll bet that Soaky is fifty degrees hotter, now, with all the soup we put into the transmitter. That'll make your problem easier—hev?"

"Yup," smiled Hammond. "Just like the guy whose only reason for sending telegrams was that he hated to see the mail-carrier work so hard."

"Well, fifty degrees is one percent of the way, anyway." "That's right," grinned Ham-

"That's right," grinned Hammond. "But look, we're killing valuable time if this is as important as it sounds. What's needed?"

Sandra explained.

"And you say the silicon won't combine? Shucks, we can do that all right," said John McBride.

"Fine."

"Our problem is delivering the goods."

"Why?"

"Name me a container that will

carry the electronic charge."

"Oh? I was thinking-"

"Don't bother," said McBride.
"There isn't anything better than
ten million miles of pure and absolute space. She'll corona, and then
arc, and then she'll assume the normal charge and the stuff will come
unstuck again. And you couldn't
possibly send every Telfan out into
space for a treatment. There
aren't enough years in a century
to do that."

"First, we'll have to do away with Soaky," said Hammond.

"We can do that," said McBride.
"The converted spacecraft are
about ready. We can get 'em off
in twenty-four hours. But landing this compound is the tricky job.
How are we going to do it?"

"Let's assume that we can think of something and get the rest of this yarn. How do you feel, Sandra?"

"Tired, sort of. I've been busy."

"I gather."

"But this slight relaxation is doing me a lot of good. Is the Lady Thani with you? Her sister, Thuni, asked me to ask."

"She and her husband are on Terra. We didn't pass that way. But you may tell Thuni that they are well, happy, and being treated with Terra's best. Our main trouble is shooing away vaudeville agents, flesh merchants, and screwball politicians who either want to tie their wagon on behind or run their wagon up against."

"You'll never get rid of them," said Sandra. "Are they pointing

with pride or viewing with alarm?"

"The pointers-with-pride hold a very slight majority."

"That's a fair sign."

"You're right. It is. Luckily, most of the newspapers follow the pointers-with-pride and the general feeling is that way. Most of the malcontents fear that Telfu will have a finger in the division of the universe and they are not going to get as much because of it. They think we should step in and run Telfu, or Telfu may step in and run us."

"We're far enough apart to save 'em the trouble," said Sandra. "But look, fellows, you're running back to Terra—or Sol, anyway. Can you bring me something the next time you come? Please?"

"If possible," said Hammond.
"I need cigarettes, and clothing.

I look seedy. I'm frantic for a smoke; I know where you can buy a corpus delectable, dressed in old clothing, for a pack of smokes."

"Willing to sell your body for a

mess of potash?"

"Just about. But remember the old one—Caveat Emptor!"

"Knowing you—I'll remember," laughed Hammond. "How have

you enjoyed your visit?"

"So-so. It's been an experience. A lonely experience, believe me. I've had my troubles, and I've had my triumph. Aside from the complete lack of human companionship, it's been interesting enough."

"You mean male adoration?"

"Might as well admit it," said Sandra. "These birds look upon me as they might view one of those platter-lipped Ubangis. I'm not interesting nor disgustingly repulsive. Here I am, and I'd have been washing floors for a living if it hadn't been for the fact that I do have some experience and knowledge in gravitics. At least, I know where to find the answer."

"Well, take it easy, Sandra, and we'll be back. Look, I'm dropping a message-carrier with a radio spotter in it. It'll carry all of our spare cigarettes. Can't do much about clothing. None of us wear lace undies."

"I'll bear up," answered Sandra with a laugh. "Thanks."

"O.K., then, see you later."

"Right," said Sandra. "So long!" the set died, but before it went completely off, they heard her say to someone in the background: "You can turn the lights on again."

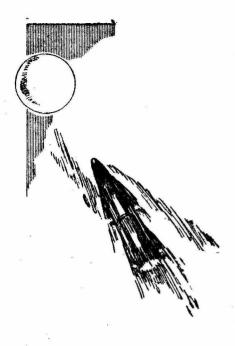
"What did she mean by that?" asked Hammond.

"I'll bet a cooky that they had the entire output of some city diverted into her communications set. After all, what with Soaky's absorption plus the normal powergravitic communication, they'd do a lot of running on a waterfall plant, or a coal burning plant to make up for what we accomplish with a single machine in Sol. Our power took a beating, as far as we are from it, and we know what kind of power it takes to do anything with the gravitics on Telfu. Well, let's get going. This seems to be the beginning of Our Busy Week."

At Hellsport, on Pluto, wenty-four huge ships were grouped. They looked like the Devil's spawn; their upright ovoid shapes set in the glimmering background of the light that danced from the openhearth furnaces of Mephisto. In the sky, the reflection glowed, and it was known for hundreds of miles as The Eternal Fire.

But the men that were arriving were too busy to notice the picture it presented. They were too close to that scene, although they had seen the photographs in the News From Hell and Sharon's Post, where almost identical pictures filled a whole page in the rotogravure sections.

They kept arriving, these men who were going to Sirius to set up another Lens. They came from resorts on the Sulphur Sea near Hell and they all asked the reason. They came from Sharon, which lies across the River Styx from Hell, and they asked the same question. The hurried call sought men from their play-spots in the Devil's Mountains and from the vacation wonderlands of the Nergal Canvon. The Great Cave of Loki in the Æsir Plains lost a dozen or so. and Fafnir's Abyss no longer rang to the click of camera shutters as the group left for Hellsport. Vulcan, the frustrated volcano, felt the downward-moving footsteps of the seven who were studying the embryonic crater that was beginning to show signs of life under the heat of Pluto's synthetic sun; the men left eagerly to be on their way to Sirius, but they all prayed that the



cold of Pluto's interior would remain cold until they returned.

The Hall of the Mountain King rang to their laughter as they returned to their hotel accommodations near Hellsport, and then again was silent as they went to Hellsport and made the last finishing touches on their equipment.

Just before take-off time, the old familiar cry of "Where's Carlson?" went the rounds until Carlson himself took up the general communicator microphone and called "Here, dammit!" and was informed that it was good because they couldn't start the lens without him. That cooled Carlson off, because it was true and all of them knew it.

Then the two dozen mighty ships lifted in the air above Pluto and

headed for Sirius. They joined the Haywire Queen on her way from the Plutonian Lens, and after a few minutes of discussion—all done while accelerating at one hundred and fifty feet per second per second per second—they fell silent and started on the run to Sirius, nine light-years away.

The trip was made without mis-

hap.

"Now," said McBride, through the general communicator, "in order that we understand, I'm going to repeat the general plan again.

"This is a problem different from the central heating system. We are not going to make a planet livable—we are going to destroy it! Honestly, it is but a satellite, but the problem is only made more difficult since it is harder to hit with a stellar beam. But enough of that, we've got the calculations necessary.

"We intend to burn Soaky. Our trick, then, is to set up the maximum possible heat-energy field around or on Soaky. Therefore a lens-system such as the Plutonian Lens is out of the question. Far better is a duplex system. We shall, therefore, send twelve of our ships to a point in space less than thirty million miles from Sirius. This will give us a solid-angle of considerable magnitude—a power intake, if you will—that will extract about all that we can handle.

"The front lens-element will cause the divergent rays from Sirius to become parallel or nearly so. We can't help but lose some.

"Now these parallel rays will hit

the second element, which will be set up less than ten million miles from Telfu. That's about as close as we can get without losing our control due to Soaky's field-absorption. And it will focus the entire possible bundle of energy on Soaky. Unless Soaky is utterly impossible, we'll cook his goose. Right?"

The answer came with a laugh. Then someone asked about Soaky.

"Soaky," continued McBride, "is a satellite of Telfu. It is approximately one quarter million miles from the planet, and is invisible from Telfu, being less than a hundred miles in diameter. The Telfans, by means of crude gravitic detectors, have discovered Soaky plotted his orbit pretty well, and so we really have little to do."

Steve Hammond went to the microphone and laughed. "Mc-Bride is a master at the art of understatement," he said. "But my contribution to the art of eliminating planets is an anachronism. We have, on the Haywire Queen, one of the most useless things in the universe. I shudder to mention it, fellows, but there must be some good place for everything, no matter how useless it may seem. We—and hold your hats—have a rocket ship."

A series of groans and catcalls returned over the communicator, and there was the shrill whistle of someone outrageously murdering "La Miserere."

"Yep," continued Hammond, "Skyways, who boast that they can furnish transportation anywhere

within reason or realm of operating practice, have furnished the *Pyromaniac*, which, named, appropriately, may operate on or near Soaky. It is a useless bit of machinery for anything else, and once the *Pyromaniac* has landed on Soaky and planted spotter generators for us to get a precise 'fix' on, the *Pyromaniac* will be relegated to some museum—if she doesn't get scuttled on the way in."

At this point McBride returned and finished by saying: "We shall set up our lens, and exceeding Archimedes, 'Having a place to stand, we shall burn up a satellite.' So now go on and make the thing cook, fellows. You all have your orders. The *Haywire Queen* will be a roving factor, feel free to call us for any trouble. We've got our own job cut out for us."

The twenty-four great ships of space, already spread out across the space between Sirius I and Telfu, began to jockey for their selected positions in space. Mc-Bride listened to the quick-running patter of the lens-technicians and the astrogators as they juggled their ships into the first semblance of order. Then he turned and nodded to Larry Timkins. Larry shook his head and left, going aloft to the rocket ship.

The loft opened and the *Pyromaniac* diverged from the opening. Hannigan, the *Haywire Queen's* regular pilot, snapped the switches briefly and the *Queen* darted away from the free-running *Pyromaniac* for several miles. Then the first

burst of flame came searing out in a mushroom, which lengthened to a long rapier of white fire. The Pyromaniac moved off ponderously, and the sky was cut into two parts by the river of flame that burned in the rocket's jets. The rapier of flame curved slightly and pointed toward Telfu.

"No worrying about him," said McBride. "We'll know where he is."

"So will the rest of the system. O.K., Jawn, you've got the boys running—now for our problem. How do we make Silicon-acetyldiethyl-sulfanomid?"

"Yeah. How?"

"Well, according to La Drake, their trouble is the lack of stability. We can probably make it under high electronic charge—in fact, that's what she was suggesting."

"What'll it do when we remove the intrinsic charge? Remember the xenon-bromide. It falls apart when we leave the high negative."

"It's more than likely that the stuff will collapse when we neutralize."

"Do you suppose we could get it there before it falls apart?"

"You mean like the guy who used to put the light switch off and get into bed before it got dark?" laughed McBride. "What would happen to our xenon-bromide if we were to get it to zero charge all at once?"

"I don't know, but file that one away for future reference," said Hammond, thoughtfully. "Make up a batch of xenon krypto-neide, or any of that ilk which might be crystalline, and then heave it in an electrostatically charged shell at the enemy. Upon neutralization, what with the hellish electronic charge plus the reversion to gas—probably white-hot from electrical discharges—we'd have an explosive that would really be good."

"Good!" exploded McBride. "Look, my little munitions expert. the neutralizing charge-happening instantaneously - would paralyze everything electronic in nature for seventy miles even in space, and the electronic charge, reaching zero nothing flat, would cause instantaneous decomposition of the compound. Since it is held together electrically, the decomposition, or burning rate, would propagate at the speed of light, or approaching that velocity. Whoooo. for everything in sight!"

"Funny how the human animal can always dream up a scheme for something lethal out of every invention."

"Yeah—even while they're trying to figure out something to save a planetful of people, they'll invent something deadly. That's one of the things that makes us us. But what do we do with the Telfans?"

Theodi says it is stable once made—do you suppose it would be stable even if made in the forced process?"

"Let's try. Got the stuff?"

"Barrels of it," said McBride. He went to the shelves of bottles and removed the ingredients for Telfu's antibody. He weighed the chemicals, and placed them in a combustion boat. This he placed

under a cover-glass and then called for Hannigan to run the intrinsiccharge generator.

As the collectors began to load the ship with electrons, and the various chemical indicators began to change color at various levels of charge, McBride and Hammond set up long-focus microscopes to watch the compound.

The final tube on the indicator panel changed from the mixture of xenon and bromine to a gray-green gas, and then McBride called: "Enough, Hannigan."

"Right, boss," said Hannigan.

"Any action?"

"Not yet. First the atmosphere of pure nothing so the stuff won't try to combine with the aforemention atmosphere. twelve hundred degrees Kelvin, and finally the slow-cooling to form large crystals." McBride opened a valve and the trapped air under the sealed glass whipped out into space. "This stuff is stubborn." he added, turning on the heater. mixture grayed a bit, and then started to turn cherry red all over Hammond manipulated at once. the color-temperature meter and when the color was right, he motioned and McBride cut the heater. riding the control all the way to room temperature.

"Anything?"
"Won't form."

"Huh?" asked Hammond. "I thought we could form anything."

"We can. But we might not live to tell about it. Some items of unstable planetary systems are easily converted from their normal valence-ratings to others of wide and ridiculous values. We picked xenon for our final indicator because it fits in nice with the negative value we need. But this stuff has valence-inertia beyond that value. According to this stuff here, I'd say that its instability was less than that of the carbon-chains that go into the human body."

Hammond whistled.

"And that means, little brother, that by the time we hit the right negative charge to make this stuff combine, we'll end up with being completely and irreplaceably dead."

"Ugh!" grunted Hammond.

"Did we get anything?"

"Can't tell," said McBride.
"Darned stuff sets like cement when it cools. Warm up the tensile strength machine and we'll crush it and paw through the wreckage."

He inspected the crushed mass a few minutes later and managed to separate two minute crystalline specks under the microscope. "I don't know whether these are the stuff, Steve," he said, "or whether it is just wishful thinking. Is it better than that four ten thousands of one percent yield?"

"Not if you can weigh it. We started off with a hundred grams. One percent is one gram; four tenthousandths of one gram is four hundred micrograms. The balance will swing over on less than ten micrograms. This isn't even that much. No good, Mac."

"Call Theodi and ask about that

catalyst-conversion stunt."

"Huh?"

"He intimated that if they could combine the silicon with the catalyst, they'd be able to cause metathesis at better than sixty-one percent efficient. Trick is getting silicon to combine with an already-filled compound."

"They are better at chemistry than we," admitted Hammond. "I'll call."

Apparently the receiver in the Lady Luck was attended constantly, for the sleepy voice of a Telfan answered. He answered that he would get Theodi, and as he was about to shut off the transmitter, another voice came over. It was Thuni.

"Hello, Thuni," said Hammond cheerfully. "How goes it?"

"Bad," said the woman. "But I must go."

"I wouldn't," advised Steve.
"Your sister Thani and her husband would like to talk to you."

"Oh," said Thuni in a strained voice. "I'd like to speak, too. But this expenditure of power... I fear—"

"Nonsense. Thani has been nine light-years away for almost a year. Think, Thuni, the light that started from our star is only one ninth of the distance on the way, and Thani has been there and back."

"I know, but this power-"

"What's power?" laughed Hammond. "We've plenty of power."

"But we have not. Realize that the entire city of Indilee is in darkness because of my desire to speak." "So what?" asked Hammond.
"You have the chance, have you not?"

"But I am not Sandrake, who would think nothing of expending the entire power-availability of a whole city just to talk."

"Sandra is pretty much a human being in spite of her faults," said Hammond. "I'm certain that any of us would have done it, just in the same manner. In fact, I'm not too certain that Drake is inclined to be a little inefficient, not knowing too much about the finer points of operation. I'd probably divert the power output of the whole planet just to be sure I was heard."

"Does nothing stop Terrans?"

"Not for long," laughed Hammond. "And here's Thani. And the operator won't be asking for another thirty thousand dollars after the first three minutes, because there's no operator."

"I fear," started Thuni, and then ceased her worry. She finished: "I'll hold this open until Theodi comes, at least."

"Good. That's learning to use the gifts of the universe to your own comfort and pleasure. See you later, Thuni." To Thani, standing at his side, he said: "Here's your sister. She needs cheering up."

Thani flashed him a smile that might have been enticing in a Terran woman, and then turned to talk to her sister.

"I've a thought. Not a good one, but a couple of dark ones. We know that silicon is a tough character. It doesn't take to planetary changes with the ease of xenon, for instance. It is way high up on the electronic-stability table."

"That's correct," said Hammond. "But we've been thinking in terms of not trying to add the silicon, but to combine the sulphur to the rest of the compound containing the silicon already."

"Frankly, not too much known about the electro-combining processes with the more complex organic compounds. But what I'm thinking is this: A chain is as strong as its weakest link, and the attempt to add silicon to the compound only fails. When the more active sulphur is added, it automatically forces the silicon out of the compound, and will continue to do so until the right electro-negative charge is reached. combining silicon at a level less than its electro-stability level is impossible."

"That means trouble, Mac," said Hammond slowly. "Want to try the decomposition of silicon-

fluoride?"

"Might, to kill some time." Mc-Bride reacted fluorine with silicon in a combustion chamber and then called for Hannigan to run the charge down again. They watched, and as they expected, nothing happened.

"That's it," said McBride.

"We're stumped."

"I wonder—" mused Hammond.

"Have you any doubt? Are you thinking of automatically operated

space-chambers set up for the formation of Silicon-acetyldiethyl-sulfanomid?"

"That might work if we had time to build 'em. But look. Mac. Suppose we generate a terrific electrogravitic field, monopolar as according to the first orders of gravitic fields. Generate this field in a volume of less than a foot in diameter, and accordingly intense. Then we'll negatize the ship, and at the same time bombard the electrogravitic sphere with electrons from a standard electrongun. It'll take gobs of power, John, to drive 'em in, but the field will help, and also keep 'em there. What do you think?"

"Sort of localizing our collection of electrons, hey? Hm-m-m. We'll have to do that in vacuuo—but that'll keep the atmosphere from combining, too, and is better as she goes. We have plenty of electrons when the ship runs negative, and that'll tend to collect them in the place where they're needed the most. Might work, Steve. Break out the E-grav and we'll try."

Hammond called Pete Thurman and James Wilson and told them what he wanted. They all set to work, but an interruption came for Hammond and Hannigan as the *Pyromaniac* returned in a blaze of fire.

The rocket went off, and the Haywire Queen's pilot did some fancy work until the inert rocket ship entered the space lock above. Larry Timkins emerged, holding his head between his hands. "It's

murder," he said. "Downright murder!"

"What's murder?"

"Manipulating that fire-breathing gargoyle. Y'know how the regular drive takes hold all at once? Well, this thing sort of hangs fire. There's a bit of a lag—ever so little—since the jets are sheer mechanical and the time-function requires that the mechanical linkages from lever-turn to fuel-release, ignition, and ultimate movement—well, they act in considerably less time than the electrogravitic drive."

"Do you have to use it again?"

"Nope. I planted the spottergenerators and—picked up a souvenir of Soaky. Look," and he pulled a piece of crystal from his spacesuit pouch and dropped it on the table.

"Dirty looking hunk of glass," said Hammond. "Going to use it

for a paperweight?"

"It'd go better on the gal friend's finger, but I'm going to sell it and lay away the profits for my edification and amusement. It'll assay four karats if it's worth a dime, and that ain't quartz."

"Diamond?" asked Hammond in

surprise.

"It has an index of refraction higher than 2.4, and is harder than Sandra Drake's heart."

"Sounds like. How did it get there?"

"Ask the bird that dropped it. I only picked it up. If I'd found it in a blue-clay flue, I'd have mined Soaky for fair, but a loose diamond lying on the surface is strictly a changeling. Soaky must

have known high-falutin' friends in his younger and more promising days. Call it one of those inexplicable mysteries and forget it. I give up."

"Hm-m-m. Might be more

there, hey?"

"Yeah, but the life of Telfu depends upon our getting rid of Soaky."

Thani, who heard the latter part of the discussion, came over and looked at the uncut stone in wonder. "You will want to inspect our satellite?" she asked Hammond.

"I'd like to," he said. "But we have no time. While we've never synthesized anything larger than fractional-karat diamonds, and this four to five karats worth of crystallized carbon will be worth a small fortune to Timkins, here, the idea of forestalling help to Telfu whilst we chase a will-of-the-wisp is strictly a phony. Besides, it looks to us as though this one was a sport—an impossible find. Chances are that Larry was extremely lucky."

Thani shook her head. The chances of a huge fortune in precious stones going up the chimney because of danger to an alien race gave her food for thought.

McBride's shout cut all future conversation along this line. Hammond called for Larry to follow, and they went to the room in which the electrogravitic generator was being worked on.

McBride met them. "We're about ready," he said. "There's

peepholes for all."

"Peepholes?"

"Unless you want to be in an airless room along with umptygewhillion electron volts. Better take a peephole."

McBride's hole was equipped with telescope and controls for the equipment. They set their eyes to the windows and watched. McBride explained: "First off, I open the space cock and let the vacuum of space in. Said vacuum drives the air out, leaving the place filled with hard nothing. That eliminates the possibility of corona with the voltages we are going to use."

Then he depressed the generatoron control button, and the pilot lights winked. He read the meters through the telescope, and adjusted the variable controls until a faintly outlined sphere formed between the radiator gravitodes of the generator. This sphere was invisible in that it reflected no light and was transparent, but the light from the wall beyond was refracted slightly, and the sphere was constantly changing in index of refraction, so that the sphere shimmered like heat waves over a meadow.

"We set the spherical warp, so. Now on the boom we insert the combustion tube containing the mix. The insertion of the boom is easy due to the heavy gravitic field, which attracts proportional to the square of the distance. I think it increases the inertia-constant—"

"Woah, Mac. Inertia is a



property of matter, not a phenomenon."

"You can stir up a good argument later, here or at the annual meeting of the Gravitic Society. Right now I'm about to turn on the heat." McBride withdrew the boom, leaving the combustion tube in the warp, where it was fixed against the infinitesimal point of zero-attraction, with all sides of the boat in contracting-urge. He snapped the button and watched through the color-temperature me-Then, as the color was reached, he threw over a series of controls, and the spherical field became a riot of color.

It fluoresced, as the bombardment of electrons hit it, coming from all sides. The sphere grew, and Mc-Bride tightened the warp by applying more power. Still it grew as the repulsion of the electrons tried to nullify the gravitic attraction, and McBride continued to step up the power of the electrogravitic generator to keep the sphere from expanding.

"Hannigan," he called. "Give

me just a bit more?"

"We can stand about six more electrons," laughed Hannigan. "No more."

"Give 'em to me," returned Mc-Bride cheerfully.

And then the sphere refused to be confined. It grew, and McBride made comic motions with the hand that held the control, as if to turn the knob from its shaft in a supreme effort to increase the power by a single alphon.

The sphere grew to huge propor-

tions, and McBride cranked the control to zero just as the surface of the sphere grew instable and threatened to expand without limit.

His other hand turned the heat control slowly down, and the color of the combustion tube died. A hiss of air entered, and they ran inside to see the result.

The combustion boat was ablaze with scintillating crystals. Beautiful blue-green crystals that were half-hidden in the gray-yellow powder of the catalyst. Their surfaces caught the lights, and sent little darting spots of blue fire dancing over the approaching people.

McBride lifted the combustion tube with a pair of tongs. "This is the pure stuff," he said quietly. "Looks like a good crop this year, too. What's it insoluble in, Steve?"

"Sulphur dioxide," according to Theodi."

"Good. We'll remove the catalyst with that and weigh the residue which will be the entire output of our hundred grams of stuff. The percentage will be higher than .004%, I'd say. Come on—"

The communicator barked: "Mc-Bride! McBride! This is Peters on Number One, Telfan element."

McBride answered: "What's the matter?"

"Nothing. We're in! We had a bit of trouble getting the warp going at this end. The image-size of Sirius when projected by a lens as close as the fore element is larger in diameter than Sirius is according to the distances involved, you know, and getting the warp started across the face of the Telfan Lens was some going. But we're about to thicken the center and shorten the focal length of the aft element right now."

"O.K. No trouble, hey?"

"Excepting it is hot in the hindend stations. The interstices that give the spill-overs from Lens One do a swell job of heating up the stations when it hits."

"Sirius is hot stuff."

"Look, Mac, how much energy will it take to ruin Soaky?"

"Well," grinned McBride, "Lothar's 'Handbook of Useless Facts' says that a globe of ice the size of Terra, if dropped into Sol, would melt and boil so quick it wouldn't go 'Psssst.' Is Carlson handy?"

"Here, Mac. On the hind surface in the flitter and it is hotter than the hinges of Hell."

"The one on Pluto?"

"No, the one in the real Nether Regions."

"O.K., Carl. You're the balance wheel in this outfit. If you must aberrate, lean outward a bit, will you? I'd hate to singe the pants off of a couple of billion Telfans whilst trying to save their lives."

"I'll keep an eye on it," promised Carlson.

"Eye?" grunted Peters. He means ear. Or has Carlson got his semicircular canals in his eyes?"

Hammond interrupted with a gloating shout. "Mac! We're in! Ninety-one percent. Pure, crystalline Silicon-acetyldiethylsulfanomid.

And the charge is almost equal to the galactic mean; meaning that the stuff is stable."

McBride nodded and said into the communicator: "Our half is did, boys. All that stands between we-all and Telfu is a stinking, onehundred mile satellite. Frankly, I'm agin it!"

Peters did not answer McBride. He shouted, his voice strained with excitement: "Here comes Soaky now, around the edge of Telfu. This is it, gang. Bore him deep and give him Hell!"

Sandra Drake sat down on the edge of a hard bench and took a deep breath. With her free hand, she rubbed her eyes and pushed the stray hair out of them. Her eyes were red-rimmed and puffed with lack of sleep. She stretched and took a longing look at the surface of the hard bench; one of those looks that was calculating not the hardness of the bench but wondering if she could catch forty winks without having trouble call her away again. She decided not. She knew herself, and she knew that as long as she kept going she could stay awake, but if she slowed down for a moment, she'd drop off and nothing would awaken her. And forty winks would actually make her feel worse than no sleep at all.

Outside of the window, dawn was just breaking. It was a strange dawn, an alien sunrise, but one that was nothing new to Sandra Drake. Sirius II was just above the horizon, but almost lost in the mists because of its low radiation. Sirius I was not above the horizon yet, but

THE FIXER 91

his strong radiation was coloring the sky blue-gray.

Sandra looked out of the window at the graying sky above. Carefully and hopefully she scanned it but she was not surprised that nothing was there for her to see. The idea of doing away with a hundred-mile satellite was too much, even for Mc-Bride, Hammond, and the rest of their gang. A hundred miles of celestial body was not large as celestial bodies go, but against man't futile efforts it was simply vast.

In all of the man-made works on Terra, Pluto, Venus, Mars, and Luna, considerably less than the volume of a hundred-mile sphere had been moved. Affected, perhaps, but not man-moved; the pile-up of rivers behind a dam could not be counted.

So man pitting himself against a celestial object seemed almost like sacrilege, though Sandra Drake knew that these men would take a job of analyzing the course-constants of the Star of Bethlehem if they thought they knew where it was now.

And as small as Soaky was against the giants of the galaxy, it was none the less a celestial object.

So she searched the sky hopefully and was not surprised that nothing was there. Her search was more "Will it happen" instead of "When will it happen?"

And then a Telfan stuck his head in the room and called: "Sandrake! Can you come?"

Sandra shook her head, rubbed her eyes again, and went.

"Now what?" she asked wearily.

"We don't have to evacuate another district?"

"No," smiled Theodi, "not that bad this time. But we are going out to Loana—a small town not too far from here—and try out some of this latest stuff."

"Have any hope for it?"

"I must have hope," said Theodi.
"That's selling yourself a bill of

goods," said Sandra.

"I know. But unless I play self-deception to the limit, I'll quit from sheer futility. No, Sandrake, I must hope with all my soul and I must force myself to believe that this may work."

"I won't even mention my friends," she said.

"You are beginning to give up?"

"I hate to think of it," said Sandra honestly. "It'll be the first time that they failed to do what they said they could do. I know they planned it, perhaps it takes longer than they think. Or perhaps they came unprepared; their equipment not complete. After all," and Sandra managed a reminiscent smile in spite of her feelings, I've seen them running some of the haywirest equipment in the world and making it perform. Maybe this time the law of averages caught up with them."

"You think perhaps they are finding that our satellite is too much for them?"

"I hate to think of it. I'd hate to admit that they could fail."

"You have changed, Sandrake."

"Have I? I wonder if it is my hope that they will take me home. No, Theodi, in spite of what I may say about them, they know their potatoes. They're the typical genius-type. Whether they rate as genius I wouldn't know, but they're that kind of people. Give them a situation, and from somewhere in their memory they can bring forth the darnedest things which fit in like jigsaw pieces to complete the whole picture."

"I hope they continue," said Theodi. "Feel up to coming along?"

"Sure."

"Good. We need you."

"Who, me?" asked Sandra.

"Yes."

"Why?"

"Because you are alien. You are impartially alien. Though you have friends on Telfu, they are few, and in your secret mind you class us all as 'Telfan' and forget about subclassifications. This experimentation is just that, to you, and we are the subjects. Therefore when you select one hundred victims out of a district, we get a perfect, impartial selection; a true cross-section of the district."

"Any of you could do that."

"No. We'd be biased by our knowledge of who is important, who is the sicker, who is young and who is old. And, though it may seem strange to you, you have absolutely no idea of beauty. Therefore you are impartial among the ugly and the beautiful."

"So what?"

"In experimentation on humans, we are inclined to pick those of less value to the community. We pick the lame and the halt and the ugly. We are inclined to pick those who are likely not to live anyway, and

this biases our selection. Come, let's get going."

"O.K. Lead on."

Three hours later, and still without sleep, Sandra strode up the line of Telfans and pointed out one after the other. Those selected followed silently to the auditorium in the center of the village and seated themselves. They looked neither happy nor regretful, but rather a resignation was upon them.

Sandra said: "Is this the best

place you could pick?"

"Sorry," smiled Theodi. "I didn't know it made any difference."

"I suppose it is good from a functional standpoint," said Sandra. "Being on the stage permits them to pass before us from one side to the other. It is the only clear place in the auditorium in which to work, and as far as I could see, there isn't any other suitable place in town. But being on the stage sort of makes me . . . oh, come on. I'm just tired, I guess. Where's the pills?"

"No pills on this deal," said Theodi, opening a case and removing a set of large hypodermics. "This goes into the vein. Right in the main line. You'll have to help."

"Me? Look, Theodi, I don't feel well enough to go shoving needles

into people."

Theodi looked up sharply. Her brash-sounding statement was made in a hard voice in spite of its humanitarian and pleading sound. Sandrake, to Theodi's opinion, was really feeling ill.

"It must be done," he said simply. "You fill and hand them to me."

I shall come with you as far as the outer walls of your apartment."

Virginia was in the apartment, and for long minutes babbling away to her husband, before realization finally came that she was not dead. That actually her situation was worse than that.

She must have been unconscious for a week, to have memory of only a few hours of waking.

By noon they were no further than that. She couldn't stop talking. Twice, Mention persuaded her into bed, but each time when he went into the kitchen to mix her a drug, she was out from under the quilts and following him.

After the second time, the knowledge penetrated that he had a mentally sick woman on his hands. Above everything else, she needed rest, time to calm down.

He managed finally to give her the protein sleep drug, cadorin. But it was not until he lay down beside her that her voice grew drowsy; and she fell into a restless sleep.

He had time to wonder what he ought to do, now that she was back. He was still utterly divided two hours later, when she wakened, tense and terrified.

"That woman," she began thickly. "She put a needle through my ear into my brain, and she pricked my lungs. She—"

"Many people have pierced eardrums," Mention suggested. "The important thing is she didn't disfigure you."

The phrase had proved briefly magical a half dozen times before.

It proved so now. The funny, mad look went out of her eyes. She lay quiet for a long time. So long that Professor Mention got worried.

He glanced at her cautiously. Her eyes were open, but staring, and narrowed with thought. For a minute, unobtrusively, he watched her. Then, slowly, he said:

"Apparently, what we have here is a gang, remorseless, murderous, infinitely evil. It was founded as the result of a neurological discovery of Dr. Dorial Cranston, but he himself is not one of the gang. Its political and material power seems indestructible. It's too big; like a gigantic octopus it sprawls over the earth. But Cranston goes around trying within the pitiful limits of an old man's strength to undo the damage done by the monsters he has created."

"Norman!"

The tone of her voice indicated to Mention that she had not heard a word he had said.

He spoke softly: "Yes, dear?"
"Norman, Dr. Cranston won't live
much longer. Do you realize that?"

He knew there must be a deeper meaning behind her words than just the fact. After a moment he thought he had it. He said:

"You mean, then there will be no check on those devils."

Once again, she seemed oblivious to his words. Her tone was more urgent, intent:

"Norman, if he's the only one who knows where that island is, then what will happen to my heart, and the hearts and organs of those others, after he dies. Surely, they



won't go on beating, living, without attention."

It was odd, but for a moment the words meant nothing to Mention, but that here was one more fear to soothe out of her tortured mind. He actually formed the calming words on his lips; and then he stopped himself.

He lay very still, mentally transfixed. "That's it!" he thought. "That's their fear. They must be desperate. They'll stop at nothing."

His mind leaped out over the possibilities. By evening he had still to come to a decision. It was amazingly hard to know what to do, what could be done, against such a vast organization.

The days strode by while he stood moveless in his mental valley of indecision. Each day Mention told himself:

"Surely, today something will happen. They'll do something, show in some way why they did all this to us."

Virginia returned to work. A whole month passed. It was a week after that that Mention walked into the apartment one afternoon—just as Virginia stepped through the wall and materialized in the hallway.

She was radiant. She glowed. There were times in the past when he had seen her alive and excited. But never like this. Her body was vibrant; it seemed to cast off an aura inhuman in its power. Almost literally, her face glowed.

Mention stared at her; and slowly her richly tinted cheeks lost their natural color. It was their day for eating in. Without a word Virginia turned, and hurried into the kitchen.

Two hours later, when the radiance of her had faded to normal intensity, Mention looked up from the newspaper, and said quietly:

"Virginia."

She jumped; then:

"Yes?"

"How often have you done that?"

She was visibly agitated. It struck Mention with a shock that, in some curious way, she had hoped he wouldn't refer to what had happened. Her lips twitched. Her eyes wouldn't meet his. She said finally in a low voice:

"That was the first time."

She was not, he thought, used to lying. So that the lie was as transparent as a child's. He felt sick; then in automatic defense of her, told himself that she had never recovered from her experience.

He said gently: "Why did you do it?"

She seemed relieved that he had accepted her statement. She began eagerly:

"I wanted to see how it worked, partly because being able to do it might prove a defense against them; and I couldn't remember what it had been like the first time. I was too excited then, and besides it hurt terribly."

"And this time?" Steadily.

"It didn't hurt. I felt alive, warm, wonderful. After a while I wished myself insubstantial, and it was so; then I stepped through the wall, simultaneously wishing myself in the alley behind the *Herald* office—and there I was. I felt no sensa-

tion. The movement through space was instantaneous."

Her eyes were wide as they gazed into his. Briefly, all fear was gone out of them. She breathed:

"Norman, its miraculous, godlike.

"Why not try," Mention said, "to wish yourself on the island? I'd like to have a talk with Dr. Cranston."

Virginia shook her head vigorously. "It's impossible. I don't mean I tried to go there. But I made several attempts to go to places I'd never been; and nothing happened. You have to know the direction; and you have to be able to visualize the place. You have to know where it is you're going."

Mention nodded slowly. "I see,"

he said.

He let the subject drop, but he thought wearily: "This is what they're waiting for: To let the reality of her situation sink into her. To allow her time to grasp that she is in the same box as they are."

But why? What did they want of her? They had started off by killing her because she had made some minor discoveries about them. Then, when Cranston interfered with the finality of their murder, they had warned Virginia's husband not to go to the police. They wanted something; and now that they had gotten Virginia to experimenting with the power they had given her, it shouldn't take long before they showed their hand.

He glanced up at Virginia. She was sitting, gazing into space, her

eyes half closed. Mention felt a sudden, enormous unease.

It was ten o'clock that night when the doorbell rang jarringly. Mention glanced at Virginia, and then stood up.

"We won't be getting friendly visitors at this hour," he said. "Better call Edgar, and tell him to press button 243. No use taking chances."

He waited until she had spoken into the wrist radio, then slipped the Luger into his pocket, and went to the door. It was a messenger boy with a letter. The letter read:

Wednesday the 23rd.

Will Professor and Mrs. Mention come Friday evening at seven to a dinner party in the main dining room at the Grand York Hotel? Give your name to the maître d'hôtel.

Cecilia Patterson.

There was one thought that dominated all others in Mention's mind, as he read the letter: Action was beginning. If ever he intended to do something not of their choosing, the time had come.

He spent the night, thinking, straining, for a clue. He was in the middle of a lecture the next morning when comprehension came as easily and quietly as life to a newborn puppy.

He stood very still, staring at the class, but seeing only a blur of

faces.

"Why," he thought in a great wonder, "it's been there before our eyes ever since Virginia came back. What blind fools we've been not to realize."

Not until he was on his way home

did he realize what he must do about it.

He left his bedroom window open.

He waited until the illuminated dials of his watch pointed at two. He dressed silently, shoes and all, then waited until a streetcar moaned past along a nearby street. He let the outside sound clothe any sounds he might make in moving to the window.

The drop from the second story window jarred his bones, but the softness of the earth in the flower garden below saved him from injury.

There was a twenty-four hour U-Drive-It garage three blocks away. Half an hour after leaving his room, Mention slipped into the theater seat

beside Edgar Gray.

"All right, Edgar," he said quietly. "You're wanted. Come along."

"Glug goo?" said Edgar in a

whispered fear.

"Come along!" hissed Mention threateningly. And flashed his Luger.

Edgar came. Mention drove out into the country, and parked finally in an open stretch of farmer's roadway, off the main highway.

He didn't switch off the motor, and he left the gear in medium, and kept his foot on the clutch—just in case. But he knew he was safe. Even they couldn't be everywhere.

The idea of using Edgar for his purpose seemed cleverer every minute that passed. There were two problems in connection with him: one was to get him to talk m an understandable fashion; the other was to see to it that Edgar told no one of this meeting and its results.

It was the first problem that proved difficult. But after half an hour it began to solve itself. Mention found that he was beginning to understand Edgar's gloppings. Behind all his incoherent glugs and glibbers, Edgar spoke English.

Mention expected little from the questioning phase of the interview; and that was exactly what he got.

The mind of Edgar was a misty region, but the darkness lacked depth. If a human brain could be compared to a book, then Edgar's was a magazine of the more lurid sort. But he was almost completely lacking in personal experiences.

An orphan from babyhood, he had spent the first fifteen years of his life within the walls and behind the fences of an institution. At fifteen, they had picked him up, and put him behind the enormous glass window of the Futurian Scientific Laboratories, and he had been there ever since.

"But," asked Mention, puzzled. "You have been treated, so that you don't need sleep. When was that done?"

"When they took out my heart," Edgar mumbled, "and my lungs and my brain and other things, they said I wouldn't need sleep anymore. They do that to people they want to control."

"Yet," Mention thought precisely. "Virginia sleeps normally. There are variations and variations to this business."

Edgar finished simply: "I was scared at first but"—his voice tightened with hate—"the woman whipped me a couple of times, and then I didn't dare not do as they wanted."

It was the suppressed fury in Edgar's voice whenever he talked of "the woman" that solved the second problem.

"Listen, Edgar," Mention said earnestly. "I'm on your side against that woman. When I get through with her, she'll never whip you again; and you'll have a chance to do all the things you've ever wanted to do."

That last was important. A youth who read as much escapist literature as Edgar must be absolutely maddened with the desire to go places and do things.

"Listen," said Mention, "here's what I want you to do. Tomorrow night at twelve o'clock, a jet plane leaves here for Los Angeles. At 1:30 a.m. a rocket ship leaves Los Angeles. I want you to be on that jet and make the connection with the rocket."

"Me on a rocket ship," gurgled Edgar ecstatically.

"You'll be back in time for work; so don't worry about that. Here's some money, and a notebook containing exact instructions as to what you are to do. I've even left spaces for the answers I want you to write down."

He handed over the notebook and the money, and watched Edgar slip the former into his breast pocket, the latter into a small billfold. Edgar's fingers shook with excitement. Mention trembled too, but it was not excitement. He felt cold and hot by turns as he thought of Edgar having that notebook all day long. If they ever got hold of it—

Mention shivered, and drew his gun. He made his voice hard and

cold.

"Edgar, take one last look at this. If you fail me in any way; if you don't do this job, and do it right, I'll use this gun on you. Understand!"

In the dim light of the dashboard, Edgar's eyes glowed with understanding.

"Glug goo!" gulped Edgar.

Mention taught at the university as usual the next day. It was during the noon hour that he put through his phone call.

"Tell her," He curtly informed the male servant who answered, "that it's Professor Mention."

A minute later, a woman's voice glowed on the phone. Mention said:

"Mrs. Patterson, I wish to change the hour of our dinner from seven to midnight. I believe the Grand York holds late dances every night, so there will be no difficulty about getting the service. The reason?"

Mention laughed curtly. "Do I have to give one? All I'll say is, my wife and I won't come unless you agree. You do! Very well."

He felt grimly pleased, as he hung up. It was risky; it would make them suspicious. But Edgar's movements would now be as free from watchful eyes as the precautions of one man could make them. There were only three dangers now:

First, that it didn't matter what he did. Second, that he was not really fooling them at all. Third—Nitwit Edgar himself.

They were led to a table where four men, one of them Torrance, and five women, one of them blond Mrs. Patterson, were already seated. The men stood up. The women ceased their animated talking, and looked them over curiously.

Their faces shone with unmistakable extra life. All nine, men and women both, almost literally glittered with power. The table was the center of attraction. People kept glancing over from nearby tables, in fascinated awareness.

Mention felt drab and lifeless beside them, as he sank into one of the two empty chairs, but it was a physical feeling only. Mentally, he had never been more alive, more determined.

Convince Virginia, he thought, that she had nothing in common with these creatures. Gain information. And give Edgar time to get safely started on his long, swift trip. Those were his purposes.

The anxious hope came that Edgar had not been drained of strength to provide the glittering life that these people now paraded.

It was worrying. Picturing the possibilities made eating his fruit cocktail an effort. In the end he could not contain himself. It was Torrance who answered his carefully worded question:

"No, the Edgars in our power

centers are not 'batteries'. They're transmitters. The word, negative, is the key. Every time somebody passes the great plate window behind which Edgar sits, there is a tiny flow from them to him, but he can't use it. Where Edgar's internal organs—and mine and your wife's—used to be, are now electronic impulsors largely made from tantalum. One difference is that Edgar is negative. Your wife and the others and myself are positive. Is that clear?"

It sounded like Yogi mouthings. But apparently he was going to be given information. He flashed his next question. Torrance answered promptly:

"There are two hundred fortythree of us including your wife. Of course," he went on, "we're only the executive central. We own immense property, and have tens of thousands of employees, including the people we have had watching you and your wife."

He laughed. But Mention was not amused. The personal words had come so unexpectedly that he swallowed hard. He forced his tensed nerves to relax. Only what he had done last night mattered, he told himself unsteadily. And because of his precautions no one, absolutely no one, had followed him. He was sure of that.

It was clear, though, that the man was playing with him. It startled him. It brought awareness of how tremendous was the power these people must believe themselves to possess.

He felt shocked into studying for

the first time the faces around the table.

He had thought the four men were handsome, and the five women regular streamlined beauties. In a way that first impression was not wrong. Even now, examined intently, all nine, men and women alike, showed themselves to be well formed physically, a quality enhanced by the fact that they were marvelously well dressed and marvelously well groomed.

At that point the beauty ended like a road snapped off by the gap

in a bombed-out bridge.

Those finely formed faces were chiseled masks of hardness. Merciless, inhuman hardness. Here was an innate cruelty that only Death personified could equal. Their eyes were slate-blue and slate-gray and slate-brown. Their lips were uniformly thin and compressed.

That was the underlayer. Superimposed, dominating, crowning each countenance was arrogance, supreme and terrible arrogance.

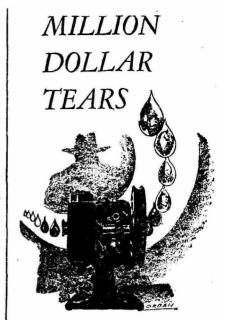
There was no question at all. They did believe in their power.

Mention ate his soup course, fighting for calm. He stole a glance at Virginia, but she was staring down at her plate. She had, he saw, taken very few spoonfuls.

He thought darkly, in surprise: Nobody was saying anything. The only words they had spoken so far had been in answer to his questions.

He saw that Torrance was smiling enigmatically.

Stronger grew Mention's convic-



It's crime on an international scale with the fabulous gems of an Indian Rajah at stake!

The Shadow meets his cleverest opponents in Count Bela Zurich, a continental crook with an eye for jewels, and his exotic partner, Mata Safi, a lady with plenty of past!

Read TEAR DROPS OF BUDDHA and thrill to a story of adventurous intrigue in the May issue of

## THE SHADOW

AT ALL NEWSSTANDS

tion that he was being toyed with. And yet, up to now, he had lost nothing, had actually gained information.

That course couldn't be dangerous. He asked his next question. As before, it was Torrance who answered, and with the same promptness, the same apparent honesty:

"You're right, there wasn't much about Cranston's discovery in his books, mainly because he hadn't discovered very much when he wrote them. And my biography of him was written to kid him along at a time when we were building up our organization."

He paused. "Don't forget, in thinking of Cranston and his work, that he's a nut. For instance, it was not until he discovered that his idea of spreading good will by universal physical contacts was not going to be given a trial that he conceived the idea that artificially magnified nervous energy might do what he required—without contact.

"Never did a theory of a man fall on a smoother, rounder surface. That ball is rolling yet.

"Within the short space of one year, Dr. Cranston had found that an interflow of energy took place every time two or more human beings came near each other. It was a genuine transference of life force, but it needed magnification before it would have the same effect as physical contact. Accordingly, he engaged a first-rate electronic engineer—myself—to develop a tube and a circuit which not only magnified the organic energy, as he called

it, but which could tune each individual's wave length at will.

"An improved version of that original circuit is now inside your wife keeping her—connected—to the hearts, lungs and brain in Dr. Cranston's secret laboratory."

He gazed earnestly at Mention. "Cranston has never explained to me why it is necessary for the organs to be outside the body, except to say that there must be a flow over distance. Yet at the same time there is no distance. The blood, the nervous energy, every breath of air we take is pumped, flows and is purified by the organs in those glass cases of his. If anything happens to those organs, we'll die."

Mention hadn't intended to speak. But this was what he had wanted to know. All his doubts had writhed around the one point of those human organs in Dr. Cranston's island laboratory.

And they were connected. They were. Nut, the old fanatic might be. But he had these Machiavellians in the palms of his two hands.

But why—the wonder was a savage force—why hadn't Cranston used his control, and destroyed the whole lustful crew?

That was the question that burst from Mention's lips. And Torrance, his eyes like gray-diamond drills, answered from between clenched teeth:

"Because he can't bring himself to kill. Because he's a bug on pacifism as no one ever has been. Think! His whole discovery, this tremendous discovery, is based upon his emotional desire to find a practical method of spreading good will.

"That emotionalism is our deadly danger. It makes it possible for him to fool himself. It's true he can't bring himself to kill us. But he's seventy-eight years old. Not old as ages go nowadays, yet well over the average life expectancy.

"He could, literally, die any day. He stubbornly refuses to recognize that possibility. He won't permit our doctors to examine him. In some queer way, he's convinced himself that if he dies, and we don't find our organs in time, then he won't really be responsible for our deaths.

"How did he get them in the first place? Man, who'd ever suspect that an old fool like that would be so cunning. He performed all the operations except his own. And somehow he must have become suspicious of us."

Torrance was utterly intent now, his gray gaze so concentrated that Mention had the impression of two dully blazing lights shining at his face.

"Mention, we must locate that laboratory. We must gain control of our vital organs.

"That is where your wife comes in."

Torrance paused.

There was no question but that he had come to his point.

You see, professor," he went on softly, "every time we discover that someone suitable to our purpose is investigating us, we wait until we think they know enough to take the

shock of revival. It is amazing how little knowledge is required, and yet how important it is; dozens of people whom we simply picked up on the street went insane on us.

"Anyway, we kill the investigator at the right moment, then transport the dead body to Dr. Cranston's home.

"Here again, care is necessary. The old man tires quickly these days. And when he is tired his emotional mind convinces itself easily that there is nothing he can do.

"So we found it was useless to bring him too many bodies.

"Under normal circumstances, however, the poor old fool can't stand to see people dead when he knows he can do something for them. He is particularly partial to"—smilingly, Torrance bowed at Virginia—"to beautiful women. And, even though he is aware of our purpose in bringing the corpses to him, he has reached a state of mind where he doesn't care. He feels hopeless, defeated by our enormous organization.

"Accordingly, over a period of time, we have built up a picture of the surroundings of his hiding place. We know that it is on an island, somewhere in a tropical zone. Your wife, we hope, will be able to tell us some little point more. Since her own life is at stake, she will, I am sure, be glad to tell us all she can."

Torrance stopped. He looked at Virginia, then at Mention with a strange imperturbability.

"Is everything clear now?" he finished.

"Yes," said Mention.

He felt a relentless rage. It was not the host of murders that did it, though the probable number of them did blurring things to his mind. It was not even Virginia. Thought of her predicament only made him feel cold and sick and afraid. It was the old man, the use being made of an old man and his idealism.

The ruination of an old man's wonderful crazy dream shook the very life within him. Mention felt abruptly fortified to the depths of his soul. And, just like that, he knew with an implacable determination exactly what he must do to these people, if ever the opportunity came.

Funny how long it had taken him to realize that, quite by chance, Virginia possessed all the clues to the location of the island.

They couldn't know yet the extent of her knowledge.

They mustn't know.

Mention said in his steadiest voice: "My wife woke up in Cranston's laboratory and Cranston was there. She had no time to look around, because he brought her straight home. And that, if you don't mind, is where she and I will start for now."

He pushed his chair away from the table, then hesitated, glancing at Virginia.

There was a brief silence; and then one of the blondes, not Mrs. Patterson, laughed harshly. "I notice, Professor Mention, that your wife is NOT making any move to follow you. Is it possible she INTENDS to remember having seen something?"

It was a possibility that had already occurred to Mention.

It was up to her.

Slowly, Mention gathered his forces. He looked at Virginia, and saw that her face was sheet-white. Her lips trembled, as her glance met his—and then she looked away.

Mention said urgently: "Vir-

ginia!"

Once more, she looked at him. There were tears in her eyes.

"Virginia, you've heard what these people have to say. And it isn't what you know or don't that's at stake at all It's, are you going to become one of them, or are you not?

"Don't make your decision now.

"There must be things we can do. Surely, Dr. Cranston can be reached, if we persevere. I'm certain, if we could talk to him, that he'd finally make up his mind to kill these creatures. He's been isolated. He must be made to see that his life's work can yet be rescued from these human rats, these mass killers, these—"

He paused. He whirled on Torrance. "How many," he rasped, "how many human beings do you kill every year for their internal organs?"

"About five thousand," said Torrance without hesitation. "Mostly orphans, poor people who move around a lot, and families without relatives."

"Uh!" blinked Mention.

He hadn't expected an answer.

He had flung the question to point up a grim aspect of these people's activities. Now, he felt torn from his train of thought.

"Five thousand!" he echoed.

The total was bigger than he had ever thought. It shocked him. He had believed himself hardened to anything that might come out in this deadly interview. And wasn't.

He felt nausea. With a titanic effort, he caught hold of himself. Realization came that there was nothing he could say that would add any emphasis to the sum itself.

He did speak, however. He said wanly: "The defense rests."

He looked at Virginia-and she smiled at him through tears. It was a dreary smile. But a smile!

"Oh, you poor fool," she said. "You don't have to argue with me. You don't have to prove anything to me. There's evil here, beyond description. Evil of that curious advanced kind, which is only amused by the word and the realization. Look at them!"

She waved one hand, futilely. Mention had already looked. The nine faces were twisted in nine variations of sardonic amusement. Virginia's voice burned on:

"It's become like the evil of the universe, beyond the power of individuals to resist, with one exception. Only Dr. Frankenstein can destroy the monster he has created.

"The rest of us can but try to save our loved ones from the deadly

elements. Oh, Norman, don't you see-"

"I see," said Mention harshly, "that you're thinking of giving in."

"Norman." she said whitely. "they've been too frank. They've told us so much that it's obvious they don't care what we know. Don't you see what that means?"

"You're thinking of yourself when you say that," Mention said.
"Am I?" She looked at Tor-

"Am 1?" rance.

Torrance said: "Your wife is smarter tonight than you are, Mention. You see, she is safe. Cranston will somehow see to it that no harm befalls the few of us he thinks worth saving."

He turned towards Virginia. "If you start talking before two minutes have passed, you and your husband can go home. You will never again be bothered by us. And if we gain control of the organs, we guarantee that no harm shall befall yours. Naturally, we prefer that everybody with power should join us."

He looked down at his watch. "We do not make promises lightly, having no need for lies. It is now seventeen minutes to one. You have two minutes."

Virginia parted her lips as if to speak, and then she caught Mention's gaze. And closed them again.

She sat staring at him like a

hypnotized bird.

"Don't you dare," Mention almost hissed. "In the war, we discovered that there's no compromising with such things as these. Their word isn't worth the uttering. If you have any information, we'll use it to destroy them."

Even now, he mustn't let them guess that they did have the information.

Torrance said drably: "The two minutes is up."

He whirled on Virginia. "You fool!" he said coldly. "You've let him condemn himself to death. At this moment," he went on icily, "you may consider that your husband has one year to live. A minute from now, it will be fiftyone weeks, and so on. If at the end of fifty-two minutes you still haven't started talking, we shall kill him within the next few days.

"In any event he's a dead man. You can save him for a year. That's final. *Missis* Mention, start talking."

Mention climbed to his feet. "Virginia," he said roughly, "let's go."

Torrance reached up, and caught his arm. "Sit down, you idiot."

Mention smashed him in the face.

He felt incredulous the moment he had done it, astounded at his foolishness. But by then, the uproar had begun.

The waiters who carried Mention outside were not gentle. Nor were they slow. Mention succeeded in shouting once: "Virginia, don't you dare!" And then he struck the sidewalk with a hard plop.

After ten minutes, Virginia had still not come out.

The minutes dragged. Twice, Mention tried to go in. But the doormen were on the watch for him.

"Not tonight, Mac," one of them said. "You've had one too many."

It was Torrance who brought Virginia out. The man looked triumphant.

"The West Indies!" he exulted.
"What luck that she went out just as one of the rare twenty-jet planes passed, and that she noticed it was mid-afternoon there, but nearly noon when she got back to California. The continental time differences work in beautifully. We've got the old scoundrel at last."

He looked at Mention coolly. "It's too bad you're a returned man. We're really indifferent as to whether you live or die, but we've discovered that men who were officers in the army, navy or air force do not co-operate with us even to the extent of just minding their own business."

He finished: "Your wife talked after twenty-five minutes, and she didn't start to tell the truth till we took her upstairs to a lie detector. You'll be feeling a knife at the end of the allotted time—after which we'll force your wife to join us. Good-by."

He walked back into the hotel, with Mention's Luger pointing at him all the way. At last, gloomily, Mention took his hand out of the gun pocket.

"I don't dare," he said. "Killing one wouldn't do any good. Besides,



#### Check from Magazine Is Happiest Moment of Life

"One of life's happiest moments was when a check arrived from a popular magazine. The N. I. A. Course has already more than justified itself. A short article, including my picture was carried in 'Ambition'. Other articles have been published by the Baltimore Sun and Washington Post. Now the N. I. A. Course is helping me prepare my sermons."—David Wayland Charlton, 1117 Tyler Street, Annapolis, Md.

### "How do I get my Start as a writer?"

HERE'S THE ANSWER . .

First, don't stop believing you can write; there is no reason to think you can't write until you have tried. Don't be discouraged if your first attempts are rejected. That happens to the best authors, even to those who have "arrived." Remember, too, there is no age limit in the writing profession. Conspicuous success has come to both young and old writers. Where to begin, then? There is no surer way than to get busy and write. Gain experience, the "know how." Understand how to use words. Then you can construct the word-buildings that now are variety mixty shapes in your mixty.

struct the word-buildings that now are vague, misty shapes in your mind.

O. Henry, Mark Twain, Kipling, Ring Lardner, just to mention a few, all first learned to use words at a newspaper copy desk. And the Newspaper Institute Copy Desk Method is today helping men and women of all ages to develop their writing talent, , , belping them gain their first little checks of \$25, \$50 and \$100.

#### Learn to Write by WRITING

The Newspaper Institute of America is a training school for writers. Here your talent grows under the supervision of seasoned writers and critics. Emphasis is placed on teaching you by experience. We don't tell you to read this author and that author or to study his style. We don't give you rules and theories to absorb. The N. I. A. aims to teach you to express yourself in your own natural style. You work in your own home, on your own time.

Each week you receive actual newspaper-type assignments as though you worked on a large metropolitan daily. Your stories are then returned to us and we put them under a microscope, so to speak. Faults are pointed out. Suggestions are made. Soon you discover you are getting the "feel" of it, that professional touch. You acquire a natural, easy approach. You can see where you are going.

going.

When a magazine returns a story, one seldom knows the real

structive criticism.

The N. I. A. tells you where you are wrong, and why, and shows you what to do about it.

#### A Chance to Test Yourself—FREE

Our unique Writing Aptitude Test tells whether you possess the fundamental qualities necessary to specessful writing—acute observation, dramatic instinct, imagination, etc. You'll enjoy taking this test. It's free. Just mail the coupon below and see what our editors think about you. Newspaper Institute of America, One Park Avenue. New York 16. N. Y. (Founded 1925)

#### CANADIANS

Institute's Newspaper operations in Canada have been approved by the Foreign Exchange Control Board, and to facilitate all financial transactions, a special permit has been assigned to their account Canadian The with Commerce. Bank of Montreal.

ata Avenue, new 1	ork 10, N. 1. (Founded 1923)	1—————————————————————————————————————
Gree	Newspaper Institute of Americ One Park Avenue, New York 16	
Send me wi further inform	thout cost or obligation, your Wri	ting Aptitude Test and
Miss Mrs. Mr.	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Address	(All correspondence confidential. No salesman wi	

I can't afford to spend the night in jail."

Beside him, Virginia said dully: "I'm sorry, Norman."

"I'm sorry, too," Mention replied gently, "for what I said to you before."

She spoke again, but this time he didn't hear. There was a clock above the ornate entrance of the hotel. Its hands showed twenty minutes to two. Mention stared at them, and calculated.

The Los Angeles-Miami rocket was only ten minutes out from its glitteringly showy launching run. It would be thirty-five minutes yet before Edgar arrived in Miami and started his inquiries.

By then, Torrance and the others, having flashed the nerve "power" way to Florida, would be on their way to the island by the fastest jet plane available.

He made sure they weren't followed, by taking three different taxis to the airport.

They were on the 3:30 rocket from Los Angeles to Miami. There was one chance, Mention realized, as he sank deeper into the cushions from the enormous acceleration. One chance.

Virginia had been to the island. Torrance and those eight veterans of the organization who had attended the dinner hadn't.

When he told Virginia his plan, she stared at him somberly. She said bleakly. "Suppose Edgar started home on the quarter to three, Los Angeles time, rocket."

"I don't believe it." Mention said

flatly. "For years Edgar has palpitated for adventure. He'll stay till a quarter to five L. A. time, as I advised him to. But he won't go far afield. He's not that bold, not yet."

They found Edgar in one corner of the waiting room, reading a magazine.

He handed over the notebook. There were four twenty-jet planes a day in the West Indies, he gobbled, all on the same route, every six hours in both directions.

He led the way to an enormous wall map of the West Indies.

The route was marked in a white line in bold relief; and there was a tiny island shown at the probable time point.

In the city directory, Mention located the Miami Futurian Science Laboratories. A taxi took Virginia, Edgar and himself there. A brick cracked the glass, then sent it shattering to the sidewalk.

"Get in there, Edgar!" Mention urged. "Press button 243. And then beat it back to the airport."

Two minutes later, as the early morning sun burst through a fleecy bank of low clouds. Mention drew a radiantly powered Virginia into a doorway.

"Darling!" he said. "This is it!"

He went on doggedly: "It must work. They transported you to Cranston's home when you were just a dead body. And Cranston took you to the island in the same way. That radio impulsor inside you must build a force field all around you when you're 'charged'.

# What you do with your money can wreck you (and your Uncle Sam)



Bay, bay, bay! Foolish people are doing it, overdoing it. But sensible folks know that with every needless purchase—or every time you patronize a black market or buy above ceiling—you do your bit to force prices up all along the line. That's the way inflation gets a boost.



It can happen here—again! Today, with fewer goods in the stores while incomes are high, the danger of inflation is greater than ever. Inflation is always followed by depression. What can you do to head off another depression? Buy nothing you do not really—neally—have to have . . . today.



Save, save, save! That's the way to make America good for the boys to come home to. Pay up debts, put money in life insurance, savings bank, War Bonds. Every cent you save now helps to keep prices down—and when the war is won you'll have use for that nest egg you've laid away.



A home of your own, a better farm, a real vacation, something to retire on—these are things worth saving for. Store up your money now while prices are high. There's a time to splurge and a time to save: today, while money's coming in, is a good time—the right and patriotic time—to save!

#### 4 THINGS TO DO

To keep prices down and help avoid another depression

- 1. Buy only what you really need.
- 2. When you buy, pay no more than ceiling prices. Pay your ration points in full.
- Keep your own prices down. Don't take advantage of war conditions to ask more for your labor, your services, or the goods you sell.
- Save. Buy and hold all the War Bonds you can—to help pay for the war, protect your own future! Keep up your insurance.



▲ United States War message prepared by the War Advertising Council; approved by the Offices of War Information; and contributed by this magazine in cooperation with the Magazine Publishers of America

If they could move you, then you can take me along now."

He saw the expression on her face. He said earnestly:

"Don't forget, you've been there. And you know the way at last." He pointed eastward. "The island is over there. Visualize the hill you stood on that day when you came out of Dr. Cranston's underground laboratory. You can. I know you can."

He felt her stiffen with decision. "Hold me close!" she whispered. He felt her vibrant body press against his, responsively.

Somewhere nearby an Irishman began to curse in annoyance, something about a window having been broken on his beat, b'gorra.

The officer's voice was cut off curiously. There was a sudden tingling inside Mention, thrillingly sharp. And sustained.

The sensation ended. He was standing in a room lined with glass cases, staring at an old man, who confronted them with an ax in one hand and a revolver in the other.

"I have a little system," Dr. Cranston said in a queer, tired voice. "I phone Torrance up. If I can't get in touch with him, I

come here, just in case he's up to something."

He lowered the gun wearily. "Just when I'd half convinced myself that I would kill the first person who came in here, in barge two innocent people."

Mention did not hesitate. This was the man who could fool himself about things like responsibility for death.

He was going to have the chance.

Mention stepped forward and took the gun from the old man's unresisting hand.

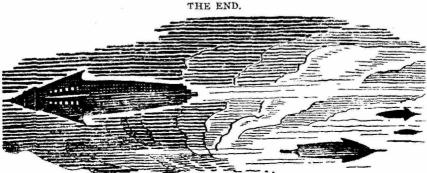
"I'd like you," he said, "to hand me the ax of your own free will."

Dr. Cranston shrugged wearily. "There's nothing else I can do."

He handed over the ax. He looked suddenly cheerful. "I suppose there's nothing I can say that will prevent you from doing what you have in mind?"

"You can," said Mention grimly, "indicate those cases which you think can be left intact. And don't indicate too many."

When Mention finally put the ax aside, twenty-three compartments remained unshattered.



# MCMENTS with fresh Eveready Batteries



"Lucky this is on practice maneuvers and lucky we had a tailor with us!"

"Keep Your Eye on the Infantry the Doughboy does it."

THE CHANCES are that you are having difficulty obtaining "Eveready" flashlight batteries. We want you to understand the reason for this wartime shortage. Practically our entire production is earmarked for the Armed Forces and vital war industries.

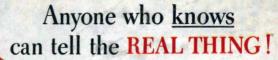
After the war "Eveready" batteries will be plentiful again. And for your advanced information they will be even better . . . designed to give longer life, improved service.













That's why CLEAR HEADS
CHOOSE CALVERT

It's quite apparent to a true judge of fine whiskey that Calvert is "the real thing." You see, it has a pre-war quality and excellence that simply can't be imitated.

And that may explain why, year in and year out, people who sell and serve Calvert tell us: "It's the whiskey most often asked for by name."

We believe that once you taste this gloriously smooth and mellow blend, you'll keep on asking for Calvert ...America's finest whiskey from the House of Blends!

Calvert Distillers Corp., N.Y.C. BLENDED WHISKEY

86.8 Proof. "Reserve": 65% Grain Neutral Spirits... "Special" 721/2% Grain Neutral Spirits