

THE MAGAZINE OF
Fantasy AND

Science Fiction

DECEMBER

40¢

\$200.00 READER CONTEST

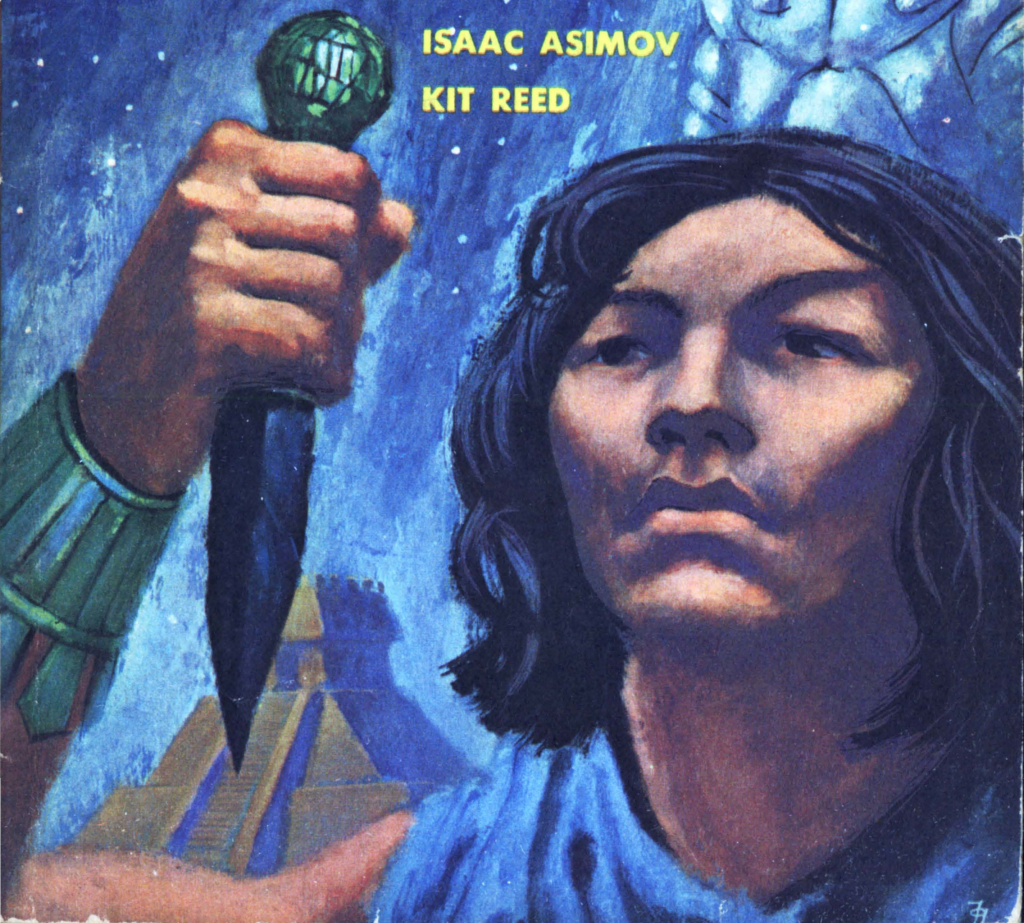


BUFFOON by Edward Wellen

THE FATAL EGGS by Mikhail Bulgakov

ISAAC ASIMOV

KIT REED



Fantasy and Science Fiction

DECEMBER *Including Venture Science Fiction*

Buffoon (<i>novelet</i>)	EDWARD WELLEN	5
The Man With The Speckled Eyes	R. A. LAFFERTY	27
Plant Galls	THEODORE L. THOMAS	35
From Two Universes (<i>verse</i>)	DORIS PITKIN BUCK	36
\$200.00 Reader Contest		36
On The Orphans' Colony	KIT REED	37
Wilderness Year	JOANNA RUSS	43
Somo These Days (<i>verse</i>)	WALTER H. KERR	44
Science: A Galaxy At A Time	ISAAC ASIMOV	45
Final Exam	BRYCE WALTON	55
The Docs	RICHARD O. LEWIS	66
Books	RON GOULART	70
The Fatal Eggs (<i>short novel</i>)	MIKHAIL BULGAKOV	74
F&SF Marketplace		128
Index to Volume XXVII		130
Cover by Jack Gaughan (<i>illustrating "Buffoon"</i>)		

Joseph W. Ferman, EDITOR AND PUBLISHER Isaac Asimov, SCIENCE EDITOR
 Ted White, ASSISTANT EDITOR Edward L. Ferman, MANAGING EDITOR
 Robert P. Mills, CONSULTING EDITOR

The Magazine of Fantasy and Science Fiction, Volume 27, No. 6, Whole No. 163, Dec. 1964. Published monthly by Mercury Press, Inc., at 40¢ a copy. Annual subscription \$5.00; \$5.50 in Canada and the Pan American Union; \$6.00 in all other countries. Publication office, 10 Ferry Street, Concord, N. H. Editorial and general mail should be sent to 347 East 53rd St., New York, N. Y. 10022. Second Class postage paid at Concord, N. H. Printed in U.S.A. © 1964 by Mercury Press, Inc. All rights, including translations into other languages, reserved. Submissions must be accompanied by stamped, self-addressed envelopes; the Publisher assumes no responsibility for return of unsolicited manuscripts.

Christmas Gift Rates



\$5.00 for one subscription

(Your own, new or renewal, or first gift)

\$9.00 for two subscriptions

\$3.50 each additional subscription

Order now—pay in January.

No additional postage for U.S. or possessions. Canada or Pan American countries \$.50 per year; other countries, \$1.00 per year.

THIS SPECIAL OFFER EXPIRES JANUARY 15, 1965

Send FANTASY AND SCIENCE FICTION as a Christmas gift to:

Name

Address

City State Zip

Name

Address

City **State** **Zip**

FROM

Address

City **State** **Zip**

ENTER my own subscription ☐ **new** ☐ **renewal**

Check one: ☐ I enclose \$____; ☐ Bill me after Christmas

Please send me a gift card for each person on my list—to be personalized with my own signature and mailed from my house.

MERCURY PRESS, 347 East 53 St., New York, N.Y., 10022

It was not by accident entirely that so much of the domestic and foreign policy of the doomed, and deservedly-doomed, Aztec Empire, was predicated upon the phases of the planet we call Venus. We have observed this star in many skies; nowhere does she seem to burn so bright as over Anahuac, the Aztec homeland. There were however, other stars in whose risings and settings the pre-Spanish conquerors of Mexico read strange omens; and here Edward Wellen selects one such and gives us an impressive and beautifully written story which will, we think, be long in fading from your memory . . . if, indeed, it ever does.

BUFFOON

by Edward Wellen

THE PRIEST BARELY NODDED his head, his long hair stiff with clotted blood and dirt hardly stirred. He wiped his palm on his black robe, then gripped the jade-and-turquoise mosaic hilt of his knife. His aides measured their movements to the two-toned drum beat and to the unconsciously united heartbeats of all those watching from the foot of the pyramid. Four seized the sacrifice by his arms and legs, flung him on the slightly rounded stone, and held him spreadeagled on his back; the fifth held his head by a turn of the hair. The priest swept the obsidian blade from breast-bone to groin, reached in and

with a twist tore out the heart, held it up to the sun, then burnt it, still beating, in the eagle-cup.

Klon turned laughing to Zwordil and found that Zwordil too had seen the jest-potential.

The Construct saw that both were laughing. It spoke.

"We'll go on then."

It showed them the third planet of an average star swimming within the ken of one of its spaced sensors. It showed them that tribes on the planet, and outstandingly the people they had just seen, held fire-dousing-and-rekindling rites in the fall of every fifty-second time around the star. It showed them that these rites took place

when one constellation zenithed at midnight. The world's tongues called the constellation Kimah, Mao, Parwin, Al Thuruyya, Gro-aperikie, Pizaana-Cache, Sette Palommiele, Sifunsterri, Cran-narain, Makali'i, Nanook, Pleiades, Karakarook, Tianquiztli, and many other names. Many names but one tradition—that the planet had suffered disaster, a great flood, in some past age at the moment of a midnight culmination of the constellation. It showed them this out of its memory in a swift unfolding, then paused briefly.

Klon felt Zwordil and himself grow tense. The Construct spoke.

"Now for the deciding item. You're to tell me the relevancy. Any questions?"

Neither Klon or Zwordil had any; the one asking for more information lost a point, while the other shared in the information at no cost.

"Ready?"

"Ready," Zwordil said.

"Ready," Klon said.

The Construct shaped the air about each to seal them off from one another.

Klon knew a stab of fear that Zwordil would beat him out. At the signal to begin, he spilled out his answer in speedtalk. He waited a long moment. It was all over now. Soon he would know if he had won or lost. All through the competition Zwordil had been his leading rival. Each had attained

to the rank of Buffoon. Each had lived long—two rejuvenations for Klon and probably the same for Zwordil. Each was almost wholly free from the pressures of animal needs. All that remained to give meaning to existence was to play out a Final Jest. The one great thrill, the one real charge, could only be one you paid for with your life. He did not want to think of losing. It would be wearying to wait till the Construct found somewhere another Final Jest pattern and set up another competition.

The shell of air vanished into air and the Construct spoke to them.

"Both of you gave the right answer. The relevancy is that the constellation in question, from the point of view of the world in question, is one whose brightest star is our own sun. But because Zwordil took time to activate my frustration circuit, Klon came in ahead."

He had won. He knew sudden misgiving. He hadn't stopped to remember the frustration circuit that forced the Construct to indicate whether it was using the pattern for a jest of its own. Too late to ask now. But he relaxed. Zwordil had played it safe and yet had gone on to give the right answer. So all was well. He had won, and, for all Zwordil or the Construct knew, he had deliberately passed up the safeguard, gambling to win. He smiled kindly upon Zwordil,

who was smiling back twistedly.

The Construct spoke.

"Klon, your Final Jest will take place at the next culminating ceremony. According to my projection of events, it will probably be the last."

Klon was vaguely aware Zwordil was leaving; Zwordil put his hands behind his back in farewell and homed to await another competition. Klon moved into a chamber of the Construct for the changes in feature and coloring and the gaining of learning that would end with the Construct saying,

"You look, speak, and think Aztec. You're no longer Klon."

The youth let a smile unmask his proud handsome face.

"I've thought of that. I'll call myself Yollotl."

He and the Construct laughed heartily.

The bloody fingers of dawn tore out the heart of day and held it up, still beating, to the darkness. The sun renewed the world. Birds, their voices and feathers glistening with dew, blazed the air. A grasshopper whirled out of Yollotl's way.

Yollotl moved slowly up the slope, crouching to keep from showing against the sky. He halted, lay flat, twisted forward, and looked through the grass he breathed.

The land lay open, all but a

clench of mesquite. The village, drawing the trail, stood beyond. Sounds of waking came faintly from the village and threads of smoke rose thicker. She lay still, watching the mesquite for as long as it took shadow to shrink the breadth of a finger, his head unmoving when swaying blades grazed his face. All that while, the mesquite looked out blindly through its fringe. Then—sunlight striking the point of an arrow or a spear—it glinted.

He smiled. He moved back down the slope. Brushing dew from his tunic, he returned to the trail. He stepped into a lope and rounded the hill into the open. He veered from the trail as though to put the mesquite between himself and the village. As he skirted the mesquite his shoulder blades winged backward; the jest would be on him if it ended this way.

A shout and an arrow passed his ear. The arrow quivered the ground in front of him. He stopped. He made his chest heave as though with long running and a measure of fear. The arrow was Chichimec; someone had clipped the feathers at the nock end so that the shaft would fit the peg of an Aztec throwing-stick. He turned his head slowly. Two men had stepped out. The fat one stood back upon himself, ready to hurl an arrow. The thin one was fitting an arrow into his throwing-stick. Their eyes ran over him.

"I'll take him to the village."

"We'll both take him."

"It was my arrow that stopped him."

"It was my arrow that held him."

The fat one was Chimalpopoca, the thin one was Xiuhcozcatl, and the man they brought him before was Acamapichtli. Others of them had crowded into the room but Acamapichtli was the tecuhnenque. All had let their hair grow down to the waist. None wore the clothing of warriors. All wore the clothing of traders. But the bales and baskets of goods that narrowed every room in the village they had not come by through trading.

Yollatl remained silent under-questioning until Acamapichth smiled and said,

"What were you running from?"

Yollatl made his face and voice sullenly proud.

"I do not run from. I was running toward. I was running to warn my village that an army comes."

Acamapichtli came up straight, deaf to the sudden murmuring around him.

"It comes from Tenochtitlan?"

Yollatl spat on the ground.

"From your city, yes."

Acamapichtli held back another's arm.

"How far away is this army now?"

"Three days' march."

"Did you see who heads it?"

"I saw."

"Then tell."

"A man of not more than twenty. Tall, slender, long-faced."

The others traded glances and nodded. They talked among themselves.

"A younger son of the king."

"Montezuma would be twenty now."

"What manner of man?"

"If he is as I last heard of him he has yet to learn humility."

"He'll be burning to win a great victory."

They laughed, then sobered quickly. They looked to Acamapichtli. He spoke.

"We can't wait here for him to find out that we're not exactly under siege. We must pack up and go."

"Home?"

"Of course, home. How better can we show our good faith than by bringing back goods for the king to tax?"

They laughed, then sobered seeing Acamapichtli sober. He went on.

"The burning young prince will wonder that we should have broken out now, just when he comes to our relief. He will realize that we have learned of his coming and he will understand that we are proving our right to the spoils. He will not mind that as much as that we will have robbed him of

battle glory." He smiled. "He will put a good face on it, but if he should ever come to power he will bleed us."

"Does that not trouble you?"

"I see ahead, but I live in now. And now is for leaving. The sooner we leave, the nearer home we meet him on the road. The nearer home, the easier for him to put a good face on it."

The others began speaking, more and more eagerly, about home. A few, Xiuhcozcatl among them, gazed at the baskets of spoils and looked sour, as though sorry they could not remain to wring more from the countryside.

Acamapichtli turned his gaze on Yollotl. His eyes, hard as cacao beans, touched the turquoise mosaic ear pegs and the gold nose crescent. He spoke softly.

"Where is your village?"

Yollotl knelt silent. A point nicked his side. Acamapichtli sighed and shook his head. The point drew away. Acamapichtli smiled kindly on Yollotl.

"He was heading beyond. His village is not on our way home." He rose from the reed mat. "In any event it is now we must think of: use it to make ready to leave." He slapped Yollotl on the shoulder. "You have fallen into good hands." Yollotl heard him add low to another, "Strong back."

Yollotl smiled to himself. Acamapichtli was two-tongued as the teponaztli drum. Acamapichtli

turned to Xiuhcozcatl and Chimalpopoca.

"Who is his owner?"

"I am."

"I am."

Acamapichtli twitched his lips.

"Then we must leave it to the owned."

Yollotl looked at Xiuhcozcatl and Chimalpopoca. Each sought his eye. Xiuhcozcatl's eyes were fiercely demanding, Chimalpopoca's were plumply beseeching. Yollotl met Xiuhcozcatl's gaze long enough to acknowledge silently between them that it had truly been Xiuhcozcatl's first arrow that had made the capture, then he pointed to Chimalpopoca. He laughed inwardly, thinking how he had just made for himself a bad friend and a good foe.

The laden caravan left the picked bone of a village. It was a village of women and children and a few old men and such of the mute hairless dogs as had not fattened enough to trot along for eating on the way. Looking at the children of three years and younger it was plain to see that the traders had planted their seed. The people, mute as the dogs, watched the caravan take the trail to the northwest and the high valley of Mexico.

They marched, the traders each with his long wooden staff in his right hand and his fan in his left and his weapon slung ready, the

porters each with a broad band of woven straw across his forehead to take the weight of the plumes of parrot and quetzal and blue cotinga or the tortoiseshell or the jaguar and puma skins or the amber and jade and emeralds in the carrying frame on his back.

Chimalpopoca had proudly taken for Yollotl a heavy burden. From time to time Yollotl made as though wiping face and neck; implants of thermostatic tissue kept him free from any need to sweat. He pretended to down the cold beans they gave him to eat on the move; his skin photosynthesized all the energy he required.

They made camp. The porters did what they could to give ease to their feet and their backs. The traders stacked their staffs. With agave thorns the traders drew blood from tongue, ear, and private parts and sprinkled their blood on the staffs. They burned copal incense, offering it up to the staffs. They made a great show of all this, and would every night stop of a journey; but it was only fitting, for each rod possessed the magical virtue of Yacatecuhtli, god of merchants. The porters watched in dull awe; they felt still the ghost of the mecapalli biting into the brow with the ghost weight of the load and there was dullness of thought as though the tumpline had cut deep into the lobes of the brain, but deeper in the brain was the lurk of awe.

Yollotl lay peacefully awake through the night. He looked at the stars and found the cluster of Tianquiztli in the east. He smiled watching Xihcozcatl and Chimalpopoca stand their separate turns at guard. Once, toward midnight, he felt a faint uneasiness, but he put it down to the strangeness of a coyote giving tongue.

They met Montezuma before noon. The chiefs in their feathered cloaks stood out from the common soldiers in their white cotton mail. Montezuma with his bearing and the quetzal feathers in his red leather headband stood out from the chiefs. He was ready for the meeting. His plainclothes mice had been scouting ahead and on the flanks and had alerted him. He seemed to have taken bravely the knowledge that he had set out on an empty mission.

Acamapichtli had passed word to appear weary but not weak and the traders wore the look of hard campaigning. He stood before Montezuma without raising his eyes but with flags of precious feathers, trophies of battle, flying behind him. He greeted the prince and thanked him for coming. Then, as though to put out the flame of anger burning in Montezuma's heart, he beckoned to Yollotl.

"As the prince can see, this captive is a leader among his people. Has the prince ever seen a finer figure of a man?"

Xiuhcozcatl smiled and Chimalpopoca showed dismay.

"And as to bravery, Chimalpopoca here will tell you how valiant a fight this man put up."

Xiuhcozcatl scowled and Chimalpopoca showed fierce pride.

Chimalpopoca started to tell how valiant a fight Yollotl had put up before Chimalpopoca, with some help, had subdued the man but Montezuma stopped him.

"I do not need gifts of slaves. I gather my own sacrifices."

Montezuma's glance passed over Yollotl. Yollotl chided himself. He had miscalculated; he ought to have let himself fall into Montezuma's hands, not into those of the traders. He looked at Chimalpopoca. Chimalpopoca appeared not to know whether to feel disappointment or relief. He would have to find a way to get a hold on Chimalpopoca. Acamapichtli gestured him away.

They made camp there. Again at dusk the traders sprinkled their blood on their staffs and burned copalli. This evening they had a much greater onlooking.

A young girl stood watching Yollotl for a time, a camp-follower by the yellow cream and the rouge on her face and by the loose hair. She gazed at him boldly, chewing chicle and showing that she had dyed her teeth red with cochineal, then turned away. Yollotl was well to look at but it

was the traders it was well to do business with.

There was much business, at the rate of eight cacao beans. But at last there was silence even in the shadows and then sound sleep.

The relief column had thrown out a perimeter, so the traders did not post guard but left it to the virtue of Yacatecuhtli in the staffs to mount guard over their goods. Yollotl lay watching the sentry nearest him. The soldier had stiffened the cotton armor to turn arrows by soaking it in brine and the salt crystals glittered in the moonlight. His maquahuil hung from his wrist by a leather thong and the obsidian splinters toothing its edges gleamed as it swung to his pacings. Yollotl waited until the man's relief came and the two were talking. The sister of one had tied the navel cord of her new son about a toy shield and toy arrows for him to bury in a battlefield that the boy might grow brave; the soldier griped that he would now have to carry the damn thing all the way back if they did not on the road home stop by some place of old fighting. Yollotl snaked to the staffs.

He lay behind the pile of staffs and drew down the topmost noiselessly. It was sticky to the touch. A slight shifting sensation passed from it into his hands as he moved it through them to get hold of an end. He smiled. As he had guessed, it was hollow its full length and

something filled this hollow. A plug tipped the staff. He worked it loose. Stones, in cotton, came forth, and quills of gold dust. He smiled again. He replaced the jewels and the gold, tapped the plug home, and put the staff back noiselessly.

He snaked to his place. With dirt he rubbed his fingers clean. He laughed silently. Chimalpopoca's slave was Chimalpopoca's master.

Yollotl watched Chimalpopoca's face redden with emotion and effort as the master bent to pick up the two sticks he had placed in the doorless doorway to safeguard his household while he journeyed.

Matlaxochitl, the mistress, greeted her husband smilingly and in an aside ordered a bent woman slave to fetch water and pulp of amulli root; now she could soap and rinse her head more than the once in eighty days her husband's absence had held her and the children to. It was a meeting of strangers. The children greeted their father with eyes four years older. Matlaxochitl thrust forward Tlacotl, a plump boy of thirteen, that he might be the first to greet his father. But Chimalpopoca's soft face set and he eyed the boy coldly and to him alone of his sons did not say "My son." Yollotl gathered there had been a question of timing about the boy's birth.

But Chimalpopoca was too full of present rejoicings to let a mar-

rowless bone of the past gnaw at him long. He put Tlacotl out of his eye and told how Ahuizotl the king had welcomed the traders at the palace most graciously and how after they had laid the trophy banners at his feet Ahuizotl had called them his uncles and had granted them permission to wear gold and feathers during their holidays and how he, Chimalpopoca, had stolen a glance at Montezuma and had struggled to keep from laughing.

Then, with meaningful winkings at his wife and whisperings of "tonight," at which Matlaxochitl covered her mouth but let her eyes laugh, Chimalpopoca went into his temazcalli to sweat and switch away the dust. Matlaxochitl, on her broad face a measuring look at Yollotl, told a boy slave to show the new slaves where they would stay, herself shooed the children indoors and went to wash her hair, and so in a moment emptied the courtyard of human life.

The slave boy, who had recently taken over his older brother's bondage on his brother's coming of age to marry, overslept. And Matlaxochitl's rough tongue and the boy's later recounting in the slave quarters and the loud hushings that Yollotl himself had heard in the night told Yollotl that Chimalpopoca's "tonight" had meant that Chimalpopoca had gone out on midnight business.

Today meant the coming of the tax-gatherers—each with his top-knot nodding in wise doubt and his drone nose twitching at the bunch of flowers in his hand to counter the smell of suspicion and his heavy-lidded eyes taking in the king's share of the spoils—and their clerks with calculating cords and their attendants with fans. So, last night, the traders had lightened the spoils as much as they dared and had poled the offtake through the canals from warehouse to hiding places. Chimalpopoca had blindfolded the boy going and coming, so that the waters did not gleam for him with the flaring from the ever-burning fires of the altars on the pyramids.

Soon, Yollotl thought gloating, the priests and the people would extinguish all fire and the people would wait in fear to see if there would be new fire. Soon would come the midnight culmination of the constellation Tianquiztli—and with it the feast of The Binding of the Years to bring to pass that the end of one fifty-two-year period should not be the end of all time but be the beginning of another fifty-two-year period. He did not have long in which to force three masters running to get rid of him. Only then, according to law, would someone be free to buy him for sacrificing. He had to begin in earnest.

The other slaves had been happy to tell him this was not a happy

household. The bent slave woman cackled telling him that the first fire Matlalxochitl had lit in this house had burned badly, a bad omen at the very start of the marriage. He remembered Matlalxochitl's measuring eyes. He could not let Matlalxochitl involve him in an affair of the heart. If they took him in adultery he would not die by the knife but by a skull-crushing stone. Neither the manner or the timing of such a death was in the pattern of his Final Jest.

He began his first day in the household by stepping upon the three hearthstones. Matlalxochitl screamed. He dropped his armful of wood and stood gazing at her with an empty buffoonish grin. He had put fear into her, and rage. She ordered his beating, even though his offending the hearthstones meant that he surely would die very soon.

"Harder! Send him at least three steps nearer death!"

Chimalpopoca looked anxious when he heard. He wondered aloud whether it would not be wise to sell Yollotl before the man died on their hands, profitlessly. But then he eyed Yollotl's strong, quickly healing body and shook his head.

"I set no store by old wives' tales. Besides . . ." But he kept his besides to himself.

But Yollotl soon guessed it. He caught Chimalpopoca going

through his wife's wardrobe while she was out shopping. Chimalpopoca, unaware anyone watched, held up piece after piece of clothing as though hoping to find holes or signs of holmending and ground his teeth when he found neither.

Often Chimalpopoca left Yollotl at home, throwing him much in Matlaxochitl's company, and on returning stole the first opportunity to examine his wife's wardrobe once more. But there were times Chimalpopoca needed Yollotl's back to carry his plunder to market and trade goods back from market.

Once the traders had celebrated their great homecoming feast, The Washing of Feet, they began planning the next caravan. This would have to be a true trading expedition, for the soldiers would not stand so soon again for taking the leavings of conquest. The traders would wait for the lucky sign One Snake to come around before setting out. Meanwhile, Chimalpopoca was taking his profits and laying in cloth, embroidered clothes, rabbit's hair blankets, bells, obsidian knives, obsidian and copper earrings, cochineal dye, herbs for healing and herbs for scenting.

And at such times Yollotl more than once saw Chimalpopoca meet, take aside, and whisper with a girl Yollotl remembered as the eight-cacao-bean camp-follower; her name was Nenetl.

Seizing his first chance, smiling to help along an old wives' tale, Yollotl stole into his master's room and took sharp little bites in Chimalpopoca's best cloak.

Soon after, all heard Matlaxochitl's tongue lashing Chimalpopoca.

"Rat's gnawings; you can't get around it! You've been committing adultery!"

Chimalpopoca denied all wrongdoing and decried the foolishness of believing in such signs. But he could not hide the look of guilt and fear on his face.

He set out traps, first placing the corn-grinding roller outside so that it would not warn the rats.

Chimalpopoca stared at Yollotl.

"Sell you? Why should I sell you?"

"I have behaved badly. I have refused to work. I have taken things."

Chimalpopoca smiled understandingly.

"When two have fought as foes, desperately, savagely, a tie binds them. I will remain patient. Do not take your fate too much to heart. In time you will make a good slave."

"Sell me."

"I am the master. It is for me to say if I will keep you or sell you. I will not sell you. Why should I?"

"I wish to pass through three pairs of hands so that I may die on the stone."

"Die? You have set your heart on dying? Madness. Worse, heartless ingratitude. Have I denied myself to feed you only to fatten you for sacrifice? Are you not a man? Why would you be an empty husk before your time? An end of this talk. It is not for you to tell me what to do with my property. I will not sell you."

"Sell me. Would you have the tax-gatherers learn of the rich hollowness of the traveling staffs now resting in the temple of the merchants?"

"Enough. I will not have you arguing with me. I have decided to sell you, and nothing you say will move my heart."

Chimalpopoca admonished Yollotl gravely three times before witnesses for stealing and refusing to work but Yollotl did not mend his ways and one morning Chimalpopoca put a heavy wooden yoke about Yollotl's neck and led him to the slave market at Azcapotzalco, having, the evening before, taken out from its wrappings the arm of a female monkey and offered chili peppers to it so this would be a fine day for selling. He had also given in to Matlalxochitl and grudgingly let Tlacotl come along to see how things went; as Matlalxochitl said, and said, one day Tlacotl would be a trader like his father (she stared Chimalpopoca down) and, though he went to the calmecac with the children of

dignitaries, seeing such things would serve him better than the lessons in flower-sniffing he learned at the calmecac.

Tlacotl's eyes begged Chimalpopoca to look upon him with favor; his face and legs bore scars of maguey spines, he was lean from fasting, he had hardened himself to the cold by bathing at night. But Chimalpopoca's eyes disowned him.

Yollotl watched with idle interest the bargaining over a slave who had passed through the hands of three masters. The bargaining paused while a party of nobles, pulling their feathered cloaks about themselves, passed through the throng. Then the bargaining took up again and Yollotl quickened to see that the eyes of the would-be buyer streamed freely.

Fear gripped Yollotl. Had the Aztecs degenerated? Did the maudlin one mean to buy the sullen slave only to free him out of compassion? If so, it was a bad omen for the outcome of his Final Jest. But when he listened closely and unwound the whisperings of the crowd he understood that the man was spokesman for the guild of featherworkers of the Amantlan quarter, who had pooled to buy a sacrificial slave. There was no doubt that the slave would end on the stone. Then why the tears? Yollotl remembered the feather cloaks passing and smiled to think that the spokesman must be a

featherworker himself and allergic to feathers. Tears streaming, the spokesman was proving a reassuringly hard bargainer. The slave's owner drew himself and the slave up.

"The slave is tall, male, young. What more do you ask?"

"The slave is tall, yes; male, apparently; young, no."

"He saw light in the year of the great earthquake, making him just twenty-six."

Yollotl had been smiling to himself. But now fear gripped him again. What he had just heard triggered his mind into full reckoning awareness. The earthquakes had taken place nineteen years after the last Binding of the Years. The Construct had led him to believe that at this point in the pattern another thirty-three years would have passed, bringing the fifty-two-year cycle around again. If it was true that only twenty-six years had passed since the earthquakes, then he had come the wrong distance in time.

It was true. He knew now the reason for his unease that night in camp when he had gazed at the stars; Tianquiztli had not mounted high enough then to be coming soon to its midnight culmination. He saw now the meaning of Zwordil's twisted smile. The Construct was using the pattern for a jest of its own. It had tricked him into arriving here not a mere several months before The Binding of

the Years but a long seven years. It was a fine jest.

At least the Construct had sent him to the right planet. But he had seven years to live out.

The featherworkers had led the slave away. It was his own turn on the block. It must have been as plain to Chimalpopoca as it was to Yollotl that Xiuhcozcatl, his face cutting through the crowd like a copper hatchet, was waiting to outbid everyone. But Chimalpopoca swung into a long speech on Yollotl's obvious merits. Xiuhcozcatl, his eyes narrow as though fixing on a throwing-stick target, seemed to smile at the look on Yollotl's face. He cut in.

"Eight cacao beans."

There was laughing. Chimalpopoca lowered his head with a scowl and his jowls grew into angry wattles. Then he looked past Xiuhcozcatl and smiled as if at another bidder. Xiuhcozcatl spoke again, quickly.

"I will name you a price in cloth. I will give you—"

Yollotl moved to break free. The bar of the yoke tore from Chimalpopoca's grasp. Yollotl sprang backwards, turned thrust through the watchers. The cry went up.

"A slave escapes!"

Seeing and hearing, people gave way, they melted before him. Others, seeing a slave wearing a yoke fleeing through the marketplace, took up the cry but made no move to stop him, for none but the mas-

ter and his son might pursue the slave—any other would become a slave himself. The market police looked on. Chimalpopoca stared in frozen disbelief at Yollotl's sudden change of heart, at Yollotl's vanishing form. He came to life, turned to Tlacotl. The boy's mouth had dropped open. Tlacotl backed away. Chimalpopoca's expression turned to urgent kindness.

"Come, my son. After him, my son."

The yoke slowed Yollotl. It forced him to crab his way between rows of stalls. Fearful warning, hollow thudding, angry shouting; he looked back to see a pyramid of calabashes spill as Chimalpopoca and Tlacotl veered too sharply in an effort to cut him off.

But now there was open space and he could run faster. Ahead stood a wall and an opening in the wall.

"This way, this way."

At first Yollotl thought it was the parrot who directed him, then he swung his gaze away from the cage and down. It was a dwarf, wearing rubber footgear the better to bounce, bouncing now not to amuse the king but to express his own rubbery excitement.

"This way. This is the king's garden, but you are not free till you are in the palace."

The dwarf pulled at Yollotl's tilmatli. Wondering what jest the dwarf meant to play on him, Yollotl went along. They passed

swans, ducks, egrets on pools. They came under a roof. Yollotl heard and smelled large beasts before he saw them. He watched to thrust the dwarf into any jaws the dwarf planned to open for him. Jaguars and pumas blinked golden eyes; they yawned, breath foul with man meat, they sharing in the communion. Pink eyes stared at him; human albinos in cages, to look at and to keep for sacrificing during eclipses of the sun. The dwarf led him past coyotes and foxes to cages holding eagles and vultures. For an instant, an eagle's glare turned the angles of its cage inside out, so that the cage caged all the rest of the universe, then the soaring flame blew out and it was an old bird in a cage. But it was another cage the dwarf stopped before and pointed to. Yollotl saw a bird of gold with eyes and feathers of precious stones. The dwarf's eyes had a far look.

"That is the likeness of a quetzal. It is the one thing the king cannot have. Its home is in the Land of Bats. It will not live in a cage because it pines to be free."

"I have heard of the quetzal. It dies in a cage not because it pines to be free but because it feeds off insects on the wing."

But the dwarf seemed not to have heard Yollotl.

"Come. I am Tepotzitotzin."

"I am Yollotl."

They left the zoo and crossed an open space to a great building with a great doorway. Yollotl stopped on the bottom step and looked around. He saw Tlacotl. The boy stood on the nearest bridge raking all the ways over the canals in wild sweeps of his gaze; he caught sight of Yollotl and leaped toward him, shouting and gesturing. Yollotl mounted the steps slowly toward the guards at the doorway. The guards laughed to see Tepotzitotzin bounce anxiously pulling at Yollotl. The boy glanced back, stopped dead, helplessly watched Yollotl enter the palace.

"Now you are free."

"Now I am free."

Tepotzitotzin helped Yollotl remove the yoke.

"You have no land, no goods, but Yollotl is no man's slave, no man is Yollotl's master. You can leave without fear. Where will you go? To the chinampas?"

"Yes."

"My mother and father live there. If you meet the mother and father of Tepotzitotzin tell them Tepotzitotzin is well and happy."

"You are still a slave to the needs of the flesh. Eat."

The old man avoided his wife's eye and nodded encouragingly.

Though much older than this man, Yollotl had never felt age. He smiled to see this child of fifty put a hand to his back when getting up and sitting down.

"There is only stone dung."

The woman's voice had the rough music of a notched human femur rubbing a rasp of conch. It was a time of famine and the old woman offered the stone dung with an almost agonized look of hope that he would refuse. The old man had skimmed floating stuff from the lake and the old woman had squeezed it into these cheese-like cakes. Yollotl smiled.

"Stone dung is good."

He helped himself freely, in fun and in keeping with his pretense of having the failing of hunger, though when none watched he would bury the food in the dirt. The old man saw Yollotl's smiling gaze rest on the old woman and his face brightened with pride.

"She is a good wife and a good mother. It was she who reshaped Tepotzitotzin into a hunched dwarf so that he would grow up to find a place in the palace."

She passed the stone dung to her husband.

"Your lordship will take and eat."

The old man looked at Yollotl over his cake.

"I saw light on the day Four Dog. You know the saying? 'Four Dog's child will prosper even though he never does a lick.'"

He showed his gaps in a laugh. He looked out at the green light of dusk on the green waters.

"The god has gone in. You will stay with us this night, and tomor-

row we will begin to make your own land by piling lake-bottom mud on a wicker-work raft, and then I will help you build a proper house of wattle and thatch and mud. You are fortunate; there is a good spot near the nightsoil barges. Are you a Four Dog's child too?"

Willow roots grew to lace the mud and grew to anchor the raft.

The night was cold but Yollotl did not feel the cold though he stood well outside the warmth and the light from the great tripods in which pitch pine burned on the steps of the teocalli. The steps marched up to the ever-burning fire on the altar within the temple—"ever" meaning fifty-two years—but Yollotl did not see how to make his way to the temple storeroom without raising an alarm. The priests were always rising during the night to offer copal incense and their own blood to the sun.

He stood gazing up out of shadow while flames and drums tore the dark silence. He was forever thinking of some jest to help fill the time. He had seen the young war captive without blemish who for a year would be the god Tezcatlopoca; where the young man sauntered, tinkling with gold and turquoise and playing his flute or puffing his cigar or smelling his flowers, the people flung themselves down and ate dust. He had

seen the captain making sure the eight guards always with the god stayed alert; if the god escaped it was the captain who would have to take the god's place on the last day. He had seen much sacrificing here and had watched how the priest reached into the small yellow pouch slung over his back and cast a powder in the victim's face or dropped a pellet into the incense basin and the victim had come without struggling to the stone and the knife. These things formed the pattern of a jest. But he had not seen how to get into the storeroom to carry it through.

A hand closed on his wrist. He stiffened; then he relaxed, even before he heard the low laugh. It was a soft hand, a girl's.

"Did you think me one of the Cuateteo?" She drew him with her out of the shadow. "See, I am no monster of the night."

He knew her. She was Nenetl, the camp-follower, the friend of Chimalpopoca. She knew him too. Her mouth twisted.

"You owe me a life. You know Chimalpopoca's heart failed him chasing after you?"

He smiled.

"I know. Are you bitter?"

Her eyes widened.

"How, bitter? He would have got rid of his wife; he would have married me. That is what he said. But you did what was good for you. No, I am not bitter about

that." She drew out a small heap of cacao beans. "About this that happened tonight I am bitter."

He took a bean. It weighed right, but then he saw that someone had bore a hole in it to draw out the fat and had packed the hole with dirt. He smiled and handed it back.

"You will know the man again?"

She shrugged and put away the beans.

"A man is a man. I will make all men pay." Her eyes and her voice grew soft. "But I like you. Do you like me?"

It would be fun to lead her on before he thrust her from him.

"When first I saw you look at me—by campfire, do you remember?—I thought at once of the riddle, 'What is the mirror that dwells in a house of pine branches?'"

"The eye behind eyelashes. Yes, I have pretty eyes." A chill wind had been whipping the water of the canals. She shivered now. "Why do we stand here?" She rubbed against him. "Do you not want someone to warm you tonight?"

He moved to thrust her from him with a laugh. His glance struck the temple. He had seen men carrying wood and water to the temple. They were not slaves or sharecroppers, but freemen. When a freeman married, the state gave him land and inscribed him on the rolls; the palace and

the temples could call him at any time to bring wood and water, or to sweep, or to build and mend bridges and roads. A man working on such a fatigue party might have a chance of stealing into the temple storeroom. He took Nenetl's arm.

"The night is cold."

"Forgive an old man his loose tongue. But I have seen you with the woman Nenetl. Do not throw yourself upon women like a dog upon its food."

"Nenetl and I are to be man and wife."

"Ah. I have said too much."

Yollotl stopped sweeping and leaned on the broom handle. This was the heart of the city. This was where the wandering tribesmen had seen the eagle sitting on the cactus and holding a serpent in its talons, the sign that here was the promised land. He stood on the platform at the top of the pyramid, in front of the sanctuary. From this height he saw to the southeast the two great volcanoes and their dark woods and their snows. He saw the three causeways that led into Mexico—the southern causeway with one leg in Coyaocan and the other in Iztapalapan, the western causeway stretching from Tlacopan, and the northern causeway reaching from Tepeyacac. He saw the aqueduct grasshoppering from Chapultepec with sweet water for

the city. He saw the canals and the causeways and the bridges making and breaking the causeways; they were like the interweaving of basketry. He saw the many boats going this way and that on the lake and the canals. He saw the high temples, all shining white, and the terraced houses, and the towers commanding the southern approaches. Then his eyes swept to the great marketplace; the hum and the murmur carried more than a league. He heard footsteps behind him. He worked the broom.

A man had come out of the sanctuary, his eyes opening slowly to the sunlight. It was the prince Montezuma, in the cloak of a simple priest. Montezuma frowned a bit on seeing him, as though dimly associating him with something unpleasant. Then he forgot Yollotl and set his face in a look of calm sorrow, as if remembering that his father the king had just died. But under the calm sorrow was something else, as though he were a priest of Xipe Totec wearing the slippery skin of the man he had just flayed.

Montezuma gazed down at the open square where the tzompantli stood, the skull rack, an abacus counting its own thousands. Yollotl moved the dust quietly. Montezuma stiffened. Yollotl looked. A procession was rounding the tzompantli, heading toward the temple. Montezuma whirled. He

swept the broom from Yollotl's hands and began moving the dust.

"The messengers come! They have named Montezuma to be our king!"

The sanctuary emptied. Yollotl let himself slip back through the gathering. Montezuma, seeming unaware of the ascending messengers or of the hum and murmur around him, fixed his eyes on the steps he was cleaning, and the messengers, Nezahualpilli king of Tezcuco leading them, came upon him so.

Nezahualpilli looked at Montezuma as though comparing this good son with his own son, whom he had let die for writing verses to his concubine; he nodded as though approving the choosing of this prince of humble bearing over the prince's older brothers.

Yollotl saw no more of this; he was now behind the last back and sidling into the sanctuary. The air was thick, the walls black with smoke and blood. He was alone. He listened. Nezahualpilli was asking Montezuma to swear to make the sun to shine, the clouds to give rain, the streams to flow, and the earth to bring forth fruits in abundance. Yollotl found the doorway to the storeroom. He glided through.

It was a place of pots and baskets. He searched among them. Red feathers for asperging blood, supplies of maguey thorns for making blood flow, reeds and cord for

passing through wounds to keep the blood flowing, black ashes, knives, basins, rattle sticks; then he smiled—here were the pellets in the shape of mouse droppings, this was yaqualli. He took and filled two pouches and hid them under his cloak. He helped himself to a knife as well and thrust it in his loincloth.

He made his way back into the sunlight and the throng. Naza-hualpilli was foretelling a long and glorious reign for Montezuma and his words were moving Montezuma to tears.

Though Yollotl stood near the blazing tripod he did not feel the heat. He waited his chance and tossed a handful of pellets into the flames. The breeze blew the smoke toward the guard. Night swallowed the smoke.

Slowly, with a smile, the guard leaned against the wall and slid down, his hand sliding down the shaft of his spear, and sat smiling. Yollotl moved quickly. He drew the spear out of the soft grasp and set it on the ground. He listened.

The voices in the god's quarters had not changed. He smiled. The god seemed to have forgotten the elegant speech and fine manners the priests had taught him. One of the girls was speaking soothingly, another was weeping.

Yollotl dragged the tripod nearer the doorway. He emptied a pouch into the flames and fanned

the smoke into the room. Some smoke blew back into his face but it did not send him into trance. He waited. He reached for the other pouch but the voices were slurring and he held his hand. Now he heard only the wind of fire. He stepped into the room.

His glance passed over the god's four brides of a month and over the remaining seven guards. His gaze swung between two men, though he knew which was the god and which the captain. They had shorn the god's hair in the style of a captain's and Yollotl did not want to make a mistake at this point. He stepped over a girl to the god. The yaqualli had caught him with his mouth sick of banqueting and his eyes empty with the fullness of doom. He stared unseeing at Yollotl.

Yollotl set the god on his feet. He tore off the god's finery and tossed it in an empty heap beside the captain. He tied a plain black cloak about the god and led him into the night, stopping to smear the god's face and his own with black from the tripod to seem black courage—ashes of ground-up scorpions, tarantulas, wasps, centipedes, rattlesnakes, tobacco, and peyote—and themselves two junior priests venturing into the haunted forest to offer pine wood and copal to the mountain gods.

The walk in the night air stirred the god. Yollotl crumbled a pellet and cast the dust into the god's

face. A look of peace came over the god's face. He did not feel the stinging of the branches whipping back as Yollotl led him into the woods.

Behind was shouting, but by now the two priests were deep in the woods.

Here where they hid waiting for dawn the woods touched the shore. They looked out through pine branches and across the mirror of lake at the temple of Tezcatlipoca. The god turned to Yollotl.

"Are you truly the messenger of Tezcatlipoca?"

"Silence. Watch."

The god did not dare turn and speak again. They watched in silence. Then they heard and saw the procession.

It wound along the far shore and came to a stop, all but the captain and the eight guards. The captain, the guards tight about him, marched on to the foot of the pyramid. Here they came to a stop. The guards filled the captain's arms with clay flutes that during the year had known the glorious breath of the god. The captain looked up to where six priests and stone altar and obsidian blade waited for him. Alone, he climbed toward them, stopping on each step to break one of the flutes.

When the captain lay spread-eagled on the stone and the knife hung in the air Yollotl spoke.

"Smell the flowers, listen to the birds, look at the sky. Is life not sweet?"

The god empty of his godhood nodded impatiently, not breathing. The captain would come back to life as a hummingbird giddy among the flowers forever. The god looked on in an empty mingling of fear and envy, joy and guilt. As the priest's knife flashed down Yollotl thrust his own knife into the god's heart.

That had been a fine jest. And it was a fine jest when Nenetl died in childbirth and so became a night monster. "Did you think me one of the Ciuateteo?;" Too, she had said, "You owe me a life," and the life he had given her—a strange dead child the midwife quickly buried—had killed her. A very fine jest.

He had found some fun in the jest of another. Nezahualpilli king of Tezcucó had married Chalchiuhnenetzin, a sister of Montezuma. Nezahualpilli caught her cuckolding him with young men of the court and killed her. Montezuma, nursing this as an insult, had let Tlacauepan, his younger brother and dearest to him of all the persons near to him by blood, go to his death at the head of his troops so that Nezahualpilli would not guess Montezuma meant the battle to go against them and meant the Tlaxcalan foe to wipe out the Tezcucan al-

lies. But if there were other jests on the same scale Yolloatl had not seen their working out. And so on the whole it had been an empty seven years.

He had to live out—function somehow throughout—the emptiness at the heart of time. Even the most miserable of these people found escape. He watched the old ones eat the narrow caps and delicate stalks of the mushroom they called *teonanacatl*; they escaped from this world into the world of visions. They looked at him as though he were fading. "Here, eat this and forget your sorrows. You need not be a slave to the world of the senses." But he was unable to follow them into that other world. He ate this flesh of the god but he saw only an endless darkness. He cursed his body; then he laughed at himself, remembering his Final Jest, and he bowed to his burden. He saw day follow day. And then one day it was time.

Xiuhcozcatl stared at Yolloatl.

"Buy you?; Once you ran away in fear that I would become your master."

"Yes. I ran."

"And now you wish to sell your hand, your foot?"

"Yes."

"And to me?"

"Yes."

"One does not take that way from choice. Have you no land?"

"I have left my digging stick standing in the soil."

"Perhaps it will take root."

"Perhaps."

Xiuhcozcatl smiled understandingly.

"Ah, it is hard to be your own master. And you wish to be free of freedom. Very well."

There were many besides the four elderly witnesses to lend their presence to the ceremony and to watch Yolloatl bear away one load of *quachtli*, the burden of his price, twenty lengths of cloth.

To the surprise of those who thought they knew him, he spent the cloth on drink. In his drunkenness he looked and behaved a buffoon, so that they laughed and did not think what they could have done with the cloth. Once, he staggered into a woman leaving her house with a pot of urine for the dyer. He lay in the spill and shatter for all to see. Woodenly he suffered the shaving of his head in punishment; it seemed only to quicken his rush to doom. Xiuhcozcatl sent a man to follow him about and see that he came to no real harm, but in a month Yolloatl wasted what would have lasted more than a year.

At the end he was down to drinking *uitzoctli*, the newly fermented agave juice that pricked like the thorns of the plant. Then there was no more cloth and he gave himself up to Xiuhcozcatl.

Xiuhcozcatl's thin smile faded

fast. Yollotl had guessed rightly that Chimalpopoca would not have warned his fellow traders, till he had the price for Yollotl in his hands, that the secret of the hollow staffs stood in danger. Xiuhcozcatl listened and sold him to Tlacotl.

Tlacotl had grown plump, he had to keep remembering to deepen his voice, the matchmaker had knotted his cloak with that of a trader's daughter. Matlaxochitl's nose had sharpened. They listened and sold him to another.

In this manner Yollotl passed from the possession of the statutory three owners. The fourth owner was Acamapichtli, who listened, eyes still hard as cacao beans, and sold him to be chief sacrifice at The Bind of the Years.

The trees with their brown bark looked like men in strange rough robes. Priests in the rich robes of Quetzalcoatl, Tlaloc, Huitzilopochtli, and the other great gods, marched past the trees. The procession paced itself to reach the summit of the Hill of the Star just before midnight. Huixachtecatl was a volcanic crater, but its fire was dead.

All fire was dead. Throughout the land they had put out every fire in home and temple. And when they had put out the last fire all the world and all hearts grew chill. Would there ever be fire again? Throughout the land they

watched from the roofs. They had masked the children and they stung them wakeful with nettles, so the children would not fall asleep and turn into rats. They had shut up the women with child in the maize granaries and covered the women's faces with masks of maguey leaves, so the women would not turn into wild animals. Had they done enough? The times were ominous. From the coast in late days had come word of strange white men carrying thunders and lightnings and moving over the waters in strange craft. The way ahead was dark and all earthly fire dead. Only the stars remained. If they too failed, the world would end and the light-fearing monsters swarm out at last.

The procession reached the summit. The priest looked up. The constellation Tianquiztli hung at the zenith. Would it go on?

One of the quacuilli flung yaqualli powder in Yollotl's face. Yollotl smiled; he would not have struggled; he would not struggle. The priest made a sign. The quacuilli seized Yollotl by the arms and legs. Round about him spun the landscape, sky and forest reeled together. He lay spread-eagled on the stone. They held him fast. In the faint light of the stars all was clear as day in his eyes. He smiled to see that the priest had filters of charcoal in his nostrils; the priest did not wish the

yaqualli dust floating in the air to dull his senses, he wished to feel to the full his knife slitting the flesh and his hand wrenching out the heart.

The priest swept the obsidian blade from breastbone to groin, reached in, and felt emptiness. A man bearing the name Heart had none—at least none that someone unaware of prosthetic miniaturization could grasp. Yollotl laughed. The Final Jest had come off.

He had to admire the priest. The priest withdrew his fist, raised its dark shine to the stars, then tossed the nothing it held into the eagle-cup. The priest wiped his hands on his robe and took up the fire sticks. He placed the flat board of soft wood in Yollotl's chest, then spun the tle-quauitl.

A great hush. The flame spurted. A great shout. Tianquitzli was continuing on its way, the stars had not failed, the new fire had caught.

One of the quacuilli fed this

flame, then carried fire from it and touched off the pyre nearby. They threw Yollotl on the pyre. The flames rose around him. With a smile he reached inside his chest, broke a connection, and ceased to be.

Men lit torches at the pyre and ran into the night to spread the new fire throughout the land. Tomorrow, the sun would shine. The sun, in its coming out and its going in, its coming out and its going in, was a heart, beating, beating. It was life. From this life, Man took his life. Man had to give life back, feed the flames of life. There was a time when the heart had stopped and all things died. Would it stop again?; What would rekindle the universe when the stars were cinders, when the constellation Mamalhuaztli, the Fire Sticks, itself flickered out? Peace. Was it not enough for now that men were running through the night with burning torches and there would be new fire in every home and temple?



We announce with pleasure that Mr. R. A. Lafferty, who lives in Oklahoma and has been published in other Science Fiction magazines, has been co-opted to the club. His first story for us is rather unwilling to be placed in a category. However that may be, we are not altogether unfamiliar with one of the problems involved here, for we, too, have turned from our office door the obsessed and the fanatical—but, so far (have you a piece of wood on hand? knock it for us, please) without gross misfortune following. Others have not been so lucky. As follows:

THE MAN WITH THE SPECKLED EYES

by R. A. Lafferty

IN THOSE DAYS THERE HAD BEEN a clique of six men who controlled it all. Any new thing went to one of them—or it went nowhere. Discovery and invention cannot be allowed to break out all over the lot.

These six men did not work in particular harmony. They were called the clique because they were set apart from others by their influence; and because of their names, which were: Claridge, Loric, Immermann, Quinn, Umholtz, and Easter.

Now the six men were reduced to two. On successive days, Claridge, Loric, Immermann, and Quinn had disappeared—and they had done it pretty thoroughly. In each case, somebody had to

know something about their disappearance; and in each case, that somebody refused to tell.

Claridge's man, Gueranger, had been with Claridge at the time of the disappearance or shortly before. He admitted that much. But nothing intelligent could be got from him.

"The truth of it is that I don't know the truth of it," Gueranger insisted. "Yes, I was there, but I don't know what happened."

"Don't you know what you saw?" asked the investigator.

"No, I don't. That's the whole point of the matter: I will not accept, and will not tell, what I saw. Certainly I know that I'm held on suspicion of murder. But where is

the body? You find it—anywhere—in any shape—and I'll sure sleep better."

In the second case, Ringer and Mayhall both seemed to know something of the disappearance of their employer, Loric. The three of them had walked in the plaza at evening. Only two of them had come back—and they much shaken.

"I know what I seemed to see," Ringer ventured, "and I will not tell it. I'm not stubborn and I'm not sensitive to laughter, but I've sealed the whole thing off in a corner of my mind and I won't disturb it. I've hopes of hanging onto some pieces of my reason, and to open this again would set me back."

"Loric?" Mayhall grunted. "I guess the damned fool swallowed himself. He's sure gone completely. Yes, I was with him, and I won't say any nearer than that what happened."

"I simply will not explain," said Immermann's advisor, Herbert. "He is gone, and I do not believe he will be back. No. If it was a hoax, I wasn't in on it, and I don't understand it. Do I believe that he wished to disappear for a private reason? Did he—wherever he has gone—go willingly? No, gentlemen, *he did not go willingly!* I never saw a man so reluctant to go."

"I will *not* say what happened to

Mr. Quinn," said Pacheco, Quinn's assistant. "Of course I know that he was an important man, the most important in the world to me. You say that you will have answers out of me one way or the other? Then you'll have nothing but babbling out of a crazy man.

"Why yes, I suppose that you can hang me for murder. I don't know how those things are worked. It seems extreme, however. I thought there was a Latin phrase involved, about a body being required. Lay off now, fellows. I'm cracking up, I tell you."

The investigators didn't lay off, but so far they had gotten nothing out of any of the witnesses. The four disappearances had to be as one, and the witnesses were certainly of a pattern.

ARE EXTRATERRESTRIALS KIDNAPPING OUR TOP TALENT? the news banners read.

"Oh hell," said Umholtz in his cluttered office. "Hell," said Easter in his clean one. They both knew that they were not men of any particular talent, and that the four men who had disappeared were not. They were shufflers and dealers in talent, that is all. In popular idea, they were responsible for the inventions they marketed. But off-Earth people, bent on such showy kidnappings, would have picked off seminal geniuses and not talent brokers.

Four gone, two to go. Would the next one be Umholtz or Easter?

Umholtz felt that it would be himself. He and his assistant Planter were worrying about it together when Shartel the aide came in to them.

"There's *one* to see you, Mr. Umholtz," said Shartel with diffidence, for he was only half the bulk of his employer.

"An inventor?" Umholtz always sneered with his eyebrows when he spoke that word, although inventors were the only stock he dealt in.

"Who else comes to see us, Mr. Umholtz? This one may be worth investigating, though probably not for any invention he has."

"A crackie? What does he have?"

"A crackie from end to end, and he won't say what he has."

"We're not scanning clients these days, Shartel. I explain that to you every ten minutes. We're spending all our time worrying about the disappearances. Creative worry, Planter here calls it, and I don't appreciate his humor. I haven't time for a crackie today."

"He got to see Claridge, Loric, Immermann, and Quinn, all a couple of hours before the disappearances."

"All inventors make the same rounds. There's *nobody* else they can go to. And weren't there a couple of others who saw them all?"

"The others have all been checked out clean. This is the last

one. The authorities have been looking for him and have left word to call if he showed. I'll ring them as soon as he's in here. There's a slim chance that he knows something, but he sure doesn't look it."

"Send him in, Shartel. Has he a name?"

"Haycock. And he looks as though he had slept in one."

Haycock didn't really have hay in his hair—that was only the color and lay of it. He had blue eyes with happy dangerous gold specks in them, and a friendly and humorous sneer. He looked rather an impudent comedian, but inventors come in all sizes. He had something of the back-country hayseed in him. But also something of the panther.

"I have here what may turn out to be a most useful device," Haycock began. "Good. You have sent the underlings away. I never talk in their presence. They're inclined to laugh at me. I am offering you the opportunity to get in on the top floor with my device, Mr. Umholtz."

"Haycock, you have the aspect of a man entranced by one of the four basic fallacies. If so, you are wasting my time. But I want to question you on a side issue. Is it true that you visited all four of them—Claridge, Loric, Immermann, and Quinn—on the days of their disappearances?"

"Sounds like their names. Four blind bats! None of them could see my invention at first. All of them laughed at it. Forget those fools, Umholtz. You can grow new fools, but what I have here is unique. It is the impossible invention."

"By the impossible inventor, from the looks of you. I hold up four fingers, and one is it. Tell it in one word, Haycock?"

"Anti-grav."

"Fourth finger. It's not even the season for anti-grav, Haycock. These things go in cycles. We get most of the anti-gravs in early winter. All right, I give you four seconds to demonstrate. Raise that table off the floor with your device."

"It's barely possible that I could raise it, Umholtz, but not in four seconds. It would take several hours; instant demonstration is out. It's a pretty erratic piece of machinery, though I've had good luck on my last several attempts. It isn't really very impressive, and a lot of what I tell you you'll have to take on faith."

"Haven't any, Haycock. Even a charlatan can put on a good show. Why the two pieces? One looks like a fishing tackle box, and the other like a sheaf of paper."

"The papers are the mathematics of it, Umholtz. Look at the equations carefully and you'll be convinced without a demonstration."

"All right. I pride myself with the speed I bring to spotting these basic errors, Haycock. They seem very commonplace equations, and then they break off just when it's plain that you're getting nowhere. What happened to the bottom of these sheets?"

"Oh, my little boy ate that part of them. Just go ahead and you'll pick up the continuity again. Ah, you're at the end of it and you laugh! Yes, is it not funny how simple every great truth is?"

"I've seen them all, Haycock, and this is one of the most transparent. The only thing wrong with it is that it won't work and it's as full of holes as a seine."

"But it does work part of the time, Umholtz, and we'll fill up the holes till it's practical. Well, is it a deal? It'll take a couple of years; but if you'll start plenty of money rolling, I'll get on with the project in a big way. Why do you roll your eyes like that, Umholtz? Is there a history of apoplexy in your family?"

"I will be all right in a moment, Haycock. I am afflicted by inventors, but I recover quickly. Let us set the gadget aside for the moment. Do you know where the four now celebrated men have gone?"

"Papers said it was as if they had disappeared from the Earth. I imagine they sent a reporter or someone to check on it."

"Take Claridge, for instance,"

said Umholtz, "Did he seem disturbed when you last saw him?"

"I think he was the little one. He was kind of boggle-eyed, just like you were a minute ago. Kind of mad at me for wasting his time. Well pig's pants! I wasted my time too! Blind as a bat, that man. Don't think he was convinced that my thing would work till maybe right at the end. Now let's get back to my instrument. It will do a variety of jobs. Even you can see where it would be useful."

"It would be, if it worked, and it won't. Your piece of mathematics is childish, Haycock."

"Might be. I don't express myself well in that medium. But my machine does work. It creates negative gravity. That is, it works quite a bit of the time."

Umholtz laughed. He shouldn't have, but he didn't know. And he did have an ugly sort of laugh.

"You laugh at me!" Haycock howled out. Gold fire popped from his eyes and he was very angry. The hayseed began to look like the panther. He touched his machine, and it responded with a sympathetic ping to the anger of its master.

Umholtz was having fun with the new blazing inventor.

"What do you do, Haycock and bull, turn that machine on and point it at something?" he guffawed. Umholtz enjoyed deriding a fellow.

"You hopeless hulk! I turned it on a minute ago when you laughed at me. It's working on you now. You'll be convinced in the end," Haycock threatened.

"Do you not know, Haycock, that anti-grav is the standing joke in our profession? But they still come in with it, and they all have that same look in their eyes."

"Umholtz, you lie! Nobody else ever had this look in his eye!"

That was true. The gold specks in the blue eyes glinted in a mad way. The eyes did not focus properly. It seemed to Umholtz that Haycock did not look at him, but through him and beyond. The man might well be a maniac—the sort of maniac who could somehow be involved in the four disappearances. Never mind, they were coming for him. They'd be here any minute.

"Anti-grav is a violation of the laws of mass and energy," Umholtz needed.

"To change the signature of a mass from plus to minus is not a violation of any law I recognize," said Haycock evenly. "It is no good for you to justify now, Umholtz, or to find excuses. It is no use to plead for your life. Are you deaf as well as blind and stupid? I told you plainly that the demonstration had already begun. You were all a stubborn lot, and I convinced all four of them in the end, and I'll convince you. I tell you, Umholtz, that entrenched stupid-

ity makes me mad, and when I get mad I sure do get mean. I've cancelled you out, you open idiot! Umholtz, I'll send you away screaming!"

"Rather I'll send you away in that act," Umholtz purred, for the men in black were now into the room, and they laid legal hands on Haycock.

"Take him away," Umholtz grunted out. "He's fishier than Edward's *Ichthyology*."

Haycock didn't go away screaming, but he went roaring and fighting. That man was very mean, and those gold specks in his eyes were really sulphur.

Say, they couldn't get a thing out of that fellow. Haycock was an odd one, but that was all. They went over him from the beginning. He was known in his own neighborhood for his unsuccessful inventions and for his towering tempers, but he hadn't any bodies lying around, and he hadn't been anywhere near any of the four men at the time of their disappearances.

He was a crackie from end to end, but he hadn't a handle they could get hold of.

"I am not ghoulish," Umholtz said to his men Planter and Shar-tel, but the disappearance of four of my five competitors has opened up some pretty obvious opportunities for me. Oh, other men will be

designated to replace them, but it'll be a long time before they get that sharp."

"What did the crackie have this afternoon, Mr. Umholtz?" Planter asked him.

"It isn't worth mentioning. One of the oldest and silliest."

The three of them were walking in the park in the evening.

"I suddenly felt odd," said Umholtz and he placed one hand on his head and the other on his paunch. "Something I ate for supper didn't agree with me."

"It's the worry," said Planter. "The disappearances have upset you. With the thought that you might be next on the list, there has been a great weight on you."

"I really feel as though a great weight had been lifted off me," said Umholtz, "but I don't like the feeling. I'm light-headed."

"The walk will do you good, Mr. Umholtz," Planter told him. "You look well to me. I've never seen you move with so light a step."

"No, no, I'm sick," Umholtz moaned, and he began to look up in the air as though fearful of an attack from that sector. "My feet don't track right. There's a lightness in me. My stomach is turning inside out. Lord but it would be a long way to fall! *I've got to get hold of that tree!*"

Umholtz flopped his way forward, his feet slipping on the grass as though he had lost trac-

tion. He got hold of the tree—a small elm.

"I'm starting to go!" he howled in real terror.

He put a bear-hug around the tree, locking onto it with both arms and legs. "Great dancing dog-fish, don't let me fall," he sobbed. "How did I ever get so high up?"

"Umholtz, you are six inches from the ground," Planter told him. "The man's gone mad, Shar-tel. Let's pry his legs loose first. When we get his feet on the ground he may get over his mania about falling."

"Fools! Fools! You'll let me fall all the way down," Umholtz screamed, but he was looking upward, and his face was flushed as though all the blood had run to his head.

"He was right," Umholtz sniffed wetly in an interlude of his screaming and sobbing. "I'm finally convinced."

"There's one leg loose, Shar-tel," said Planter as he worked on Umholtz, "but it seems pretty difficult to hold it to the ground for some reason. Now the other leg, and we'll set him down on his feet. Whoops! What's wrong? You're going up with him, Shar-tel!"

Shar-tel did go up with him at first, for Umholtz was much the heavier man. But Shar-tel broke away and fell a dozen feet down to the grass.

Umholtz grabbed a precarious lodging in the tree top, but he was shearing off fronds and branches and going fast.

"For God's sake, get me up from here!" Umholtz screamed, hanging upward from the topmost branch. He was like a tethered balloon tugging at its mooring.

"Throw a rope down to me! Do something!" he sobbed upside-downly from the tree top. "I'll fall all the way, and I can't even see bottom."

The topmost branch broke, and Umholtz fell off the world.

He fell upward into the evening sky, his scream dropping in pitch as he accelerated. He fell end over end, diminishing till he was only a dot in the sky. Then he was gone.

"What will we tell people—what—what can we say—how—ever explain—how explain what we seen seem—" Shar-tel rattled, the bones in his body shaking like poker dice in a toss box.

"You tell your lie and I'll tell mine," Planter grumbled. "I'm crazy, but I'm not crazy enough to have seen that."

Of the clique, only Easter was left. He was the most even-minded of the bunch and the least inclined to worry. It had been a peculiar series of events that had devoured his competitors, but he

hadn't been able to base any theory on the series. If it continued, he would be next.

"I may try a little worrying myself," he mused. "A man of my sort shouldn't neglect any field of cogitation. I'll give it a try. It should come easy for me today."

So Easter worried, but he didn't do it well. It isn't very easy if you haven't the life-time habit of it.

Then a man came in to him unannounced.

This was a man with hay-colored hair, with blue eyes with happy dangerous gold specks in them, a man with a friendly and humorous sneer. He had something of the hayseed in him. But also something of the panther.

"I have here what may turn out to be a most useful device," Haycock began.



COMING NEXT MONTH . . .

End of the Line—a new novelet **by CHAD OLIVER**

A story both thoughtful and actionful. Man had seemed omnipotent. He had reached out for the stars—And, incredibly, he had faltered. Something had gone wrong. Something had gone very wrong indeed . . .

Four Ghosts In Hamlet—a new novelet **by FRITZ LEIBER**

A tale of the supernatural, both chilling and charming, narrated by an actor in a Shakespearean company. Sometimes I think it's the greatest ghost story in the world—not from my way of telling it—but from the wonder blazing at its core.

PLANT GALLS

by Theodore L. Thomas

A PLANT GALL IS AN ABNORMAL growth of plant tissue, a kind of vegetable cancer. It usually shows up as a lump on the trunk, leaf, limb, or root. A plant gall is caused by an agent such as a virus or an insect. There are thousands of insect species in the United States alone that cause galls on a wide variety of trees and shrubs and small plants. Take the species of wasp known as the sawfly.

In order to propagate itself, the sawfly lays its eggs in the tender leaves of the willow tree. The sawfly cuts a small hole near the midrib of the leaf, and injects a fluid into the hole. Then the sawfly lays its egg in the hole, placing the egg to lie between the upper and lower epidermis of the leaf.

Research has shown that the fluid first injected into the hole will by itself cause a gall to form at the site. The gall does not hurt the leaf. The gall will grow for about 8 days and stop. If an egg has been deposited, it will hatch in about 8 days. The larva then releases a fluid that keeps the gall growing until it reaches its normal, marble size. The gall continues to produce wild tissue, but

the larva feeds on it. So it is these fluids that cause the galls. The fluids from one kind of insect will stimulate a gall in only one species of plant tissue.

Analysis has shown that the fluid is complex. It contains protein, carbohydrates, nucleic acid, and some other substances. Some day it may be completely elucidated, and we will be on our way.

There are devastating possibilities in this fluid. Sprayed from the air, it could turn a countryside into one large plant gall. Modified somewhat, it could turn men into walking cancers.

But more important, here may be an answer to the food problem. Treat a kernel of corn with the proper fluid, and watch the corn cells grow. Do the same thing to a small piece of beef, or to whatever kind of food is needed. The resulting duplicating cells will be corn cells or beef cells, and will be edible, and all we'd need would be enough of the fluid to supply the needed stimulation. But we might then have a new problem on our hands. We might then have to worry about being choked off the planet by a food supply gone wild.

FROM TWO UNIVERSES . . .

The Univac, the Unicorn—
 I love them both, but never find
 A story where this noble pair
 Have been in any way combined.

I'm sure that if a Univac
 Were made in faery lands forlorn
 It would rehearse in deathless verse
 The glories of the Unicorn;

And does perhaps the Unicorn
 Behind some scientific back
 Sneak up to see the magic he
 Senses within a Univac?

—DORIS PITKIN BUCK

**\$200.00 READER CONTEST**

Doris Buck's poem above (*read it!*) wistfully wonders why a story involving both a Univac *and* a Unicorn has never come to her attention (or ours, for that matter). We now call upon the boundless imagination of our readers to fill this staggering gap in SF—Fantasy writing. For the best short-story (by a non-professional² writer) containing a Univac *and* a Unicorn we will award \$100.00. If in the opinion of the editors of F&SF the story is deserving of publication, we will publish and make an additional payment.

RULES

1. All entries must be original stories and must involve in some way both a Univac and a Unicorn. Stories must be less than 1,000 words. 2. Only entries by non-professional writers (no more than two stories published in any professional magazine) will be considered. 3. All stories should be typewritten. None will be returned unless accompanied by a stamped, self-addressed envelope. 4. Judges will be the editorial staff of F&SF. The decision of the judges will be final. 5. Only those entries postmarked before December 15, 1964 will be considered. Address: Contest Editor, Fantasy & Science Fiction, 347 East 53 St., New York, N. Y. 10022.

PRIZES

1ST PRIZE—\$100.00 CASH. (PLUS POSSIBLE PUBLICATION).

2ND PRIZE—LIFETIME SUBSCRIPTION TO F&SF (CURRENT COST \$60.00).

3RD, 4TH AND 5TH PRIZES—FIVE YEAR SUBSCRIPTIONS TO F&SF.

The story below should be read on an empty stomach and a full heart. It asks the unsettling question; which is the greater horror, the distress of the body—or of the mind?

ON THE ORPHANS' COLONY

by Kit Reed

EACH NIGHT ON THE GODFOR-saken lump that was the orphans' colony, something would come and cry outside his window. The purple winds that swept across the place threatened storms and cataclysms and the grey dust betrayed them every day, spilling ten or twelve boys into oblivion in the mines. There was menace in the flat blue sky and menace in the metallic air they breathed and so most of the orphans were quick and wary, and like their custodians they lashed out sharply at anything they did not immediately recognize.

But something waited until the others were asleep and then cried outside Nathan's window, keening so gently that he was tempted to begin working on the bars and protective devices, anxious in his swelling loneliness to open the window or rip a hole in the wall and let the creature in.

He used to press his face against the thick protective glass, trying to catch some glimpse of the thing,

listening all the night through without ever questioning how the sound reached him through the layers of concrete and iron, tensile steel and glass. In time he imagined he could pick it out—an indistinct shape hovering on the far side of the compound—and in his loneliness he imagined the shape as maternal, the sounds it sent out as soothing, comforting him.

For he had had a mother of his own at first, and had spent every day since her death clamped in loneliness, pressing himself against first this foster mother and then that in hopes of bringing back some of the warmth, chilled, finally, because there seemed to be nothing to do for it. Now, at the orphans' colony, he thought of her as he lined up for his washdown and his breakfast, and he carried her memory with him to the mines, cradling it in the dark as he would a cherished photograph.

His first night on the orphans colony, Nathan was found crying.

"We can't have this," said Curtin, his proctor, who came unerringly to him, threading his way along the double row of beds.

"Vm." In the dark, Nathan groped for Curtin's hand, surging on the crest of a stifled wail.

"Think of the others," Curtin said, shushing him.

Nathan sniffed. "I— I can't."

"Then tell me what's the matter."

"N-nobody."

"Nobody what?"

"*Nobody*," Nathan said, with a desperate sob.

And somehow, Curtin understood. "You're lonely? With two thousand other boys?"

"B-boys." They rose up around him, all cold, wild-haired and inscrutable and because Curtin was not like them, Nathan looked at him in growing faith. "If you could just help me."

"That's what I'm here for," Curtin said.

And Nathan let himself think that it was so. Gathering himself, he said, "Get me out of here?"

But Curtin only cleared his throat gruffly and said, "Can't let the others see you crying, can we?" and Nathan saw that for all his good will, Curtin was as helpless as he.

"I want to go home."

Curtin's voice was rich with fatigue. "Son, you don't have any more home." He spoke unconvincingly. "This is your home."

"I want my mother."

"You don't have any more mother."

Nathan bowed his head because it was true.

When he tried and couldn't stop crying Curtin had him take his bedroll into a private room, because it would not do to let the others see one of their number cry. If they were to be self-sustaining in a year or two—if Curtin and his fellows were ever to be released from their duties and allowed to go home, the level of control had to be maintained.

And so Nathan slept alone, without even the comforting sound of other boys drawing breath in the same room, and each day one or another of the boys, suspicious because he was set apart, would badger him. And each night he cried.

Until the creature outside came and began keening, crying to him. He took a certain wild comfort in the sound, pressing his body against the window as if this would bring him closer to the creature which he could almost see, warm and comforting in the courtyard, calling out to him. At first the sound itself was enough because the creature sang to him of warm arms and cozy room, of a childhood perhaps better than his own, of all the things he missed vaguely but could not name. He tried to tell Curtin about it one night, going to him not so much to give him information as to hear the sound of his own voice in dialogue;

except for demanding a response from him at roll call, nobody had spoken to him in days.

"I heard something singing."

"You couldn't have." Curtin was repairing a boy's foot locker. "All the buildings are sealed."

"It was singing."

"You think you heard something." Curtin turned to him, suddenly alert. "Listen, son—if you ever do hear something, or see something—you let me know. We'll have to report it."

"What for?"

"Detection. Destruction." Curtin's brows meshed. "We've just scratched the surface of this place. We're clinging by our fingernails."

"Destruction." It comforted Nathan to be standing near Curtin, to have him talking to him, and in his pleasure at being there, almost having a conversation, he went on, in an agony of confidence. "I have the feeling it—I don't know. It's about love somehow. Sometimes I get so lonesome I . . ."

"Lonesome." Curtin, busy with the foot locker, was not listening. When he looked up he did not even see Nathan; his eyes were full of home. "What was that?"

"Never mind." Hurt because he had said so much and received so little, Nathan withdrew.

"Be sure to report," Curtin said absently. "We have to keep our eyes open all the time." He was murmuring now, as if to himself. "This place isn't exactly paradise."

True enough. There were perils in the air—gasses that could take a whole platoon of boys in an instant, stinging creatures in the sands, poisonous mites in the vegetation, slides and pitfalls in the mines. Two boys picked up a stone near the smelter and brought it back to the dormitory with them, and within hours twenty boys were dead. A strange dust was discovered near a faulty air lock and the proctor who swept it outside had to be taken back to earth, where he would spend the rest of his years in a government hospital.

And now there was a creature outside Nathan's window, singing of love, and Nathan knew in his heart that it was begging to be near him, that he had only to go down to the air lock to find it waiting for him, and it would only take a minute or two to open the double doors and let it in.

Because there was nothing better for him, anywhere, he went down one night; it had known he was coming and was just outside, waiting for him.

He was repulsed by it at first. It humped into the air lock, all rheumy eyes and loose, amorphous, furry skin. But as soon as he closed the outside door behind it, it began singing, without sound, and if he closed his eyes a pervasive warmth lapped at his consciousness, a warmth he had not known even in his mother's arms.

It sang without sound but still

he cautioned it, bending low and putting his finger to his lips. With the creature following, huge and silent, he crept through the halls and up the stairs, wondering that of all the boys—most of them bigger, stronger, smarter—it had singled him out and sung to him, and now it was inside with him, following him up to his room.

It came along lovingly, flumping along behind him on ripples of moving skin and as it followed it hummed to him, so that he was actually surprised, in the light of his room, to see how hideous it was, and he did not want to admit to himself that he was repelled by its smell now that they were together in this closed room. He looked at its circular ring of teeth, its dripping folds of fur and would have backed from the room into the safety of the dormitory if it had not moved forward just then, enfolding him in its loose skin, if it had not cradled him, already beginning to sing.

At first Nathan had to fight back a quick, stifling fear but as he closed his eyes he forgot everything but the warmth, the song, which lapped away at his accumulated loneliness, and as it sang he knew companionship, and love, and finally, joy, and was almost overwhelmed by the fullness of it after the drought which had been his life.

In time, he would be able to look into its rheumy, red-pocked eyes without recoiling, and would touch the matted fur fondly, eyes filmed

over with love. As it was it enfolded him the night through, singing to him, and by dawn he loved it almost more than life. It left him just before it got light, oozing into the wardrobe, and by the time Curtin heard Nathan, crying out like a thing bereft, every trace of it was gone from the room.

"Come on, come on," Curtin said. "What's the matter?"

But Nathan, filled with fragments of remembered song, with an overpowering sense of loss because the song had stopped, sobbed in grief.

"What's the *matter?*" Curtin said again.

And because it was important that he keep his love a secret, Nathan pulled himself together, "J—just a bad dream," he said, and went out to brush his teeth.

He spent every day after that in emptiness; he himself was a small void, waiting to be filled by the song which began at night, as soon as the lights were down and the others were asleep. It no longer mattered that the rock he lived on was cold and remote, or that no one spoke to him except to call his name for the smelter detail, or first thing in the morning, in the mines. His life with the singing thing was so full, so consuming that he was not even aware of the disturbance in the compound, the unrest around him until it reached a point of hysteria, until Curtin came, one morning, to his room.

"You said you heard something funny," Curtin said, without preliminaries.

Nathan blinked up at him, hugging his knees. "That was a long time ago." Then, because Curtin looked so distraught he said, "Is something the matter?"

Curtin ran his fingers through his hair. "You know. The disappearances. Three this month."

"Disappearances?"

"You haven't? Of course not." Curtin shook his head, reminding himself. "You never talk to the other boys. Three boys have just—gone . . ."

Dreaming, Nathan said, "Maybe they just ran away."

"No." Sadly, indulgently, Curtin tousled Nathan's hair. "Look, son, have you seen anything? Or heard anything?"

In a lingering fondness, wanting to please, Nathan said, "I wish I had, but . . ." He shrugged.

"Look, son, if you ever *do* hear anything . . ."

Nathan waited.

"Or see anything . . . If you see anything at all, please let me know."

Because he really liked Curtin, and wanted to please him, Nathan said, "I will."

That night he told the creature about it, and the creature wove it into a song.

He knew, without having to reflect on it, that these were the happiest days of his life and if the number of boys in the dormitory

continued to diminish, if the air about him was acrid with fear, he did not need to think on it because each night there was the creature in all its warmth and love; each night there was its song.

And then one morning Curtin himself was gone, and a strange proctor, tall, gruff and frightened, came to Nathan's room accompanied by a guard with a whip and a stick. They turned out his possessions, emptying his little foot locker and throwing the door to the wardrobe wide. In the second before the wardrobe door opened, Nathan shrank, thinking that his love would be discovered. Then it opened on nothing; there was not a hair, not a trace of drool, and Nathan laughed in relief. Covering the laugh, he said, "What are you looking for?"

"Don't know." The proctor's mouth was taut. "But we've got to find it soon. Forty gone, and not even a trace."

"Forty?" The figure had no reality for Nathan.

"Forty boys. And now a proctor."

Nathan was touched by a flicker of concern. "Curtin?"

"Curtin."

"Poor Curtin."

"Look, kid. Everybody's got to help if we're going to stop this thing." The proctor paused heavily. "Do you understand?"

Nathan nodded.

"If you've seen anything strange, anything out of the way . . ."

"I'm sorry." Nathan was already thinking of the night; he could hear the song inside his head. "I haven't seen a thing."

That night the creature sang of joy on joy unending and Nathan snuggled in its folds, wrapped in bliss.

It was gone when he woke the next morning and, remembering the search the day before, Nathan thought it was just as well. He hoped it had hidden well even though every fiber in him already cried out for it, and he knew it would be a long wait until night.

There was no line for the bathroom and the dormitory itself seemed strangely silent, with beds all made, rank on rank, but no boys beside them zipping into coveralls or struggling into boots. The light itself had a strange, unmarked quality; it flowed in the sealed windows uninterrupted and unbroken; it was as if there was no one else in the building and the building itself had been deserted for years.

Once he had washed himself Nathan went to the dining hall without dressing, a small boy still dressed in the white undershirt and the drawers he'd slept in, suddenly

acutely lonely in the silence of the hall. He went between the rows of beds, troubled now by the stillness in the air, the absence of sound.

At the double doors to the mess hall he hesitated, bombarded by sunlight, taking in the last, lingering silence of the room. Then he pushed the doors wide, already aware of the sound.

He took his time, looking at the masses of polished tables, taking in the quiet, the order, the progress of the sunlight and finally the disturbance in the far corner of the room, knowing even before he went among the tables and found it that his creature was busy there.

It finished with the boy in its grip and looked up at Nathan with eyes rheumy and red-pocked, unfathomable, and Nathan saw without surprise, without even a sense of betrayal that he meant no more to it than any of the others even after all the nights, all the times it had sung to him and he saw further that it was waiting for him.

He hesitated only for a second.

He went to it then in full knowledge, going to it in his love and loneliness. It embraced him, flexing the circle of teeth.



Joanna Russ, in sending this short surprise to us wrote: "It is untitled because I have not been able to think up a title for it, although I call it something quite unusable in my files . . . If you want it, you are at liberty to call it anything you please." We have, accordingly, decided to give it the deceptive title of . . .

WILDERNESS YEAR

by Joanna Russ

I PASSED MY CHILDHOOD IN THE great underground city at A——— and when I reached the age of citizenship and ascended to the Entrance Chamber to start out on my Wilderness Experience Year, G———, the great G——— himself was waiting for me.

"My boy," (he began with that directness for which he's so famous) "Good luck to you. I hope you'll forgive a few words on the occasion of this, your Wilderness Year. You've no doubt been taught that it was the recent catastrophe that drove the human race underground, but let me tell you it was something much simpler and much worse than that. It was Lack of Moral Fiber. That's all. Not only is our natural home above the ground (once we went even higher than that!) but if I had my way, we'd be there right

now, catastrophe or no catastrophe."

"Not everyone" (he added thoughtfully) "sees it my way, of course."

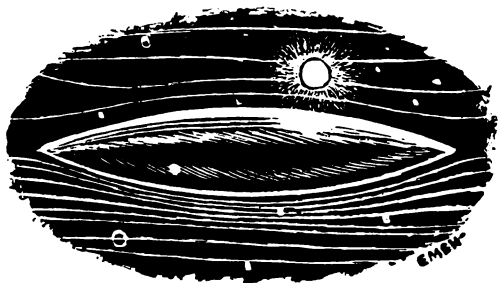
"Still" (he went on brightly) "I've managed to convince them of one thing at least, that every boy or girl must spend at least *some time* aboveground, must abandon the luxury of knowing where his next meal is coming from for at least *a while*—or what would happen to our national character?"

"Of course," (he went on serenely) "I'm not against technological progress, far from it—we've made some remarkable strides that way, particularly in the weapons area—and as you go out on your Wilderness Experience Year, you'll go of course with the best of equipment: energy-source, thermal-environment control, personal projectile, and so

forth. We do, after all, want the best for our young people. *But don't get soft!*"

"And do try to come back," he added.

And so, tucking my firestick and my flint spear into the folds of my bearskin, I walked out of the cave to where the glaciers glittered in the winter sunlight.



SOMO THESE DAYS

The idea was to assume alone-ness even in the densest crowds. To this end, one wore video specs tuned to *S*P*A*C*E* (the 24-hour show with rating one) and deadened the second sense with rhinestone ear stops. Local anaesthetics (how nice!) took the last worry out of being close and nose plugs helped sweeten oblivion.

It's true some somos were beaten by gangs of junior citizens but since they felt nothing this pastime petered out in favor of tube jamming and speaking in tongues and the neo-hermits were left to tilt, unknowingly, with lamp post and gutter.

—WALTER H. KERR



A GALAXY AT A TIME

by Isaac Asimov

FOUR OR FIVE YEARS AGO, THERE WAS A SMALL FIRE AT A SCHOOL two blocks from my house. It wasn't much of a fire, really, producing smoke and damaging some rooms in the basement, but nothing more. What's more, it was outside school hours so that no lives were in danger.

Nevertheless, as soon as the first piece of fire apparatus was on the scene, the audience had begun to gather. Every idiot in town and half the idiots from the various contiguous towns came racing down to see the fire. They came by auto and by ox-cart, on bicycle and on foot. They came with girl-friends on their arms, with aged parents on their shoulders and with infants at the breast.

They parked all the streets solid for miles around and after the first fire engine had come to the scene, nothing more could have been added to it except by helicopter.

Apparently, this happens every time. At every disaster, big or small, the two-legged ghouls gather and line up shoulder to shoulder and chest to back. They do this, it seems, for two purposes: a) to stare goggle-eyed and slack-jawed at destruction and misery and b) to prevent the approach of the proper authorities who are attempting to safeguard life and property.

Naturally, I wasn't one of those who rushed to see the fire and I felt very self-righteously noble about it. However (since we are all friends) I will confess that this is not necessarily because I am free of the destructive instinct. It's just that a messy little fire in a basement isn't *my* idea of destruction; or a good, roaring blaze at the munitions dump, either.

If a star were to blow up, *then* we might have something.

Come to think of it, my instinct for destruction must be well developed, after all, or I wouldn't find myself so fascinated by the subject of novae. I have discussed them in several articles, including *THE SIGHT OF HOME* (February 1960) and *HOT STUFF* (July 1962).

Yet in discussing them, I have, it turns out, been a piker. Here I've been thinking for years that a supernova was the grandest spectacle the universe had to offer (provided you were standing several dozen light years away) but, thanks to certain 1963-type findings, it turns out that a supernova taken by itself is not much more than a two-inch firecracker.

This realization arose out of radio astronomy. Since World War II, astronomers have been picking up microwave radiation (very short radio waves) from various parts of the sky, and have found that some of it comes from our own neighborhood. The Sun itself is a radio-source and so are Jupiter and Venus.

The radio sources of the Solar system, however, are virtually insignificant. We would never spot them if we weren't right here with them. To pick up radio waves across the vastness of stellar distances, we need something better. For instance, one radio source from beyond the Solar system is the Crab Nebula. Even after its radio waves have been diluted by spreading out for five thousand light years before reaching us, we can still pick up what remains and impinges upon our instruments. But then the Crab Nebula represents the remains of a supernova that blew itself to kingdom come—the first light of the explosion reaching the Earth about 900 years ago.

But a great number of radio sources lie outside our Galaxy altogether and are millions and even billions of light years distant. *Still* their radio-wave emanations can be detected and so they must represent energy sources that shrink mere supernovas to virtually nothing.

For instance, one particularly strong source turned out, on investigation, to arise from a galaxy 200,000,000 light years away. Once the large telescopes zeroed in on that galaxy, it turned out to be distorted in shape. After closer study, it became quite clear that it was not a galaxy at all, but *two* galaxies in the process of collision.

When two galaxies collide like that, there is little likelihood of actual collisions between stars (which are too small and too widely-spaced). However, if the galaxies possess clouds of dust (and many galaxies, including our own, do) these clouds will collide and the turbulence of the collision will set up radio-wave emission, as does the turbulence (in order of decreasing intensity) of the gases of the Crab Nebula, of our Sun, and of the atmospheres of Jupiter and of Venus.

But as more and more radio sources were detected and pinpointed, the number found among the far distant galaxies seemed impossibly high. There might be occasional collisions among galaxies but it seemed most unlikely that there could be enough collisions to account for all those radio sources.

Was there any other possible explanation? What was needed was some cataclysm as vast and intense as that represented by a pair of colliding galaxies, but a cataclysm that involved a single galaxy. Once freed from the necessity for collisions we can explain any number of radio sources.

But what can a single galaxy do alone, without the help of a sister galaxy?

Well, it can explode.

But how? A galaxy isn't really a single object. It is simply a loose aggregate of up to a couple of hundred billion stars. These stars can explode individually but how can we have an explosion of a whole galaxy at a time?

To answer that, let's begin by understanding that a galaxy isn't really as loose an aggregation as we might tend to think. A galaxy like our own may stretch out 100,000 light-years in extreme diameter, but most of that consists of nothing more than a thin powdering of stars; thin enough to be ignored. We happen to live in the thinly-settled outskirts of our own Galaxy so we accept that as the norm, but it isn't.

The nub of a galaxy is its nucleus, a dense packet of stars roughly spherical in shape and with a diameter of, say, 10,000 light years. Its volume is then 525,000,000,000 cubic light years and if it contains 100,000,000,000 stars, that means there is 1 star per 5.25 cubic light years.

With stars massed together like that, the average distance between stars in the galactic nucleus is 1.7 light years—but that's the average over the entire volume. The density of star numbers in such a nucleus increases as one moves toward the center and I think it is entirely fair to expect that toward the center of the nucleus, stars are not separated by more than half a light year.

Even half a light year is something like 3,000,000,000,000 miles or 400 times the extreme width of Pluto's orbit so that the stars aren't actually *crowded*; they're not likely to be colliding with each other, and yet—

For suppose that, within the galaxy, a supernova lets go——
BOOM-M-M-M!!

What happens?

In most cases, nothing (except that one star is smashed to flinders). If the supernova were in a galactic suburb—in our own neighborhood, for instance—the stars would be so thinly spread out that none of them would be near enough to pick up much in the way of radiation. The incredible quantities of energy poured out into space by such a nova would simply spread and thin out and come to nothing.

In the center of a galactic nucleus, the supernova is not quite as easy to dismiss. A good supernova at its height is releasing energy at nearly 10,000,000,000 times the rate of our Sun. An object five light-years away would pick up a tenth as much energy per second as the Earth picks up from the Sun. At half a light-year from the supernova it would pick up ten times as much energy per second as Earth picks up from the Sun.

This isn't good. If a supernova let go five light-years from us, we would have a year of bad heat problems. If it were half a light-year away, I suspect there would be little left of Earthly life. However, don't worry. There is only one star-system within five light-years of ourselves and it is not the kind that can go supernova.

But what about the effects on the stars themselves. If our Sun were in the neighborhood of a supernova, it would be subjected to a bath of energy and its own temperature would have to go up. After the supernova is done, the Sun would seek its own equilibrium again and be as good as before (though life on its planets may not be). However, in the process, it would have increased its fuel consumption in proportion to the fourth power of its absolute temperature. Even a small rise in temperature might lead to a surprisingly large consumption of fuel.

It is by fuel consumption that one measures a star's age. When the fuel supply shrinks low enough, the star leaves the main sequence and expands into a red giant or explodes into a supernova or something. A distant supernova, by warming the Sun slightly for a year, might cause it to move a century, or ten centuries closer to such a crisis. Fortunately, our Sun has a long lifetime in the main sequence ahead of it (several billion years) and a few centuries or even a million years would mean little.

Some stars, however, cannot afford to age even slightly. They are already close to that state of fuel consumption which will lead to drastic changes, perhaps even supernova-hood. Let's call such stars, which

are on the brink, pre-supernovas. How many of them would there be per galaxy?

It has been estimated that there are an average of 3 supernovas per century in the average galaxy. That means that in 33,000,000 years there are about a million supernovas in the average galaxy. Considering that a galactic life span may easily be a hundred billion years, any star that's only a few million years removed from supernova-hood may reasonably well be said to be on the brink.

If, out of the hundred billion stars in an average galactic nucleus, a million stars are on the brink, then 1 star out of 100,000 is a pre-supernova. This means that pre-supernovas within galactic nuclei are separated by average distances of 80 light-years. Toward the center of the nucleus, the average distance of separation might be as low as 25 light-years.

But even at 25 light-years, the light from a supernova would be only $1/250$ that which the Earth receives from the Sun and its effect would be trifling. And, as a matter of fact, we frequently see supernovas light up one galaxy or another and nothing happens. At least, the supernova slowly dies out and the galaxy is then as it was before.

However, if the average galaxy has 1 pre-supernova in every 100,000 stars, particular galaxies may be poorer than that in supernovas—or richer. An occasional galaxy may be particularly rich and 1 star out of every 1000 may be a pre-supernova.

In such a galaxy, the nucleus would contain 100,000,000 pre-supernovas, separated by an average distance of 17 light-years. Toward the center, the average separation might be no more than 5 light-years. If a supernova lights up a pre-supernova only 5 light years away it will shorten its life significantly and if that supernova had been a thousand years from explosion before, it might be only two months from explosion afterward.

Then, when it lets go, a more distant pre-supernova which has had its lifetime shortened, but not so drastically, by the first, may have its lifetimes shortened again by the second and closer supernova and after a few months, *it* blasts.

On and on, like a bunch of tumbling dominoes, this would go on, until we end up with a galaxy in which not a single supernova lets bang, but several million perhaps, one after the other.

There is the galactic explosion. Surely such a tumbling of dominoes would be sufficient to give birth to a coruscation of radio waves that would still be easily detectible even after it had spread out for a billion light years.

Is this just speculation? To begin with, it was, but in late 1963, some observational data made it appear to be more than that.

There is a galaxy in Ursa Major which is called M82 because it is number 82 on a list of objects in the heavens prepared by the French astronomer, Charles Messier, about two hundred years ago.

Messier was a comet-hunter and he was always looking through his telescope and thinking he had found a comet and turning handsprings and then finding out that he had been fooled by some foggy object which was always there and was *not* a comet.

Finally, he decided to map each of 101 annoying objects that were foggy but were not comets so that others would not be fooled as he was. It was that list of annoyances that made his name immortal.

The first on his list, M1, is the Crab Nebula. Over two dozen are globular clusters (spherical conglomerations of densely-strewn stars), M13 being the Great Hercules Cluster, which is the largest known. Over thirty members of his list are galaxies, including the Andromeda galaxy (M31) and the Whirlpool galaxy (M51). Other famous objects on the list are the Orion Nebula (M42), the Ring Nebula (M57) and the Owl Nebula (M97).

Anyway, M82 is a galaxy about 10,000,000 light-years from Earth which aroused interest when it proved to be a strong radio-source. Astronomers bent the 200-inch telescope upon it and took pictures through filters that blocked all light except that coming from hydrogen ions. There was reason to suppose that any disturbances that might exist would show up most clearly among the hydrogen ions.

They did! A three-hour exposure revealed jets of hydrogen up to a thousand light-years long, bursting out of the galactic nucleus. The total mass of hydrogen being shot out was the equivalent of at least 5,000,000 average stars. From the rate at which the jets were traveling and the distance they had covered, the explosion must have taken place about 1,500,000 years before. (Of course, it takes light ten million years to reach us from M82 so that the explosion took place 11,500,000 years ago, Earth-time—just at the beginning of the Pleistocene.)

M82, then, is the case of an exploding galaxy. Some five million supernovas formed in rapid succession, like uranium atoms undergoing fission in an atomic bomb, though on a vastly greater scale, to be sure. I feel quite certain that if there had been any life anywhere in that galactic nucleus, there isn't any now.

In fact, I suspect that even the outskirts of the galaxy may no longer be examples of prime real estate.

Which brings up a horrible thought—Yes, you guessed it!

What if the nucleus of our own dear Galaxy explodes? It very likely won't, of course (I don't want to cause fear and despondency among the Gentle Readers) for exploding galaxies are probably as uncommon among galaxies as exploding stars are among stars. Still, if it's not going to happen, it is all the more comfortable then, as an intellectual exercise, to wonder about the consequences of such an explosion.

To begin with, we are not in the nucleus of our Galaxy, but far in the outskirts and in distance there is a modicum of safety. This is especially so since between ourselves and the nucleus are vast clouds of dust that will effectively screen off any visible fireworks.

Of course, the radio waves would come spewing out, through dust and all, and this would probably ruin radio astronomy for millions of years by blanking out everything else. Worse still would be the cosmic radiation that might rise high enough to become fatal to life. In other words, we might be caught in the fallout of that galactic explosion.

Suppose, though, we put cosmic radiation to one side, since the extent of its formation is uncertain and since consideration of its presence would be depressing to the spirits. Let's also abolish the dust clouds with a wave of the speculative hand.

Now we can see the nucleus. What does it look like without an explosion?

Considering the nucleus to be 10,000 light-years in diameter and 30,000 light-years away from us, it would be visible as a roughly spherical area about 20° in diameter. When entirely above the horizon it would make up a patch about $1/65$ of the visible sky.

Its total light would be about 30 times that given off by Venus at its brightest, but spread out over so large an area, it would look comparatively dim. An area of the nucleus equal in size to the full Moon would have an average brightness only $1/200,000$ of the full Moon.

It would be visible then as a patch of luminosity broadening out of the Milky Way in the constellation of Sagittarius, distinctly brighter than the Milky Way itself; brightest at the center, in fact, and fading off with distance from the center.

I can imagine a civilization growing up on Earth under conditions of no Galactic dust. Surely, they would think of the Milky Way as the "Diamond Ring", with the nucleus of the Galaxy as the diamond.

What myths would such a civilization develop? If the diamond ring is the symbol of an engagement, to whom would the Earth (or mankind) be affianced? To the Sun god?

The diamond (or nucleus) would be highest in the sky on June 1,

riding the zenith at midnight. Naturally, June would be the month for weddings, wouldn't it? And with better mythological reason than any we now have.

But now what if the nucleus exploded? The explosion would take place, I feel certain, in the center of the nucleus, where the stars were thickest and the effect of one pre-supernova on its neighbors would be most marked. Let us suppose that 5,000,000 supernovas are formed, as in M82.

If the nucleus has pre-supernovas separated by 5 light-years in its central regions (as estimated earlier in the article for galaxies capable of explosion) then 5,000,000 pre-supernovas would fit into a sphere about 850 light-years in diameter. At a distance of 30,000 light-years, such a sphere would appear to have a diameter of 1.6 degrees of arc. This is a little more than three times the apparent diameter of the full Moon and covers a portion of the sky just about 10 times that covered by the full Moon. We would therefore have an excellent view.

Once the explosion started, supernova ought to follow supernova at an accelerating rate. It would be a chain reaction with all that that would imply. It seems to me that all five million would have fired up before the first to go would have had a chance to fade off significantly. Therefore, we ought to be able to view the nucleus with all five million supernovas in action at once.

Supernovas don't live long. After a year and a half they have consumed their fuel, which they have used up at a most prodigal rate, and are back to dimness again. All five million supernovas would fade off in that same interval and the nucleus would be back to its original luminous haze except that now it would be one huge mass of swirling, torn gouts of gas and would look like a gigantic Crab Nebula visible to the naked eye. The pattern would slowly change over the centuries and would clearly be expanding. It would take five million years, perhaps, for the gases of that explosion to reach our own vicinity but by then they would have thinned out to the point where they would be harmless.

The radio waves and cosmic radiation—But I've mentioned them already. Forget them and consider, instead, how bright the exploding nucleus might appear.

A single supernova can reach a maximum absolute magnitude of -17 . That means that if it were at a distance of 10 parsecs (32.5 light-years) it would have an apparent magnitude of -17 , which is $1/10,000$ the brightness of the Sun.

At a distance of 30,000 light-years, the apparent magnitude of such a supernova would decline by 15 magnitudes. The apparent magnitude would now be -2 , which is about the brightness of Jupiter at its brightest.

This is still a very startling statistic. At the distance of the nucleus, no ordinary star can be individually seen. The hundred billion stars of the nucleus just make up a luminous but featureless haze under ordinary conditions. For a single star, at that distance, to fire up to the apparent brightness of Jupiter, is simply colossal. Such a supernova, in fact, burns with a tenth the light intensity of an entire non-exploding galaxy such as ours.

Yet it is unlikely that every supernova forming will be a supernova of maximum brilliance. Let's be conservative and suppose that the supernovas will be, on the average, two magnitudes below the maximum. Each will then have a magnitude of 0, about that of the star, Arcturus.

With some five million such supernovas blazing out in the nucleus, there would be a total brilliance equal to nearly 50,000 times that of the full Moon, spread out over an area some ten times that of the full Moon.

Nevertheless, the nucleus will not merely look like a bigger and brighter Moon. For one thing the nucleus will not show phases or move against the background of the stars. It will always be full and it will always be in Sagittarius. Furthermore, it will not be constant in brightness but will fade off rather rapidly.

Its oddest peculiarity, it seems to me, will be its variation in brightness from point to point. It will be most intensely bright at the center; probably bright enough to hurt the eye and would fade out toward the edge. (I suppose if civilization were at the myth-making stage, legends would persist far into the future of the time when the diamond was actually set into the ring and blazed brilliantly.)

The half of the sky in which the nucleus is found would be blanked out, of course, and unobservable in the flood of light (except for observatories established on an airless world such as the Moon and there the hard radiation of the explosion, unmitigated by an atmosphere, would be all the more deadly). For the months of May and June when the Sun and the exploding nucleus would be in opposite parts of the sky, the Earth would pass through a nightless period.

On the whole, the explosion would be too great to be comfortable and it might be well to give the whole glorious sight a miss and be grateful for the kindly dust-clouds that block us off from the nucleus.

Can we find something smaller and milder perhaps? There's a conceivable possibility. Here and there, in our Galaxy, there are to be found globular clusters. It is estimated there are about 200 of these per galaxy. (About a hundred of our own clusters have been observed, and the other hundred are probably obscured by the dust clouds.)

These globular clusters are like detached bits of galactic nuclei, 100 light-years or so in diameter and containing from 100,000 to 10,000,000—symmetrically scattered about the galactic center.

The largest known globular cluster is the Great Hercules Cluster, M13, but it is not the closest. The nearest globular cluster is Omega Centauri, which is 22,000 light-years from us and is clearly visible to the naked eye as an object of the fifth magnitude. It is only a point of light to the naked eye, however, for even a diameter of 100 light-years covers an area of only about 1.5 minutes of arc in diameter, if that 100 light-year width is 22,000 light-years away.

Now let us say that Omega Centauri contained 10,000 per-supernovas and that every one of these exploded at once or nearly at once. The total brightness of the cluster would become 200 times as bright as the planet Venus at its brightest. It would indeed be a tenth as bright as the full Moon and would glitter brilliantly.

It would be a perfectly ideal explosion, for it would be unobscured by dust clouds; it would be small enough to be quite safe; and large enough to be sufficiently spectacular for anyone.

And yet, now that I've worked up my sense of excitement over the spectacle, I must admit that the chances of viewing an explosion in Omega Centauri are just about nil. And even if it happened, Omega Centauri is not visible from New England and I would have to travel quite a bit southward if I expected to see it high in the sky in full glory—and I don't like to travel.

Hmm—Oh, well, anyone for a neighborhood fire?



Introduction to Bryce Walton's FINAL EXAM

Bryce Walton formerly used the pseudonym "Kenneth O'Hara" before learning that there is a real Kenneth O'Hara who is also writing fiction; the task of sorting out O'Haras, we willingly leave to others. Mr. Walton was a staff correspondent for the U.S. Marine magazine, Leatherneck, in the South Pacific when his first published story appeared in Planet Stories, 1945. It was called The Ultimate World. He has been steadily turning out fiction ever since, and has also (with his wife, Ruth, a jeep, a Siamese cat and a typewriter) moved more or less continuously from one end of the country to the other. "I am a compulsive scene-shifter." While traveling, he has found time to turn out over 700 stories and novelets for just about every magazine in existence, adventure, western, horror, detective and science fiction, two books, and many of the old Captain Video TV scripts, and numerous articles. In 1961, he won the Alfred Hitchcock Best Short Story of the Year Award, and has been turning out too many mystery stories and Hitchcock teleplays to have much time for fantasy and science fiction. THE CONTRACT appeared in F&SF, July 1956. His THE MIDWAY, also in F&SF, Feb. 1955, was described by Anthony Boucher as "a brilliantly vivid nightmare." Walton is temporarily restrained from more scene-shifting in New York City, with his wife, Siamese cat, typewriter and some 2000 books. His agent insists that he stay put long enough to finish a book now in progress. In this story he takes the classical Last Man, Woman motif and shows that a good writer can always find something new to say on a good theme.



FINAL EXAM

by Bryce Walton

"BUT SOMETHING MOVED OVER there," Leslie said, aloud.

One of the first rules he had made for himself was—no talking to himself. But there, for the first time in almost five years, were the rusty vibrations of his own baritone troubling the morning air.

"Couldn't be," he answered, shocked.

"A shadow of some kind," Leslie said.

"Mine."

"A sighing sound in the leaves."

"My breath. Mine!" Leslie walked straight on to the entrance of the Life Science Building. Not even an eye flicker admitted the insufferable possibility of some change in the familiar.

"Something soft against the hot summer earth."

"No!"

"Brown, ripe, soft. Something with yellow hair."

His lips clamped. He began to feel of his biceps, his naked chest in the sun, just as every morning and night he felt himself all over, so that soothing pride might collect him together again. But all the way down the corridor, into the lecture hall and to his regular front row seat, he was carefully

conscious of every inch of the way, as though he were crawling on a crag. He opened notebook, unpeeled pencil, propped up Social-Psychology III text in carefully paced ritual. This was part of the set schedule and repetition of another day. But today the simple settling into regular monotony failed to have its usual soothing effect. The rat's claw of lurking imagination scratched at his armor.

He blinked at the podium, the blackboard. At graphs, statistics, calculations that reassured, always should come out right. He sat nearly motionless for ten minutes enduring, resisting an inner wild feeling of flight. Stop it, Leslie. Running from yourself is madness. You know, you've tried it. You ran and ran.

There's no woman lying naked out there on the grass, Leslie. There's no one at all, anywhere.

Survival meant a continued steady spinning in a straight line, like a gyroscope. After all these years plying himself with mental drugs of inoculation, soaking his will with rigid defense, regression would be fatal. Hunger that could never be satisfied became fever.

Juices bubbled inside, fermented powerfully, exploded, ballooned out in projected fantasies, could carry you into delusionary oblivion. Believe in that fantasy again, even for a second, Leslie, you're gone. Schizophrenia, insidious twilight zone of reality entangled with hallucination, the enemy of the lone man, death to the loneliest man in the world. You could run across an empty earth, never find the answer. Kill the need. He knew, he had run a long time. He'd thought that all traces of other living flesh had been expelled from his brain, but maybe they couldn't be killed. Only forced into atrophy by disuse, like muscles or atavistic organs.

No other shadowy creation, ripe-breasted, young, waits on the green grass mattress under the pepper trees, Leslie.

He had run fast, far, during those first terrible lonely days, eyes trained, ears strained to shattering silence. That was all over. You've won, Leslie. You don't need anyone else. There can't be anyone else. Fires sucked them all away, all but you.

He sat, rigid. Nerves seemed to be concentrated in the tips of his fingers, around his mouth, along the bridge of his nose. He kept touching, smelling his fingertips, stroking his own lips.

Self-love absorbed every globe of his being.

Almost.

He lunged up, drawing a hand across his eyes as a diver does coming to the surface. He ran. He shot, skidded an erratic course down the hall, spun out into the sunlight, cautious dream-engine sputtering and coughing. He seemed pulled, agitated by gravitation back to the green grass, knew that when he saw nothing there, he was gone irretrievably through the looking glass. There was no one to retrieve him.

Nothing, of course, Nothing on the grass but remnants of dew. He started to laugh or scream, a final postponed paroxysm of defeat. He heard the sigh. Leaves rustled.

The woman. She came toward him out of the shade of pepper trees, her lovely face glowing like a new sun with wonderment and joy.

He froze, concentrated on two vital acts of perception.

She was real.

She was a woman.

God, a real woman all right. You could be in error about a dream, never about the real thing. Being real, and so much of a woman, made her almost incredible anyway, after so many years. A woman, very real, all woman. Big, leggy, full breasted, ripe-hipped. That was enough to know now. Details weren't important. All he could do was stand, his rusted mouth bent open, laughing, sobbing, shouting without making a sound. She began to run

with blonde hair and arms flying out. Sounds began to gurgle through the thawing conduits of his throat. She had dressed, he saw now. Short suede leather skirt, a jacket unlaced two thirds of the way down. She bounced energetically as she ran.

They fell into one another, danced back, moved around one another like strange birds in a mating dance. They ran into each other's arms again, faces glazed with wonderment. They fused, clutched, fondled, felt again. They pressed, parted, reunited. They mumbled, murmured, inarticulate, unintelligible, unimportant. They might have been children in a primary, purely tactile, discovery of the ecstasy of other flesh, warmth, being. That was enough, it seemed, for a long time as the sun rose. They had fallen together on the grass, nuzzling, trembling and squeezing. And it had almost, but not quite happened, the final burst of togetherness, as if two insects had collided in midair.

"Anna, I'm Anna," she murmured against his bare chest.

"Leslie," he groaned.

"Dear Leslie . . . oh . . . my dear . . . oh . . ."

"Anna . . ."

But something drove between them. Leslie felt it suddenly. Something cold. He was on his feet and edging away. She came up, swaying as if drugged, her body thrust-

ing and eyes drooping. He was already running.

"Leslie!" she screamed.

He hesitated, turned, ran back. "Forgot I wasn't still alone." He pulled her after him.

"Leslie, what is it?"

He pointed at the agitated leaves. "Wind. Run!"

They ran through weeds choking the campus, through twisted arches, fluted columns that resembled giant fractured bones. They circled buildings jiggled to distortion by monstrous super concussion and flame-wind shock. The wind sighed, louder.

"Hurry, faster," Leslie yelled.

She fell. He dipped her up, ran across the ruptured football field. Around the crumbled stadium and mouldering bleachers. He hurdled snarls of weed and vine, twisted concrete, like a panther going over thorn hedges. She admired the thrust of his muscles carrying her as if she were nearly weightless, but she seemed puzzled.

"Where we going, Leslie?"

"Shelter."

"Why?"

"The wind . . ."

They sat in darkness aware of only a pale suggestive glow of one another. She kept edging toward him, feeling him as if afraid he might not be there after all. It was damp, chilled, in the hole. A little jag of sunlight appeared way off through a rip in faulty con-

crete. She trembled against him and finally his arm crept over her shoulders and pulled her in tight. She curled sighing over, onto his lap. But he kept tensing, listening, almost as if still expecting air-raid warning sirens to howl undulating hysteria, more jets to shred the sky. But it wasn't that. That was too long ago. The wind.

She whispered. "Nothing to be afraid of now, Leslie. That's one thing good about it maybe. Nothing to be afraid of now. There's just us."

"I sleep here," he said calmly. "Never know when a wind's coming up. When it does, I always run down here. Safest place."

"But the wind's safe now. I've been walking, living in it a long time."

"Maybe not. You never know."

"I'm healthy. Leslie, it can't hurt us now."

"Can't be too careful about the wind," Leslie said. "You never know where it might be coming from."

She didn't answer. After a while, she said. "I don't hear it now."

"We'll wait a little longer. Be sure."

"All right, Leslie."

She twisted in his lap and pulled his head down and found his mouth with her lips. Her flesh was firm, warm under his hands. He felt a little less stiff and awkward and he wanted to talk now.

Light, get-acquainted talk, he thought. And it created a nice, cozy atmosphere in the dark, a thickening fog in which they began to lose a sense of themselves and sink nearer to one another. It occurred to Leslie suddenly that they would soon not be responsible for anything that happened. He twisted, moved in such a way that she slid from his thighs. She held his hands and leaned her head against his shoulder. He kept hearing her disappointed sigh.

"Listen—God—I don't mean—Anna, it's just that it's too much all at once. I can't explain it. I'd decided there was only me. That was hard to do, live with. Now—I never thought it would be like this—trying to get back."

She said softly, with warming reassurance. "It's all right, Leslie. Everything is. We found each other. Nothing else can ever make any difference. We're together. If I didn't know it once, I know it now. Nothing else is important. Oh . . . Leslie . . . nothing else."

"I was sure there was no one else," he said.

"I wasn't. I never gave up, Leslie. I kept looking. I just thought—well—there *had* to be someone else."

"I looked, for years, drove thousands of miles. I listened to the radio. I finally decided there was no one. It wasn't easy."

"Forget all that. We're together. That's miracle enough for now."

He felt relieved. "Miracle. Yes, maybe it is. Are we really the only two people left, Anna?"

"There may be a few others scattered around somewhere. I drove all over the U.S. Up into Canada, down into Mexico. Never saw a sign of anything living. It's a big world isn't it, Leslie? A few people somewhere, and maybe they won't last long. I guess, for all practical purposes, we're it."

"Practical purposes," he said very seriously.

She snuggled close again. "Where did you come from, Leslie?"

"Here. I was a student. I looked, then came back to school, and decided to be a lifetime scholar. I enrolled myself, gave myself lectures, assignments. Never have missed a class, until today."

"Sorry, Leslie." She gave a little giggle and squeezed his arm.

"Never missed a class or a final and never cheated on myself either," he said.

"I was just a little farm girl," she said. "Up near Fresno." Her voice was low, very low and intense. "Leslie, I just wanted to marry, have kids. I wanted hundreds of kids." She giggled again, and squirmed warmly against him. "It isn't such a silly idea, is it?"

"Silly? Was it ever silly?"

"Just kidding, Leslie. I mean, over-population danger and all, like they used to talk about. Good Lord, over-population!"

He sat stiffly, listening to their breaths mingling in the dark. She was murmuring against his face. She found his lips again. He felt her mouth press, her lips spread apart. He groaned, and she was sighing, twisting, promising everything.

"Oh God, I want you . . ."

"Leslie, dear . . . please . . . oh . . . oh, Leslie . . ."

He scrambled back and stood, a bit wildly. He could hear her scuffling, her breath catch several times in the dark. What the hell was the matter with him? That flash of fear. He didn't know what it meant, but there was no mistaking it. For a moment he'd felt that her presence had damaged him in some way, torn some rent in the delicate fabric of his flesh.

He found her hand. It felt cold. It trembled.

"Let's go up, Anna. The wind's gone."

He gave her a long, unrequested Cook's tour of the campus. She followed him, sometimes holding his hand. There was an odd puzzled twist to her mouth. She would suddenly smile when he glanced at her. Before sundown, they sat in the remains of the Shakespearian Garden by the canting sundial and opened special shelter rations and ate in silence. Finally she came over and sat beside him on the bench. She edged over until their thighs touched.

"Leslie," she said in a low voice. "What's the matter, dear?"

He smiled quickly, kept eating, observing her without seeming to do so. "Nothing, Anna. God, how could anything be the matter now?"

"I don't know."

She sat down on the grass. The setting sun turned her hair to soft gold as she looked up at him. She stretched her long legs. Her gorgeous breasts thrust up at him. He saw it again, that waiting smile. She was studying, measuring him for size, he thought, anticipating him in her female, almost mindless way, like part of the earth lying waiting for the rain. But that was corny, he thought quickly. That was a lot of damned foolish nonsense.

"You finished eating?" she finally asked.

He nodded.

"Come here, lie down here, Leslie." Her voice was pure promise now.

He stood up and realized that there was a rising instability in his knees. He bent down. He managed to shift his eyes.

"Leslie . . . please . . . for God's sake . . ."

He looked down, feeling the desire thrusting painfully, wanting her as he'd never wanted anything. He listened for any hint of the wind that often rose in the evening. She was waiting, her eyes closed, her body moving gently.

This is ridiculous, Leslie thought. She was the only woman. There was no need for speculations, timidity, uncertainty, any of that damned stuff. He had to realize the uniqueness of the situation. She had to go for him, no matter what, he had to remember that. He couldn't be compared with anyone, regardless of what he did or didn't do. His was a genuine position of authority and power, no doubt of it.

But there was something else, and in his state of feverish desire, it was difficult to know just what it was. He gripped her hand. The touch was fire. He fell to his knees and lifted her. She lay back as if she were drunk, lips loose and wet, eyes closed, face slack. Her jacket was off. He found the leather laces of her skirt. She put her open mouth to his cheek . . .

Her voice didn't rise, but it was more intense. "I was ready then, years back. I was seventeen. But I never—Leslie. Almost, you know what I mean, just enough that I've known so terribly what I wanted all these years. God, it's been so long . . ."

But he managed to force himself, maintaining control with difficulty. She fought. She tightened her arms, opened her mouth under his, pushed her body hard up into him. But he managed to break free. It had hit him with sudden clarity. It wasn't a question of timidity or uncertainty at all. It was a sense

of awful responsibility. She didn't have it. She was pure primitive desire, without a mind, without will or any thought beyond the next minute. It would have to be up to him to control, guide the thing. It was a hell of a responsibility all right.

He stood grimly in the shadow of a leaning pillar. She stumbled toward him and mumbled as she embraced him. Somehow he managed to push her away. She swayed, disheveled, breasts bare, a kind of pain twisting her face.

"Oh God, what's the matter?" she said, almost sobbing.

"It's been long," he said, "a long time, I know that. But that's no reason for us to lose all semblance of civilized behavior. Put on that jacket."

"What?"

"Put it on."

She just stood, shaking her head numbly. She almost whimpered. "It's awful now, it's a pain inside. I hurt with it, don't you understand anything? Please, do something!"

"It isn't easy for me either," he said, more curtly than he intended to.

She fell to her knees. "It isn't just that," she said. "Oh Lordy, don't you see, it's the whole damned future too. It's up to us."

"I know," he said solemnly. "That's why we've got to be careful, calm, practical about it."

"Wha—what?"

"We've got to do it right. As you say, the future depends on us."

She fumbled at her jacket, then sat limply on the bench. "Is something the matter with you?" she asked thinly.

"No," he said. "Hell no there isn't! You'll find out."

"When? Tell me!"

"Listen, I just won't be carried away. We're not going to make some terrible mistake. Too many mistakes. The future's up to us and you're right. It's a terrible responsibility. We must face it, accept it with maturity and integrity."

"God," she said. She sat there until the moon came up, then slowly she put her jacket back on and laced it up. "Well, Leslie, well—"

"Follow me, please," Leslie said.

Leslie lit candles in the basement of the Life Science Building, in the clinical psychology laboratory. He showed Anna the cages where the guinea pigs and rats had used to be. The machine for testing response speed. He showed her the galvanometer and the wispy dried shred of what had once been a frog's muscle fiber. There were many other machines and gadgets, but nothing worked anymore, Leslie said. No power. Maybe he would get around to trying to rig up a generator someday, but that would have to be after he studied electricity, engineering, stuff like

that. He was tied up yet in theoretical science.

Anna sat stiffly on the edge of a chair on one side of the shadowy room. It was damp down there. There were cracks running down the walls. She was staring at Leslie who opened file drawers, began drawing out folders. Her eyes followed his movements with a bright, unblinking intensity.

"What are you doing, Leslie?"

"There's certain preliminary steps we have to take," he said. He spread papers from opened folders over a large work table, and moved several candles nearer. He came over to her and gently touched her hair, and her cheeks. She shivered and closed her eyes.

"How long will it take, Leslie?"

"A couple of hours."

"Let's hurry, Leslie."

"It'll soon be over," he said. He leaned down and breathed in her hair. "Then we'll go back to the shelter, Anna. We'll stay there, won't we? Maybe we won't come out for a week, Anna."

A smile came back to her wide mouth. She managed a little giggle again. "What are you fixing, some kind of marriage ceremony?"

He had returned to the table, as if he hadn't heard her. Then he handed her a board on which was clipped several mimeographed sheets. He handed her a pencil, sat a candle so that the yellow light was right. "Just fill that out," he said. "Take your time."

She stared at the paper. "Sure, we got all the time in the world don't we, Leslie?"

Leslie sat in another chair across the room with a clipboard and mimeographed sheets of his own.

"We're taking the same test," he said once, as if to reassure her of something. Glancing up, he had seen something pleading, a tense look almost of fear, in her eyes

. . .

Two hours later he had finished his questionnaire. A few minutes later, Anna said she had finished with hers. Leslie took both sets of papers to the work table, moved candles into position. For another hour he worked very silently and seriously over the comparative figures. He made intricate curves on two sets of graph paper. The curves and markings on the paper were in very black India ink. The paper was thin tissue and when the two large sheets were placed one on top of the other, the black markings showed through when held up to a row of five candles.

Anna looked over Leslie's shoulder as he studied the comparative figures, and jotted down conclusions on a scratch pad.

She studied, without comprehension the bars and curves crossing, re-crossing one another among symmetrical squares.

"What's that, Leslie?"

He didn't answer. He dropped the pad, the papers, the pencil. He

was backing off into the shadows. She started after him.

"Stop," he shouted. "Don't make it any worse. Stay right there!"

"Leslie—for God's sake, what is it?"

He slid toward the door.

"What have we done, Leslie? Tell me!"

"Nothing, we haven't done anything, thank God!"

"What? Leslie, what are you saying. Where are you going? Wait, Leslie!"

"Don't follow me!" he almost screamed. She stopped and peered at his shadow by the door. Her face was a white blur.

"Scientific compatibility test, Anna," he said as if he were far, very far, away. "Slight divergences could be compensated for. But I'm afraid we're way—too far I mean—out of line."

"Out of line?"

"Those tests don't lie, Anna. They've tested true too many times."

"Tests, tests? What can anything matter when—?"

"Stay there," he said. "Let it alone now. We're in the same world, the same circle, Anna. But it's like one is a leap ahead of the other and going in the opposite direction."

"God," she whispered. She was leaning against the table. "Oh my God—"

He felt sad. She couldn't understand the logic of it probably. She

might never realize how much better off she would be.

"The hell with tests," she yelled suddenly. "We've got to make it work. We're all there is, all there is, Leslie!"

"We couldn't," he said flatly. "The comparative tests prove that. It would be a mutually destructive process all the way. A downward spiral of interactive sickness. Neither of us would survive it. Morbid dependency would be inconceivably worse because there isn't anyone else." He felt a sudden memory of punishments, fatigues, partings, regrets, horrors and felt very tired. He smelled his fingertips and felt of his lips, adoring himself desperately. "Listen, Anna. No matter where or what we are, there's a worse place, something worse. There's no one else. We know. We don't have to be victims."

"Leslie!"

It was an odd sound to him, like a squeak. And her face in the shadows scrunched and blobbed like something he might have chipped out of stubborn stone, as he turned and ran.

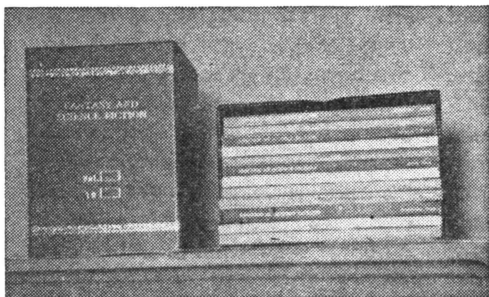
It was dark, but then the moon came out from behind clouds and he could see better. He kept on running. He kept hearing her somewhere running behind him as he ran down through the dry weeds towards the jackpines. It hurt, but the truth was like that. It hurt remembering her warm

unquestioning faith and honest open desires. But the tests were objective and wiser. They probed out the deep hidden things.

Once, when the wind rose a little, he thought he actually caught a whiff of her, a genuine smell of the female. But it seemed somehow mixed with burned earth and dead leaves as if she might have appeared from the pastures of the dead.

He finally stopped running and crouched down in a culvert out of the moonlight. There were no further sounds of pursuit. He breathed easier and fondled his lips. He had seemed to lure her, despite himself, like a pack of hounds after aniseed, but she seemed to have lost him for good.

Finally he stood up, breathing almost normally again, no longer afraid he was not alone.



Handsome, Sturdy
VOLUME FILES
for Your Copies of
**FANTASY AND
 SCIENCE FICTION**

Each Volume File will keep
 12 copies of FANTASY &

SCIENCE FICTION clean, orderly, and readily accessible. Sturdily built, the files are covered with a rich black and red washable leatherette, and the lettering is in 16-carat gold leaf.

Reasonably priced at \$2.50 each, 3 for \$7.00, or 6 for \$13.00, they are shipped fully prepaid on a money back basis if not satisfactory. Order direct from: **JESSE JONES BOX CORPORATION**

Dept. F&SF P.O. Box 5120

Philadelphia 41, Pa.

The somewhat unusual theme of the professional student was explored in Norman Kagan's FOUR BRANDS OF IMPOSSIBLE (September 1964). In the very different story below, Richard Lewis carries the concept a step (or two) further: The graduation and placement of Doctor (of Co-ordinated Sciences) Walter A. Basson, definitely not a Well Rounded Student.

THE DOCS

by Richard O. Lewis

THE ENTIRE AUDIENCE ROSE TO its feet automatically as the score of men, dressed in caps and gowns of bright crimson, filed onto the rostrum to form a line in front of their designated seats.

This was the Class of '84. These were the DOCS—the Doctors of Co-ordinated Sciences. They had been carefully screened through the years, and only those of the highest intelligence and mental-physical co-ordination had been permitted to continue the rigorous studies which would lead to this, the highest degree the scholastic world had to offer—the degree of DOCS.

Walter A. Basson could not help but experience a feeling of great pride and accomplishment as he took his seat at the head of the class. He had been graduated, *cum laude*, with a B.S. degree in

'64 at the age of 18 and had immediately matriculated in the special night-school college which, 20 years later, had brought him to his present status, *cum laude* again.

During those 20 years, Walter A. Basson had worked by day and had studied by night. And he had also gotten married. Those had been the lean years, the hard years. But now they were over. . . .

As the speaker of the evening began his orthodox and soporific oration, Walter A. Basson, DOCS, let his eyes wander over the audience. He spotted his wife and two daughters—Alice 12 and Marie 14—in the front row left and let the corners of his eyes crinkle an answering smile to his wife as she raised her hand chin-high to wiggle her fingers unobtrusively at him.

Walter paid little attention to

the oration. It had a familiar ring. He had heard it, with but slight variation, at eighth grade graduation, at high school graduation, and at college graduation. It pertained mostly to the great need for men of science in our modern age. . . .

Walter's quick, analytical brain pounced for a fraction of a second upon the phrase "in our modern age", tore it asunder, and cast it aside as being meaningless. *Every age* had been contemporarily *modern* since the beginning of time!

After that, he closed his mind to the orator while he rehearsed, photographically, the valediction he would present near the close of the formalities.

We need not delve here, even briefly, into the context of Walter A. Basson's valediction. Having spent the past 20 years of his life in close association with men engaged in the highest realm of letters and sciences, he had chosen his words carefully and had couched his phraseology in such a manner as to be entirely within keeping to his lofty position, which made it, of course, wholly unintelligible to the audience.

Then there was a round of hand-shaking and congratulations, and it was over.

The Dr. Walter A. Bassons held "open house" that night to commemorate the event, and Walter, for the first time in his life, donned formal attire, his dinner jacket

bearing a definite motif of entwining flowers with but the slightest hint of lace at the cuffs.

Although the Basson apartment was small, it proved to be spacious enough to afford ample accommodation for the few guests who arrived—more jealously than zealously—to offer congratulations in general and to partake of the viands in particular. It must be understood that Walter's friends were few, for during the past 20 years of study his social life had been all but nil.

Walter, justly proud of his scholastic accomplishments, had the documentary proof of his attainments spread out meticulously on the top of the spinet piano where they could be perused at will by the guests between or during drinks.

The world had long realized that the various fields of science were not isolated entities within themselves but, rather, that they formed a dovetailing continuum of closely related knowledge.

Walter tried to explain this to his guests after his fifth glass of gin, neat. "Mathematics is the constructional material of physics," he said. "And physics, in turn, furnishes the building-blocks for chemistry which is the very foundation of biology upon which all life is based. Thus an exact co-ordination of the disciplines is vital to a complete and pragmatic utilization of. . . ."

But no one was paying much attention to Walter. The guests were much more attentive to the pragmatic depletion of platters and the three bottles of gin on the table.

Walter had made straight A's in every subject during his 20 years of higher learning, as the documents upon the spinet testified. Straight A's in every subject—save one: *social ethics*. In this subject Walter had made only a B plus—which may possibly shed some light on why he was not the perfect host, why he had fewer friends than he might have had, and why the evening's entertainment consisted only of an accounting of his own accomplishments.

"It has been assumed that the good is the enemy of the best," said Walter. He had his seventh glass of gin now and was attempting to explain the reason for his low grade in social ethics. "Logically, however, the reverse is true: the best must always be the enemy of the good. The consequential must always supersede the inconsequential in direct ratio to its own degree of consequentiality. . . ."

No one was listening. The party had been a short one. Everyone had gone home. Alice and Marie had passed out under the table, and Mrs. Dr. Walter A. Basson had bedded down among the documents atop the spinet.

Walter surveyed the culinary carnage on and about the table

and found three fingers of gin left in one bottle. He consumed it slowly while complimenting himself both on his scholastic attainments and on the fact that the gin acted as a stimulant to his great brain and not as an intoxicant.

Thirty-two seconds later, Walter fell flat on his face, for he, like the other members of his family, had never had opportunity to master the art of social drinking.

There followed two weeks of strenuous apprenticeship to the responsible position Walter was to assume. But he didn't mind it, for the salary was quite in keeping with both the strenuousness and the responsibility.

Walter threw another party at the end of his apprenticeship. He did not invite his friends, however—which, again, may have had some pertinence to his B plus in social ethics. Only his wife and two daughters were present, and but one bottle of gin was consumed.

Then came that memorable Monday in September, 1984, when Walter A. Basson, Doctor of Co-ordinated Science, took over one of the most important and responsible positions the world of science could possibly offer to mere man.

At 7:45, A.M., Walter entered the huge, dome-shaped building.

At exactly eight o'clock, he seated himself before the great machine.

There were rows and banks and tiers of buttons and dials, and lights of variegated colors flashed on and off. Electrical impulses flickered and scintillated and chased each other across miniature screens, and deep within the monster was a muted humming not unlike that of distant swarms of bees.

Walter sat with his eyes upon the machine, all faculties alert, his mind analysing, evaluating, computing.

At exactly 8:34:02, Walter pressed a button, and a cure for the common cold became a reality and was instantly tabulated.

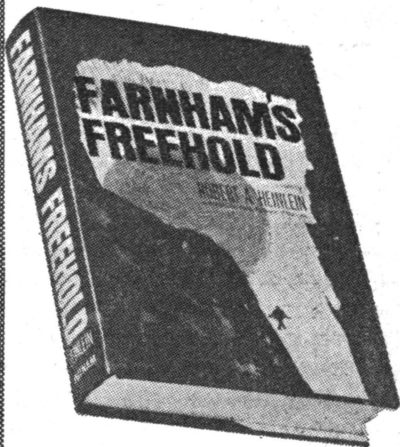
At exactly 9:12:23, Walter pushed another button, and a simple method for trisecting an angle came into being.

At precisely 11:06:36, Walter hesitated a split second, pressed another button, and blew two-thirds of the southern hemisphere to hell and gone.

Approximately 30 seconds later, Walter was relieved of his position and sent back to college to brush up a bit on social ethics.



The best Heinlein yet!



Three-time winner of the Hugo Award, "America's acknowledged master of science fiction" (*Chicago Tribune*) now combines relentless suspense and razor-sharp satire in the tale of an American family hurled into a distorted society of the future. **\$4.95**

Also by Robert A. Heinlein

ORPHANS OF THE SKY	\$3.50
GLORY ROAD	\$3.95
PODKAYNE OF MARS	\$3.50
STARSHIP TROOPERS	\$3.95
STRANGER IN A	
STRANGE LAND	\$4.95

At bookstores, or from
G. P. PUTNAM'S SONS

200 Madison Ave., N. Y. 10016.

BOOKS



GREYBEARD, Brian W. Aldiss, Harcourt, Brace & World, \$4.50

Here goes civilization down the drain again. England seems particularly susceptible to cataclysm. If it isn't the triffids it's a great flood or a lack of grass. This time a nuclear disaster starts things downhill. By the 21st Century there is chaos, pestilence, sterility and attacks by rats and stoats. Wading through all this is middle-aged Algy Timberlane, better known as Greybeard. Before the world really went to pot Algy worked for, so help me, an organization called DOUCH(E). The novel alternates between the current aimless odyssey of Algy and his wife and flashbacks to Algy's DOUCH(E) days when he had something or other to do with documenting history.

Aldiss has attempted a book that mixes the prosaic with the cosmic. There have been, from Wells to Wyndham, some great British science fiction novels that put quiet everyday people up against vast catastrophes. There have been, too, some dreary turkeys in this genre. *Greybeard* is one more turkey. Aldiss' novel is dull and petu-

lant, the style a mixture of tin-eared slang and pretty writing. The unrelieved gloom that Aldiss lets loose here can get pretty silly. When a character says, "I got engaged to a girl called Peggy Lynn. She wasn't in good health and had lost all her hair. . . . Well, of course we got medically examined and were told we were sterilized for life, like everyone else. . . . Somehow that killed the romance," you have a difficult time feeling the compassion that Aldiss seems to be hoping for.

MARTIAN TIME-SLIP, Philip K. Dick, Ballantine, 50¢

Philip Dick has put together many excellent science fiction novels. He is particularly good at satire and at subtly unsettling scenes. This book has the usual Philip Dick complex cross-cutting plot. It combines the everyday problems of settlers on Mars, the dreams of glory of a Martian labor union and the teetering on the edge of a schizophrenic. There is also a fine sympathetic presentation of disturbed children. There is some fuzziness around the con-

clusion. But Dick is sure to unsettle and disturb you with the increasingly out of kilter world he has set up on Mars.

RIDDLES OF ASTRONOMY, Otto O. Binder, Basic Books, \$4.95

What information Binder has to offer is conveyed in the style used by writers of columns that answer questions about sick pets. I find it impossible to take to my heart a book that has chapters called Moon Mysteries, Puzzle Planets, Way-Out Worlds, Maverick Moons and Solar Secrets. Binder has further chosen to label each of the hundred some riddles of his title Mystery 1, Mystery 2, etc.

SPECTRUM 3, Kingsley Amis and Robert Conquest, editors, Harcourt, Brace & World, \$4.50

"Science fiction, like other elements in the literature of the English language, is not bounded by nations and oceans, any more than its ideas find any limits in the depths of space and of the human mind," say the editors. You can see them saying it, standing on some chill peak in the Himalayas maybe, planting a flag.

Discounting the noble introduction the real purpose of these Spectrum anthologies seems to be the slow doling out of one story by everybody who has ever written science fiction. I figure my turn

will come about Spectrum 17. Four and a half dollars is considerable to pay for eight mostly familiar stories. But if you have been looking for a source of Theodore Sturgeon's *Killdozer* and Alfred Bester's *Fondly Farenheit*, both these exceptional stories are included. Along with works by Poul Anderson, J. G. Ballard, Murray Leinster and Arthur C. Clarke.

THE PILGRIM PROJECT, Hank Searls, McGraw-Hill, \$4.95

A big slick novel about putting a man on the moon. Its characters have names like Rick Lincoln, Max Steiger and Steve Lawrence. You can bet the book will eventually be a movie, starring actors with names like Rick Lincoln, Max Steiger and Steve Lawrence.

GULLIVER OF MARS, Edwin L. Arnold, Ace, 40¢

The latest flareup of Burroughsmania. Now they've dug up the man Edgar Rice Burroughs seems to have cribbed his Mars books from. Arnold wrote this thing in 1905 and called it *Lt. Gulliver Jones: His Vacation*, one good reason why nobody thought it was a classic till Ace Books got hold of it. In the novel Jones, an American Navy man, gets to Mars by way of a flying carpet. He is pretty excited about this. At one point he exclaims to his guide, "The town, my

dear boy! the town! I am all agape to see it." Later he says, "To live under such a nightmare is miserable, and a poet on my side of the ether has said—

*'He either fears his fate too much,
Or his deserts are small,
Who will not put it to the touch,
To win or lose it all.'* "

Which is how sailors talked back then. Arnold certainly deserves a place alongside The Master. He is just as stilted, dull and unconsciously funny as ERB himself.

THE DARK SIDE OF THE EARTH, Alfred Bester, Signet, 50¢

These columns have been tardy in acknowledging the return, briefly, of Alfred Bester to science fiction. Put together in this new collection are seven stories, most of which have appeared in F&SF over the past decade. There is one fine new one, a long funny adventure called *The Flowered Thundermug*. It takes place in a future when all the United States is Great LA and people are named Paul Muni, David Niven, Edward Everett Horton, Ed Brophy and Ann Sothern. The book also includes *Time Is The Traitor*, a story everybody should read.

THE PLANT, THE WELL, THE ANGEL, Vassilis Vassilikos, Alfred A. Knopf, \$5.95

This book offers three stories by a prize winning young Greek writer. Reading science fiction magazines conditions you in particular ways. You become used to certain structures in stories, to an economy in the telling. Certain themes and their variations grow to be old friends. Therefore it may be difficult for you to give Vassilis Vassilikos the virginity of perception needed to appreciate a 30,000 word story about, say, a young man who falls in love with a potted palm.

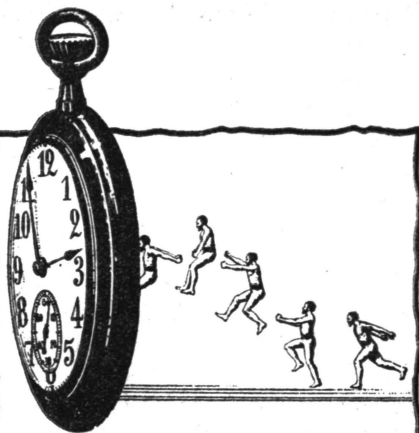
The dendrophilic youth figures in the first story, *The Plant*. Here we have a sensitive young student stealing a plant from the yard of a girl he has fallen in love with from afar. He takes the plant home to the ugly modern apartment house where he lives with his parents. The plant grows and grows, the student becomes more and more obsessed with it. The palm reaches such proportions that the other tenants come in and chop it up. Thus the student's apartment building triumphs. And when he finally decides to go and see the girl herself he discovers her house has been replaced by a brand new apartment building. The keynote of Vassilikos' social satire seems to be a surliness about new apartment buildings.

The Well unfolds in fifty four pages. In it an introspective (anybody who is given to fifty solid pages of reflection I put down as introspective) young man named Thanos and the family maid servant go to the well to fetch a pail of water. There is a possibility that the well is haunted.

Finishing up the trilogy is *The Angel*, which takes the form of a letter from a new angel to his sweetheart back on Earth. Imbedded in the letter is a long italicized flashback. The celestial part works over the notion that heaven is run along the lines of a military camp, with the newcomers treated like recruits. The flashback deals with a love affair of the narrator during his alive days. This portion is very intense and serious.

As stories Vassilikos' trio are slow and flat. He obviously means these things to be parables and allegories as well. Real religious parables and real folk allegories have the virtue of being succinct, and sometimes amusing. Vassilikos's stories are neither.

—RON GOULART



It is the year 2064. Chester W. Chester has inherited a neo-Victorian mansion and a computer whose memory banks contain the sum total of human knowledge.

"But," says Chester, "it's the biggest idiot savant in the world. It knows everything and doesn't know what to do with it."

Chester is wrong. The super-gadget can synthesize the past — in 3-D & living color. And Chester, all unwitting, finds himself trapped in the Neolithic Age. Escaping, he overshoots and lands in an even more threatening future . . .

Altogether a gorgeous adventure in the great time-warp tradition:

The Great Time Machine Hoax by Keith Laumer

Just out. \$3.95. Simon and Schuster

Russian writer Mikhail Bulgakov was born before the Revolution and died before the Thaw—as the (comparatively . . . very comparatively) relaxed period following the death of Stalin has been called. His death, unlike those of so many other Soviet writers who failed to please and were adjudged to have Done It To Annoy, Citizen Bulgakov appears to have died at large of natural causes. Nevertheless, his story here failed to win permission of publication during his lifetime. Miss Ginsburg is a translator from the Russian and Yiddish and most recently has translated A HISTORY OF SOVIET LITERATURE (Doubleday). Her translation of a play by Isaac Babel, SUNSET, is scheduled for an off Broadway production.

Oölogists may wink and sneer at certain aspects of the story. Let them. If we were Khrushchev we would have a peasant proverb for them. Failing that, let us say that it contains wit and terror and humanity and herpetology and a closer and more intimate view of some aspects of life in the Soviet Union a generation and more ago than is usually encountered. Satire, too. Only one thing makes us wonder: Suppose that the reason it was banned is because it is true?!

The Fatal Eggs

by Mikhail Bulgakov

(translated by Mirra Ginsburg)

ON THE EVENING OF APRIL 16, 1928, Vladimir Ipatievich Persikov, professor of zoology at the Fourth State University and director of the Zoological Institute in Moscow, entered his office at the Zoological Institute on Herzen

Street. The professor switched on the frosted overhead lamp and looked around.

He was exactly fifty-eight years old. His head was remarkable, shaped like a pestle, bald, with tufts of yellowish hair standing up

at the sides. His face was smooth-shaven, with a protruding lower lip, which lent Persikov's face a permanently pouting expression. His red nose was surmounted by old-fashioned tiny spectacles in a silver frame. His eyes were small and shiny. He was tall, with a slight stoop, and he spoke in a high, croaking voice. Among his other peculiarities was his habit, whenever he spoke of anything emphatically and with assurance, of screwing up his eyes and holding up the forefinger of his right hand, curled into a hook. And since he always spoke with assurance, his erudition in his field being phenomenal, the hook appeared very often before the eyes of Professor Persikov's listeners. As for any subjects that were outside his field, which included zoology, embryology, anatomy, botany and geography, Professor Persikov had little interest in them and scarcely ever troubled to speak about them.

The professor read no newspapers and never went to the theatre. His wife had run away from him in 1913 with a tenor from the Zimin Opera, leaving him the following note:

"Your frogs make me shudder with intolerable loathing. I shall be miserable for the rest of my life remembering them."

The professor never remarried and had no children. He was extremely short-tempered, but cooled

quickly, he was fond of tea with raspberries, and he lived on Prechistenka, in a five-room apartment. One of the rooms was occupied by housekeeper, Marya Stepanovna, a shriveled little old woman who looked after the professor like a nurse after a child.

In 1919 the Government requisitioned three of his five rooms, and he declared to Marya Stepanovna:

"If they don't stop these outrages, Marya Stepanovna, I shall emigrate abroad."

Had the professor realized his plan, he could easily have obtained the chair of zoology at any university in the world, since he was a truly outstanding scientist. With the exception of the professors William Weccle of Cambridge and Giacomo Bartolommeo Beccari of Rome, he had no equals in the field bearing in one way or another on the amphibians. Professor Persikov was able to lecture in four languages in addition to Russian, and spoke French and German as fluently as Russian. But his intention to emigrate was never carried out, and 1920 proved to be even worse than 1919. Events succeeded one another. First, Great Nikitskaya was renamed Herzen Street. Then the clock on the building at the corner of Herzen and Gorokhovaya stopped at a quarter past eleven. And finally, the terraria at the Zoological Institute became the

scene of wholesale deaths: 'the first to die, unable to endure the perturbations of that famous year, were eight splendid examples of the tree frog; then fifteen ordinary toads gave up the ghost, followed, finally, by a most remarkable specimen of the Surinam toad.

Directly after the toads, whose deaths decimated the population of that first order of amphibians which is justly known as tailless, the Institute watchman, old Vlas, who did not belong to the class of amphibians, moved on into the better world. The cause of his demist, however, was the same as that of the poor beasts, and Persikov diagnosed it at once:

"Lack of feed."

The scientist was perfectly right: Vlas had to be fed with flour, and the toads with meal worms, but since the former had disappeared, the latter had also vanished. Persikov thought of shifting the remaining twenty examples of the tree frog to a diet of cockroaches, but the cockroaches had also disappeared somewhere, demonstrating their malicious enmity toward Wartime Communism. And so, the last examples also had to be thrown into the garbage pits in the Institute backyard.

The effect of the deaths, especially that of the Surinam toad, upon Persikov defies description. He put the entire blame for the misfortune upon the current People's Commisar of Education.

Standing in his hat and goloshes in the corridor of the chilly Institute, Persikov spoke to his assistant, Ivanov, a most elegant gentleman with a pointed blond beard:

"Killing him is not enough for this, Pyotr Stepanovich! What are they doing? They will ruin the Institute! Eh? A magnificent male, an extraordinary example of *Pipa Americana*, thirteen centimeters long . . ."

As time went on, things went from bad to worse. After Vlas had died, the windows of the Institute froze over altogether, and the inner surface of the glass became encrusted with patterned ice. The rabbits died, then the foxes, the wolves, the fish, and all the grass snakes. Persikov went about in silence all day. Then he caught pneumonia but did not die. After recovering, he came to Institute to lecture twice a week in the amphitheatre, where the temperature for some reason remained a constant 5° below freezing regardless of the weather outside. Standing in his goloshes, in a hat with earflaps and a woolen muffler, exhaling clouds of white steam, he lectured to eight students on "The Reptilia of the Torrid Zone." The rest of the time Persikov spent at home. Covered with a plaid shawl, he lay on the sofa in his room, which was crammed to the ceiling with books, coughed, stared into the open maw of the fiery stove

that Marya Stepanovna was feeding with gilded chairs, and thought about the Surinam toad.

But everything in the world comes to an end. Nineteen-twenty ended, giving way to nineteen-twenty-one. And the latter year witnessed the beginning of a certain reverse trend. First, Pankrat appeared, to replace the late Vlas. He was still young, but he showed great promise as a zookeeper and janitor. The Institute building was now beginning to be heated. And in the summer Persikov managed, with Pankrat's help, to catch fourteen examples of the *Bufo vulgaris* in the Klyazma River. The terraria once again teemed with life. . . . In 1923 Persikov was already lecturing eight times a week—three times at the Institute, and five at the University. In 1924 he lectured thirteen times a week, as well as at Workers' Universities. And in 1925 he gained notoriety by flunking seventy-six students, all of them on the subject of the amphibians.

"You do not know how the amphibians differ from the reptiles?" Persikov would ask. "It is simply ridiculous, young man. The amphibians have no pelvic buds. None. Yes . . . You ought to be ashamed. You are probably a Marxist?"

"I am," the flunked student would answer, wilting.

"Very well, come back for re-examination in the fall, please,"

Persikov would say politely then turn briskly to Pankrat: "Next!"

Just as amphibians revive after the first heavy rain following a long drought, so Professor Persikov revived in 1926, when the united Russo-American Company build fifteen fifteen-story houses in the center of Moscow, starting at the corner of Gazetny Lane and Tverskaya, and three hundred eight-family cottages for workers on the outskirts of town, ending once and for all the rightful and absurd housing crisis which had caused the residents of Moscow so much hardship from 1919 to 1925.

In general, it was a splendid summer in Persikov's life, and he often rubbed his hands with a quiet and contented chuckle, recalling how crowded he had been in two rooms with Marya Stepanovna. Now the professor had all of his five rooms restored to him: he spread out, arranged his two and a half thousand books, his stuffed animals, diagrams and specimens in their proper places, and lit the green-shaded lamp in his study.

The Institute was also unrecognizable: it had been given a coat of ivory paint, a special pipeline had been installed to carry water to the reptiles' room, and all ordinary glass was replaced by plate glass. The Institute was also provided with five new microscopes, glass-topped dissecting tables,

2000-watt lamps with indirect lighting, reflectors, and cases for the museum specimens.

Persikov revived, and the whole world learned about it in December 1926, when he published his pamphlet entitled, "More on the Problem of the Propagation of the Gastropods."

And the summer of 1927 saw the appearance of his major opus, three-hundred and fifty pages long, later translated into six languages, including Japanese—*The Embryology of the Pipidae, Spadefoot Toads and Frogs*, State Publishing House, price 3 rubles.

But in the summer of 1928 came those incredible, frightful events . . .

The professor sat on a three legged revolving stool and with tobacco-stained fingers turned the adjustment screw of the magnificent Zeiss microscope, examining an ordinary undyed preparation of fresh amoebas. As Persikov was shifting the magnifier from five to ten thousand, the door opened slightly, affording a view of a pointed goatee and a leather bib, and the professor's assistant called:

"Vladimir Ipatievich, I have set up a mesentery, would you like to see it?"

Persikov nimbly slid off the stool, leaving the knob halfway, and, slowly turning a cigarette in his hands, he walked to his assist-

ant's room. There on the glass table, a frog, half-dead with fear and pain, was crucified on a cork plate, its translucent viscera pulled out of its bloody abdomen into the microscope.

"Very good" said Persikov, bending over the eyepiece.

Evidently, he could see something very interesting in the frog's mesentery, where living blood corpuscles ran briskly along the rivers of the vessels. Persikov forgot his amoebas and for the next hour and a half took turns with Ivanov at the microscope lens.

Finally, Persikov leaned back from the microscope, announcing: "The blood is clotting, that's that."

Stretching his numbed legs, Persikov rose, returned to his laboratory, yawned, rubbed his fingers over his permanently inflamed eyelids and sitting down on the stool, glanced into his microscope. He put his fingers on the knob, intending to turn it down. But he did not turn it. With his right eye, Persikov saw a blurred white disc, and in it, a number of faint, pale amoebas. But in the center of the disc there was a colored spiral, resembling a woman's curl. Both Persikov himself and hundreds of his students had seen this spiral many times, and no one had even taken any interest in it. Indeed, there was no reason to be interested. The multicolored swirl of light merely interfered with observation and showed that the

microscope was not in focus. It was therefore ruthlessly eliminated with a single turn of the knob, bringing an even white light to the entire field of vision. The zoologist's long fingers had already taken a firm grasp on the knob, when suddenly they quivered and withdrew. The reason for this lay in Persikov's right eye, which had in turn become intent, astonished, and then widened with something like alarm. His whole life, his whole mind were now concentrated in his right eye. The higher creature observed the lower one, tormenting and straining his eye over the preparation outside the field of focus. It was only later that the professor asked, no one knows whom:

"What is this? I do not understand . . ."

A belated truck rolled down Herzen Street, shaking the old walls of the Institute. The professor raised his hands over the microscope like a mother over an infant threatened with some danger. There was no longer any question of turning the knob.

It was bright morning, with a strip of gold slanting across the ivory entrance of the Institute, when the professor left the microscope and walked on his numb feet to the window. With trembling fingers he pressed a button, and the thick black shades shut out the morning, returning the wise, learned night to the study.

Sallow and inspired, Persikov stood with his feet spread wide apart, staring at the parquet with tearing eyes:

"But how can this be? But it is monstrous! . . . It is monstrous, gentlemen," he repeated, addressing the toads in the terrarium. But the toads slept and did not answer.

He was silent for a moment, then he raised the shades, turned off all the lights, and glanced into the microscope. His face became tense, and his shaggy yellow eyebrows came together.

"Uhum, uhum," he muttered. "Gone. I see. I see-e-e" he drawled, looking like an inspired madman at the extinguished bulb overhead. "It is very simple."

He swished the shades down once more, and lit the bulb again. Glancing at the bulb, he grinned gleefully, almost rapaciously.

"I'll catch it" he said with solemnly emphasis, "I'll catch it. "The sun might do it too."

Again the shades flew up. The sun was coming out. It poured its brightness on the Institute walls and fell in slanting planes across the paving stones of Herzen Street. The professor looked out of the window, calculating the position of the sun during the day. He stepped away and returned, again and again, hopping slightly, and finally leaned over the window sill on his stomach.

He busied himself with impor-

tant and mysterious tasks. He covered the microscope with a glass bell. Melting some sealing wax over the blue flame of the burner he sealed the edges of the bell to the table, pressing down the lumps of wax with his thumb. Then he turned off the gas, went out of his study and locked the door with the patent lock.

The Institute corridors were still in semi-darkness. The professor found his way to Pankrat's room and knocked on the door for a long time without result. At last Pankrat appeared in a square of light, in striped underpants tied at his ankles. His eyes stared wildly at the scientist; he was still groaning with sleep.

"Pankrat," said the professor, looking at him over his spectacles. "Excuse me for waking you. Listen, my friend, don't go into my study this morning. I left some work there, and it must not be moved. Understand?"

"U-hu-u-um I understand," Pankrat answered, understanding nothing. He swayed on his feet and growled.

"No, listen, wake up, Pankrat" said the zoologist, poking Pankrat lightly in the ribs, which brought a frightened look into the watchman's face and a shade of intelligence into his eyes. "I locked the study," continued Persikov. "Don't go in to clean up before I return. Do you understand me?"

"Yes, sir-r," gurgled Pankrat.

"Excellent, now go back to sleep."

Pankrat turned, disappeared behind the door and immediately tumbled back into bed, while the professor began to dress in the vestibule. He put on his gray summer coat and soft felt hat. Then, recalling the picture in the microscope, he stared at his goloshes for many seconds, as if he had never seen them before. Then he put on the left golosh and tried to put the right one over it, but it would not go on.

"What a fantastic accident, his calling me," said the scientist, "or I should never have noticed it. But what does it promise? . . . Why the devil alone knows what it can lead to! . . ."

The professor grinned, squinted at his feet, removed the left golosh and put on the right one. "Good God! But one can't even imagine all the consequences . . ." The professor contemptuously kicked away the left golosh which irritated him by refusing to fit over the right one, and went to the door in one golosh. He dropped his handkerchief and walked out, slamming the heavy door.

The scientist did not meet a single soul all the way to the cathedral. There the professor lifted up his face and gaped at the golden cupola. The sun was gaily licking it from one side.

"How is it I have never seen it before, such a strange coinci-

dence? Damn it, what a fool," the professor bent down and fell into deep thought looking at his variously shod feet. "Hm . . . what's to be done now? A pity to throw it away. I'll have to carry it." He removed the golosh and carried it squeamishly in his hand.

An ancient little car with three passengers turned the corner from Prechistenka. There were two tipsy men in it, and a garishly painted woman sitting on their knees, in silk pyjamas of the latest, 1928 style.

"Hey daddy!" she cried in a low, hoarse voice. "What dive d'you leave the other one in?"

The professor looked at them sternly above his glasses and instantly forgot their existence.

The facts of the situation were as follows. When the professor brought the inspired eye of genius to the eye-piece of the microscope, he noticed for the first time in his life the presence of a particularly thick and vivid ray in the multi-colored whorl. This ray was bright red and emerged from the whorl in a little sharp point, like a needle.

It was simply a stroke of bad luck that this ray happened to arrest the expert eye of the virtuoso for several seconds.

Within this ray, the professor caught sight of something that was a thousand times more significant than the ray itself, that fragile ac-

cidental by-product of the movement of the microscope's lens and mirror. Because his assistant had called the professor away, the amoebas remained for an hour and a half subjected to the action of this ray, and the results were these: while the granular amoebas outside the ray lay about limp and helpless, strange phenomena were taking place within the area illuminated by the tiny red dagger. The red strip teemed with life. The gray amoebas, stretching out their pseudopods, strove with all their might toward the red strip, and reaching it, revived as by a miracle. Some force seemed to infuse them with living energy. They swarmed in flocks and fought each other for a place under the ray. Within it went on a frenzied (no other word can properly describe it) process of multiplication. Defying all the laws which Persikov knew as his own five fingers, the amoebas were budding before his eyes with lightning speed. They split apart within the ray, and two seconds later each part became a new, fresh organism. In a few instants these organisms reached their full growth and maturity, merely to produce new generations in their turn. The red strip, and then the entire disc quickly became overcrowded, and the inevitable struggle began. The newborn amoebas furiously attacked one another, tearing their victims to shreds and

gobbling them. Among the newly born lay the tattered corpses of those which had fallen in the battle for survival. Victory went to the best and the strongest. And these best ones were terrifying. To begin with, they were approximately twice the size of ordinary amoebas. Secondly, they were distinguished by extraordinary viciousness and mobility. Their movements were rapid, their pseudopods much longer than those of the normal amoeba, and they used them, without exaggeration, as an octopus uses its arms.

On the following evening, the professor, drawn and pale, studied the new generation of amoebas. He had not eaten all day, and kept himself going only by smoking thick cigarettes which he rolled for himself one after the other. On the third day he went on to the prime source—the scarlet ray.

The gas hissed quietly in the burner, the traffic swished and clattered on the pavement outside, and the professor, poisoned by his hundredth cigarette threw himself back in his revolving chair.

"Yes. Everything is clear now. They were revived by the ray. It is a new ray, never studied, never discovered by anyone. The first thing to be done is to find out whether it is produced only by electric light, or by the sun as well," Persikov muttered to himself.

In the course of the next night he had the answer. He caught three rays in three microscopes, but had obtained none from the sun. And he said to himself:

"We must conclude that it does not exist in the sun's spectrum . . . hmm . . . in short, we must conclude that it can be obtained only from electric light." He looked lovingly at the frosted lamp above him, spent some time in inspired meditation, and then invited Ivanov into his study. He told him the entire story and showed him the amoebas.

Assistant Professor Ivanov was astounded, totally crushed. Damnation, how was it that such a simple thing as this slender arrow had never been noticed before?! By anyone? Why, even by himself?

"But just look, Vladimir Ipatyich!" cried Ivanov, his horrified eye glued to the eye-piece. "Look what is going on! They're growing before my eyes . . . Look, look . . ."

"I have been observing them for three days," Persikov answered ecstatically.

A conversation ensued between the two scientists, the results of which may be summed up as follows: the assistant professor undertook to construct a chamber with the aid of lenses and mirrors which would produce a larger ray, and outside the microscope. Ivanov hoped—indeed, he was en-

tirely confident—that it would be quite simple. He would obtain the ray, Vladimir Ipatyich need not doubt it. And here there was a slight pause.

"When I publish my work, Pyotr Stepanovich, I shall indicate that the chambers were constructed by you," Persikov put in, feeling that the pause needed to be resolved.

"Oh, that's unimportant . . . However, of course . . ."

And so the pause was instantly eliminated. From that moment on, the ray utterly absorbed Ivanov as well. While Persikov wore himself out sitting all day and half the night over the microscope, Ivanov puttered in the physics laboratory, which gleamed with lights, combining lenses and mirrors. He was assisted by a mechanic.

After a request to the Commissariat of Education, Persikov received from Germany three parcels, containing mirrors and an assortment of polished lenses, bi-convex, bi-concave and even convex-concave. In the end, Ivanov constructed the chamber and had indeed captured the scarlet ray in it. And in all justice, it was an expert job: the ray was thick and rich, almost four centimeters in diameter, sharp and powerful.

On the first of June the chamber was installed in Persikov's room and he avidly began to experiment with frog roe, exposing

it to the ray. The experiments produced staggering results. Within two days, thousands of tadpoles hatched from the roe. And it took only a day before the tadpoles developed into frogs, but so vicious and greedy that one half of them immediately devoured the other. And the survivors began without delay and without regard for time to spawn, so that before another two days were gone, they had produced a new generation, this time without the aid of the ray and in countless multitudes. The scientist's office became the scene of something unimaginable: the tadpoles crawled off everywhere throughout the Institute. From the terraria, from the floor, from every nook and cranny came loud choruses as from a bog. Pankrat, who had always been afraid of Persikov was now inspired with a single feeling toward him—mortal terror. After a week the scientist himself began to feel that his mind was reeling. The Institute reeked of ether and Prussic acid, and Pankrat, who had thoughtlessly removed his mask, had barely escaped poisoning. The teeming swamp population was finally exterminated with the aid of poisons, and the rooms and offices were thoroughly aired.

And Persikov said to Ivanov:

"You know, Pyotr Stepanovich, the ray's effect on the deutero-plasm and the ovum is quite remarkable."

Ivanov, ordinarily a cool and reserved gentleman, interrupted the professor in an unwontedly heated tone:

"Vladimir Ipatyich, why talk about petty details, about deutero-plasm? Let's be frank—you have discovered something unprecedented!" Then, obviously at the cost of great effort, Ivanov brought himself to conclude: "Professor Persikov, you have discovered the ray of life!"

A faint color suffused Persikov's pale, unshaven cheeks.

"Now, now, now . . ." he muttered.

But Ivanov continued:

"Why, you will gain such a name . . . It makes my head spin. Do you understand," he went on passionately, "Vladimir Ipatyich, the heroes of H. G. Wells are nothing compared to you . . . Why, take a look at this," Ivanov picked up a dead frog of incredible size with a bloated belly from the glass-topped table and held it up by the leg. Even in death its face preserved an expression of utter malevolence. "But this is monstrous!"

God knows how it happened, whether through Ivanov's indiscretion, or because sensational news transmits itself somehow over the air, but everybody in gigantic, seething Moscow suddenly began to speak about Professor Persikov and his ray. At first this

talk was haphazard and extremely vague. The news of the miraculous discovery hopped through the gleaming capital like a wounded bird, now vanishing, now fluttering up again, until the middle of July, when a short item about the ray appeared on the twentieth page of the newspaper *Izvestia* under the heading of "News of Science and Technology." The item stated merely that a well-known professor of the Fourth State University had invented a ray which greatly stimulated the vital processes of lower organism, and that this ray required further study and verification. The name was, naturally, misspelled and turned into "Pevsikov."

Alas, the misspelled name did not save the professor from the flow of events, which began on the very next day, immediately upsetting the entire course of his life.

After a preliminary knock on the door, Pankrat entered the office and handed Persikov a magnificent satin-smooth calling card.

"He's out there," Pankrat added timidly.

The card bore the following legend, printed in exquisite type:

"ALFRED ARKADIEVICH
BRONSKY

"Contributor to the Moscow journals *Red Spark*, *Red Pepper*, and *Red Projector*, and the newspaper *Red Evening Moscow*."

"Send him to the devil," Persi-

kov said in a monotone and threw the card under the table.

Pankrat turned and walked out. Five minutes later he came back with a suffering face and a second copy of the same card.

"Are you playing a joke on me?" Persikov croaked and looked terrifying.

"The gentleman's from the GPU, they say . . ." Pankrat answered, paling.

Persikov seized the card, almost tearing it in half. On the card, in curly handwriting, there was a message: "I beg sincerely and apologize, most esteemed professor, to receive me for three minutes in connection with a public matter of the press, and contributor to the satirical journal *The Red Raven*, publ. by the GPU."

"Call him in," said Persikov and gasped for breath.

A young man with a smoothly shaven, oily face popped up immediately from behind Pankrat's back. The face, with its permanently raised eyebrows, was like a toy Chinaman's. The little agate eyes never met the eyes of anyone their owner spoke to. The young man was dressed immaculately and in the latest fashion: a long narrow jacket down to the knees, the widest bell-shaped trousers, and unnaturally wide patent leather shoes with toes like hooves. In his hands the young man held a cane, a hat with a sharply pointed crown, and a notebook.

"What is it you wish?" asked Persikov in a voice which made Pankrat retire behind the door at once. "You were told I am busy."

"A thousand apologies, my most esteemed professor," the young man began in a thin, high-pitched voice, "for bursting in upon you and taking up your precious time, but the news of your world-shaking discovery, which has re-echoed throughout the world, compels our journal to beg you for whatever explanations . . ."

"What kind of explanations throughout the world?" Persikov squeaked in a falsetto, turning yellow. "I am not obliged to give you any explanations . . . I am busy . . . terribly busy."

"But what is it you are working on?" the young man asked in sugary tones, and made a notation in his book.

"Oh, I . . . why do you ask? Do you intend to publish something?"

"Yes," answered the young man and began to scribble furiously in his notebook.

"To begin with, I have no intention of publishing anything until I complete my work . . . and particularly in those sheets of yours . . . Secondly, how do you know all this? . . ." and Persikov suddenly felt he was losing ground.

"Is it true that you invented a ray of new life?"

"What new life?" the professor

snapped back. "What kind of nonsense are you babbling? The ray I am working on is still far from being fully investigated, and, generally, nothing is known about it as yet! It is possible that it may stimulate the vital processes of protoplasm . . ."

"How much? How many times?" hurriedly inquired the young man.

Persikov was completely unnerved. "What kind of stupid questions are these? . . . Suppose I say, oh, a thousand times!"

A gloating, predatory spark flashed through the beady eyes of the visitor.

"It produces giant organisms?"

"Nothing of the sort! Well, it is true that the organisms I obtained were larger than normal . . . Well, they do possess certain new characteristics. But the important thing is not the size, but the incredible speed of reproduction," Persikov allowed the words to slip out to his misfortune, and was immediately appalled. The young man had covered a whole page with his writing.

"But don't write!" the desperate Persikov pleaded hoarsely, already feeling that he was entirely in the young man's hands.

"Is it true that you can obtain two million tadpoles from frog roe within two days?"

"What quantity of roe?" Persikov shouted, infuriated again. "Have you ever seen a grain of roe?"

"From half a pound?" the young man asked, undaunted.

Persikov turned purple.

"Who measures it like that? Damn it! What are you talking about? Of course, if you take half a pound of frog roe, then . . ."

Diamonds sparkled in the young man's eyes and he covered another page in a single swoop.

"Is it true that this will cause a world-wide revolution in stock-breeding?"

"What kind of a blasted newspaper question is that?" howled Persikov.

"Your photograph, professor, I beg most urgently," the young man said, closing his notebook smartly.

"What? My photograph? To go with that rot you've scribbled there? No, no, and no . . ."

"Even an old one. We shall return it instantly."

"Pankrat!" the professor shouted in a rage.

"With my compliments," the young man said and disappeared.

Instead of Pankrat, Persikov heard the strange rhythmic creaking of some machine behind the door, a metal tapping on the floor, and a man of extraordinary bulk appeared in his study. He was dressed in a blouse and trousers made of blanket material. His left, mechanical leg clacked and rattled, and in his hands he held a briefcase. His shaven round face presented an amiable smile. He bowed to the professor in military

fashion and straightened up, which caused his leg to snap like a spring. Persikov went numb.

"Mr. Professor," the stranger began in a pleasant, slightly husky voice. "Forgive an ordinary mortal who ventured to invade your privacy."

"Are you a reporter?" asked Persikov. "Pankrat!!"

"By no means, sir," replied the fat man. "Permit me to introduce myself: sea captain and contributor to the newspaper *News of Industry*, published by the Council of People's Commissars."

"Pankrat!!" Persikov screamed hysterically. At this moment the telephone in the corner flashed a red signal and rang softly. "Pankrat!" repeated the professor. "Hello, I'm listening."

"*Verzeihen sie, bitte, Herr Professor,*" the telephone croaked in German, "*dass ich store. Ich bin ein Mitarbeiter des Berliner Tageblatts . . .*"

"Pankrat!" the professor yelled into the receiver.

In the meantime, the bell at the front entrance of the Institute was ringing incessantly.

"Shocking murder on Bronny Street!!" howled unnatural hoarse voices diving in and out among the stream of wheels and flashing headlights on the warm pavement. "Shocking outbreak of chicken plague in the yard of the widowed deaconess Drozdova with her por-

trait! . . . Shocking discovery of Professor Persikov's life ray!!"

Persikov recoiled so violently that he nearly fell under the wheels of a car and snatched a newspaper.

"Three kopeks, citizen!" shrieked the newsboy, and, squeezing himself into the thick of the crowd on the sidewalk, he howled again: "*Red Evening Paper*, discovery of X-ray!!!"

The stunned Persikov opened the newspaper and leaned against a lamppost. From a smudged frame in the upper left corner of the second page there stared at him a bald-headed man with wild, unseeing eyes and a drooping jaw—the fruit of the artistic endeavors of Alfred Bronsky, with the caption: "V. I. Persikov, discoverer of the mysterious red ray." The article below it, under the heading, "World Riddle," began with the following words:

"'Sit down, please,' the venerable scientist Persikov said to us affably . . ."

The article was signed with a flourish, "Alfred Bronsky (Alonso)."

A greenish light flared up over the roof of the university. The fiery words, "SPEAKING NEWS-PAPER," flashed in the sky, and Mokhovaya was instantly packed with a milling crowd.

"'Sit down, please!!!" the loudspeaker on the roof howled suddenly in a most repulsive high-

pitched voice, an exact replica of the voice of Alfred Bronsky, magnified a thousandfold, "the venerable scientist Persikov said to us affably! 'I have long desired to acquaint the proletariat of Moscow with the results of my discovery'."

A quiet mechanical creaking was heard behind Persikov's back and someone tugged at his sleeve. Turning around, he saw the round yellow face of the owner of the mechanical leg. The man's eyes were moist with tears and his lips trembled.

"You refused to acquaint me with the results of your astonishing discovery, Professor," he said dolefully, with a deep sigh. "Good-bye to my two smackers."

He looked gloomily at the roof of the university, where the invisible Alfred was ranting in the black maw of the speaker. For some reason Persikov was suddenly sorry for the fat man.

"I never said any sit down please to him!" he muttered, angrily catching the words from the sky. "He is simply a brazen scoundrel of extraordinary proportions! Forgive me, please, but you understand—when you are working and people break in . . . I don't mean you, of course . . ."

"Perhaps, sir, you would give me at least a description of your chamber?" the mechanical man begged humbly and mournfully. "After all, it's all the same to you now . . ."

"Inside of three days, such multitudes of tadpoles hatch out of half a pound of roe that it's impossible to count them," roared the invisible man in the loudspeaker.

"The scoundrel! Well?" Persikov hissed to the mechanical man, trembling with indignation. "What do you say to that? Why, I shall complain about him!"

"Outrageous," agreed the fat man.

A dazzling violet ray struck the professor's eyes and everything around flared up—the lamppost, a strip of tiled pavement, a yellow wall, curious faces.

"That's for you, professor," the fat man whispered ecstatically and hung himself on to the professor's sleeve like a lead weight. Something clicked rapidly in the air.

"To the devil with all of them!" Persikov exclaimed hopelessly, tearing through the crowd with his ballast. "Hey, taxi! To Prechistenska!"

The dilapidated old car, vintage 1924, gurgled to a stop and the professor began to climb into it, trying to shake off the fat man.

"You crowd me," he hissed, covering his face with his fists against the violet light.

"Did you read it?! What are they saying? . . . Professor Persikov and his children were found with their throats slit on Little Bronnaya! . . ." voices shouted in the crowd.

"I have no children, the sons of bitches," Persikov screamed and suddenly found himself in the focus of a black camera, which was shooting him in profile with an open mouth and furious eyes.

In a small provincial town, formerly called Troitsk and currently Steklovsk, in the Steklov District of the Kostroma Province, a woman in a kerchief and a gray dress with pink cotton posies came out onto the steps of a little house on the former Cathedral, and now Personal Street, and burst into tears. This woman, the widow of the former deacon Drozdov of the former cathedral, sobbed so loudly that soon another woman's head, in a downy woolen shawl, appeared in the window of the house across the street and called out:

"What is it, Stepanovna? Any more?"

"The seventeenth!" the former Drozdova answered, sobbing bitterly.

"Oh, dear, dear," whimpered the woman in the shawl, shaking her head. "What a misfortune. Truly, the wrath of God! Is she dead?"

"Take a look, take a look, Matrena," muttered the deaconess, sobbing loudly and deeply, "See what's happening to her!"

The gray, sagging little gate slammed to, a woman's bare feet pattered across the dusty ruts of the streets, and the deaconess, stream-

ing with tears, led Matrena to her poultry yard.

It must be said that the widow of Father Savvaty Drozdov, who had died in 1926 of anti-religious heartaches, did not lose courage, but founded a flourishing poultry business. As soon as the widow's affairs began to prosper, the government clapped such a tax upon her that her chicken-breeding activities were on the verge of coming to an end. But there were kind people. They advised the widow to inform the local authorities that she was organizing a workers' cooperative chicken farm. The membership of the cooperative consisted of Drozdova herself, her faithful servant Matreshka, and her deaf niece. The tax was immediately revoked, and the chicken business expanded and flourished. By 1928, the population of the widow's barnyard, flanked by rows of chicken coops, had increased to 250 hens; she even had some Chochin-chinas. The widow's eggs appeared in the Steklovsk market every Sunday; the widow's eggs were sold in Tambov; occasionally they were even seen in the glass showcases of the store that was formerly known as "Chickin's Cheese and Butter, Moscow."

And now a precious Brahmaputra, the seventeenth that morning and everybody's favorite, walked about the courtyard, vomiting. "Er . . . rr . . . url . . . url . . . go-go-go," the hen gurgled

and rolled her melancholy eyes to the sun as if she were seeing it for the last time. She opened her beak wide and stretched her neck to the sky. Then she began to vomit blood.

"Holy Jesus!" cried the guest, slapping herself on the thighs. "What's going on here? Never seen a chicken ailing with her stomach like a human being."

And those were the last words heard by the poor creature. She suddenly keeled over on her side, helplessly pecked the dust a few times, and turned up her eyes. Then she rolled over on her back, kicked her feet up to the sky, and remained motionless.

"Stepanovna, may I eat dirt, but I'll say your chickens got the evil eye. Who's ever seen the like of it? Why, there ain't no chicken sickness of this kind!"

"The enemies of my life!" exclaimed the deaconess to the sky. "Are they trying to drive me out of this world?"

Her words were answered by a loud crowing, after which a lean, bedraggled rooster flew out sideways from a chicken coop, like an obstreperous drunk out of a tavern. He goggled his eyes at the people, stamped furiously up and down on one spot, spread his wings like an eagle, but did not fly off anywhere. Instead, he began to run in circles around the yard. In the middle of the third circle he stopped and became sick. Then he began to cough

and wheeze, spewed bloody stains all around him, tumbled, and pointed his claws at the sun like masts. A new outburst of feminine wailing filled the courtyard, answered by anxious clucking, flapping and noisy fussing from the coops.

"Well, isn't it the evil eye?" the guest cried triumphantly. "Call Father Sergy, let him hold a service."

At six in the evening, when the sun sat low like a flat fiery face among the round faces of the young sunflowers, Father Sergy, the prior of the cathedral church, was divesting himself of his robes, having completed the service. Curious heads stuck out over the crumbling old fence and peered through the cracks. The sorrowful deaconess kissed the cross, shed copious tears on the canary-yellow, torn ruble note, and handed it to Father Sergy, in response to which he sighed and mumbled something about the Lord's wrath.

After that, the crowd in the street dispersed, and since hens retire early, nobody knew that three hens and a rooster had died all at the same moment in the coop of Drozdova's next-door neighbor. They vomited, just like the Drozdov hens, and the only difference was that their deaths took place in a locked coop, and without noise. The rooster tumbled off the perch head down and died in that position. As for the widow's poultry yard, by evening her coops were

deadly quiet—the hens lay on the floor in heaps, stiff and cold.

In the morning the town awakened, as though struck by thunder, for the affair assumed strange and monstrous proportions. By noon-time, only three hens were still alive on Personal Street—and those belonged to the last house, where the district financial inspector lived. But even they were dead by one o'clock in the afternoon. And by evening the town of Steklovsk hummed like a beehive with the dread word, "plague." Drozdova's name appeared in the local newspaper, *The Red Warrior*, in an article headed, "Can It Be Chicken Plague?" And from thence it was carried to Moscow.

Professor Persikov's life took on a strange quality, restless and disturbing. It was no longer possible to work. On the day after he had gotten rid of Alfred Bronsky, he was compelled to disconnect his office telephone at the Institute by taking the receiver off the hook. And in the evening, as he rode home by trolley along Okhotny Row, the professor beheld himself on the roof of a huge building with a black sign, *Workers' Paper*: crumbling and flickering and turning green, the professor was climbing into a taxicab, and behind him, clutching at his sleeve, lumbered a mechanical globe in a blanket. The professor on the roof, huge on the white screen, shielded himself with

his fists against a violet ray. Then a golden legend leaped out upon the screen: "Professor Persikov in a taxi, explaining his discovery to our famous reporter Captain Stepanov."

That same evening, when he returned to his rooms on the Prechistenka, the housekeeper, Marya Stepanovna, handed the zoologist seventeen slips of paper with telephone numbers that had called during his absence, along with a verbal declaration that she was plumb worn out. The professor was about to tear up the notes, when his eye caught the words, "People's Commissar of Public Health" on one of the slips.

"What is this?" the learned eccentric asked in bewilderment. "What has come over them?"

As a quarter past ten the doorbell rang. The visitor, a citizen in dazzling attire, won admission by his calling card, which stated (without name or initials), "Plenipotentiary Chief of the Trade Departments of Foreign Embassies to the Soviet Republic."

"Why doesn't he go to hell?" growled Persikov, throwing down his magnifying glass and some diagrams on the green cloth of the table. Then he said to Marya Stepanovna:

"Ask him here into my study, this plenipotentiary."

"What can I do for you?" Persikov asked in a tone that made the Chief wince. Persikov transferred

his spectacles from the bridge of his nose to his forehead, then back, and peered at his visitor, who glittered with patent leather and precious stones. In his right eye sat a monocle. "What a vile physiognomy," Persikov thought for some reason.

The guest began in a roundabout way. He begged permission to light his cigar, in consequence of which Persikov most reluctantly invited him to sit down. The guest proceeded to offer extended apologies for coming so late, "But . . . the Professor is quite impossible to catch . . . hee-hee . . . pardon . . . to find during the day." (When he laughed, the visitor sobbed like a hyena.)

"Yes, I am busy!" Persikov answered so shortly that the guest twitched again.

"Nevertheless, he permitted himself to disturb the famous scientist. Time is money, as they say . . . Is the cigar annoying the Professor?"

"Mur-mur-mur," answered Persikov.

"We understand that the Professor has discovered the ray of life?"

"In heaven's name, what life?! It's a reporter's fiction!" Persikov became more animated.

"Oh, no, hee-hee-khe . . . He understands perfectly the modesty which is the true adornment of all genuine men of science . . . But why beat about the bush? . . .

There were many communiques . . . In all the world capitals, such as Warsaw and Riga, everything is already known about the ray. Professor Persikov's name is on the lips of the whole world . . . The world follows Professor Persikov's work with bated breath . . . But everybody is aware of the difficult position of scientists in Soviet Russia. *Entre nous soit dit* . . . There are no strangers here? . . . Alas, in this country they do not know how to appreciate scientific work. And so he would like to talk things over with the Professor . . . A certain foreign state is offering, quite disinterestedly, to help Professor Persikov with his laboratory work. Why cast pearls here, as the Holy Writ says . . . The said state knows of the difficulties the Professor had to endure in 1919 and 1920, during this, hee-hee . . . revolution. Well, of course, in the strictest confidence . . . The Professor would acquaint the said state with the results of his labors, and in exchange it would finance the Professor. Take, for example, the chamber which he has constructed—it would be interesting to become acquainted with the blueprints for this chamber . . ."

At this point the visitor drew from the inner pocket of his coat a dazzlingly white bundle of notes . . .

"A trifling advance, say, five thousand rubles, can be placed at the Professor's disposal at this very

moment . . . And, of course, there is no need of a receipt . . . Indeed, the Plenipotentiary Chief would feel offended if the Professor as much as mentioned a receipt."

"Out!!!" Persikov suddenly roared so loudly that the piano in the parlor made an answering sound with its high keys.

The guest vanished so quickly that Persikov, shaken as he was with rage, began to doubt whether he had been there at all. Could it have been a hallucination?

Persikov returned to his study and his diagrams, but he was not allowed to go on with his work. The telephone flashed on again, and a female voice inquired whether the professor would like to marry an attractive and ardent widow, with a seven-room apartment. He had only hung up when the telephone rang again.

This time Persikov was somewhat abashed: a sufficiently well-known personage was calling from the Kremlin. He questioned Persikov sympathetically and at great length about his work and expressed a wish to visit the laboratory. When he left the telephone, Persikov mopped his forehead. Then he took the receiver off the hook. At that moment there was a sudden blast of trumpets overhead, followed by the shrieking of Valkyries: the director of the Woolen Fabrics Trust in the upstairs apartment had turned on his radio to

a broadcast of a Wagner concert from the Bolshoy Theatre. Over the howling and crashing which poured down from the ceiling, Persikov shouted to Marya Stepanovna that he would sue the director, that he would smash the radio, that he would leave Moscow and go to any damned corner of the world, for it was obvious that people were dead set on driving him out of there. He broke his magnifying glass and went to bed on the sofa in his study. He fell asleep to the gentle ripple of piano keys.

The surprises continued on the following day. When he arrived at the Institute, Persikov found an unknown citizen in a stylish green derby stationed at the entrance. The citizen scanned Persikov closely, but addressed no questions to him, and therefore Persikov ignored him. But in the foyer, Persikov was met by the bewildered Pankrat and a second derby, which rose to greet him courteously.

"Good morning, Citizen Professor."

"What do you wish?" Persikov asked menacingly, pulling off his coat with Pankrat's assistance. But the derby quickly pacified Persikov, whispering in the tenderest tones that the professor had no cause to be concerned. He, the derby, was there for the sole purpose of shielding the professor from any importunate visitors . . .

"Hm . . . I'll say you're well or-

ganized," Persikov mumbled, and added naively, "And what will you eat here?"

The derby smiled and explained that he would be relieved.

After that, three days went by in splendid peace. The professor had two visits from the Kremlin. His only other visitors were students who came to take their examinations. The students flunked to a man, and their faces showed that Persikov was now the object of literally superstitious dread among them.

"Go and get jobs as conductors! You aren't fit to study zoology," came the shout from the office.

"Strict, eh?" the derby asked Pankrat.

"A holy terror," answered Pankrat. "Even them that pass come out reeling, poor souls. He sweats the hide off them. They stumble out, and straight for the tavern!"

Engrossed in these minor affairs, the professor never noticed how three days flew by, but on the fourth day he was again recalled to reality. The cause of this was a thin, falsetto voice from the street.

"Vladimir Ipatievich!" the voice shrilled from Herzen Street into the open window of the office. The voice was in luck. Persikov was exhausted from all the events of the recent days. At the moment, he was resting in his armchair, staring weakly out of his red-rimmed eyes and smoking. He was too worn out to work any more. Hence it was

even with some curiosity that he glanced out of the window and saw Alfred Bronsky on the sidewalk below. The professor immediately recognized the titled owner of the satiny calling card by his pointed hat and his note-pad. Bronsky tenderly and deferentially bowed to the window.

"Oh, it's you?" the professor asked. The ever-present derby in the street instantly cocked an ear to Bronsky. A most disarming smile bloomed on the latter's face.

"Just a couple of minutes, dear Professor," Bronsky said, straining his voice from the sidewalk. "Only one tiny question, a purely zoological one. Will you permit me?"

"Go on," Persikov answered briefly and ironically, and thought to himself: "There is, after all, something American in this ras-cal."

"What will you say as for the hens, dear Professor?" cried Bronsky, folding his hands into a trumpet.

Persikov was non-plussed. He sat down on the window still, then climbed down, pressed a button and shouted, poking his finger in the direction of the window:

"Pankrat let in that fellow from the sidewalk."

When Bronsky appeared in the office, Persikov stretched his favor to the extent of barking out, "Sit down!"

And Bronsky, with a rapt smile, sat down on the revolving stool.

"Explain something to me," began Persikov. "You write for those papers of yours, don't you?"

"Yes, sir," Alfred replied deferentially.

"Well, it seems incomprehensible to me. How can you write when you don't even speak correctly? What sort of expressions are these—"a couple of minutes," "as for the hens"? You probably meant, "about the hens"?

Bronsky broke into a thin, respectful giggle:

"Valentin Petrovich corrects it."

"Who's Valentin Petrovich?"

"The chief of the literary department."

"Oh, well. Let's forget your Petrovich. What was it specifically that you wanted to know about hens?"

"Everything you might tell me, Professor."

Bronsky armed himself with a pencil. Triumphant sparks flashed in Persikov's eyes.

"You needn't have applied to me, I am not a specialist on the feathered kingdom. You had best speak to Emelyan Ivanovich Portugalov, of the First University. I myself know very little . . ."

Bronsky continued his adoring smile, as if to indicate that he understood the dear professor's joke. "Joke: little," he jotted in his notebook.

"However, if you are interested, very well. Hens, or Pectinates . . . genus, Birds; order, *Gallinae*.

Pheasant family . . ." Persikov recited loudly, looking, not at Bronsky, but somewhere beyond him, where a thousand people were presumably listening . . . "Pheasant family . . . *Phasianidae*. Birds with a fleshy comb and two lobes under the lower jaw . . . hm . . . sometimes, of course, there is only one in the center of the chin . . . What else? Wings, short and rounded . . . Tail, medium, somewhat serrated, the middle feathers crescent-shaped . . . Pankrat . . . bring me Model No. 705 from the model cabinet—a cock in cross section . . . But wait, you don't need this? Never mind, Pankrat . . . I repeat, I am not a specialist, go to Portugalov. Well, I personally am acquainted with six species of wild hens . . . hm . . . Portugalov knows more . . . In India and the Malay Archipelago. For example, the Banki rooster, found among the foothills of the Himalayas, throughout India, in Assam and Burma . . . Then there is the swallow-tailed rooster or *Gallus Varius* of Lombok, Sumbawa and Flores. On the island of Java there is a remarkable rooster, *Gallus Eneus*. In southeast India, I can commend to you the very beautiful *Zonnerat* rooster. And in Ceylon we encounter the Stanley rooster, not found anywhere else."

Bronsky sat with bulging eyes, scribbling furiously.

"Is there anything else I can tell you?"

"I should like to know something about chicken diseases," Alfred whispered meekly.

"Hm, I am not a specialist . . . ask Portugalov . . . Well, there are intestinal worms, flukes, scab mites, red mange, chicken mites, poultry lice or *Mallophaga*, fleas, chicken cholera, croupous-diphtheritic inflammation of the mucous membranes . . . Pneumonomycosis, tuberculosis, chicken mange . . . there are all sorts of diseases . . . (sparks flashed in Perikov's eyes) . . . There can be poisoning, tumors, rickets, jaundice, rheumatism, the *Achorion Schoenleinii* fungus . . . a most interesting disease. It produces little spots on the comb resembling mold . . ."

Bronsky mopped his forehead with a brightly colored handkerchief.

"And what do you think, Professor, is the cause of the present catastrophe?"

"What catastrophe?"

"Why, haven't you read, Professor?" Bronsky cried with astonishment and pulled out a crumpled page of the *Izvestia* from his briefcase.

"I don't read newspapers," answered Persikov, frowning.

"But why, Professor?" Alfred asked tenderly.

"Because they write nonsense," Persikov answered without a moment's hesitation.

"But what about this, Profes-

sor?" Bronsky whispered mildly, unfolding the newspaper.

"What is this?" asked Persikov, and even rose a little from his chair. The sparks were now flashing in Bronsky's eyes. With a pointed, lacquered nail he underlined a huge headline across the entire page, "CHICKEN PLAGUE IN THE REPUBLIC."

"What?" Persikov asked, moving his glasses up to his forehead.

The white headlights of buses and the green lights of trolleys circled up and down Theatre Square. Over the former Muir and Murrlis, above the tenth floor built up over it, a varicolored electric woman jumped up and down, throwing out letters of many colors, which added up to the words, "WORKERS' CREDIT." In the square opposite the Bolshoy Theatre, around the glittering fountain which sent up multicolored sprays at night, a crowd milled and rumbled. And over the Bolshoy, a giant loudspeaker boomed:

"Anti-chicken vaccinations at the Lefort Veterinary Institute bring excellent results. The number of chicken deaths for the date decline by half . . ."

Then the loudspeaker changed its timbre, something growled in it died out and went on again, and the speaker complained in a deep basso:

"Special Commission set up to combat chicken plague, consisting

of the People's Commissar of Public Health, the People's Commissar of Agriculture, the Chief of Livestock Breeding, Comrade Fowlin-Hamsky, the Professors Persikov and Portugalov . . . and Comrade Rabinovich! . . . New attempts at intervention . . ." the speaker laughed and wept like a hyena, "in connection with the chicken plague!"

Theatre Lane, Neglinny Prospect and the Lubyanka flared with white and violet streaks, sprayed shafts of light, howled with horns and sirens and whirled up clouds of dust. Crowds of people pressed around the walls covered with large posters lit by garish red reflectors.

"Under threat of the most severe penalties, the population is forbidden to consume chicken meat and eggs. Private dealers who attempt to sell these in the markets will be subject to criminal prosecution and confiscation of their entire property. All citizens who own eggs must promptly turn them in at the police precincts."

On the roof of *The Workers' Gazette* chickens were piled sky-high upon the screen, and greenish firemen, sparkling and quivering, poured kerosene on them from long hoses, and fiery words leaped out: "Burning of chicken corpses on the Khodynka."

Among the madly blazing show-windows of stores open till three in the morning (with two breaks for

lunch and supper), gaped the blind holes of windows boarded up under their signs, "Egg Store. Quality Guaranteed." Very often, screaming alarmingly as they overtook the lumbering buses, cars marked, "Moscow Health Department—First Aid," sped hissing past the traffic policemen.

"Another one has gone and stuffed himself on rotten eggs," the crowd rustled.

Over the theatre of the late Vsevolod Meyerhold, who died, as everybody knows, in 1927 during the staging of Pushkin's *Boris Godunov*, when a platform with naked boyars collapsed over his head, there flashed a moving varicolored sign announcing a new play, *Chicken Croak*, written by the dramatist Erendorg and produced by Meyerhold's disciple, Honored Director of the Republic Kukhterman. Next door, at the Aquarium restaurant, scintillating with electric advertisements and bare female flesh, and resounding with wild applause, the diners watched, amidst the greenery of the stage, a review by the writer Lazier, entitled, *The Hen's Children*. And down the Tverskaya marched a procession of circus donkeys, with lanterns suspended from their heads, and gleaming signs announcing the re-opening of Rostand's *Chanticleer* at the Korsh Theatre.

Newsboys roared and howled among the wheels of motorcars:

"Shocking discovery in a cave! Poland preparing for shocking war! Shocking experiments of Professor Persikov!!"

Looking at no one, noticing no one, unresponsive to the nudging and the soft and tender invitations of prostitutes, Persikov, inspired and solitary, crowned with sudden fame, was making his way along the Mokhovaya toward the fiery clock at the Manege. Here, seeing no one, engrossed in his thoughts, he collided with a strange, old-fashioned man, painfully stubbing his fingers against the holster of a revolver attached to the man's belt.

"Oh, damn!" squeaked Persikov. "Sorry."

"Sorry," answered the stranger in an unpleasant voice, and they disentangled themselves in the dense human stream. Turning to the Prechistenka, the professor instantly forgot the encounter.

We do not know whether it was due to the success of the Lefort veterinary inoculations, the skill of the Samara roadblock units, the effect of the stringent measures applied to the egg merchants, or the efficient work of the Extraordinary Commission in Moscow, but two weeks after Persikov's last interview with Alfred, the chicken crisis in the Union of Soviet Republics was already a thing of the past.

Having reached Archangel and Syumkin Village in the north, the plague stopped of itself, for the good reason that it could go no further; as everybody knows, there are no hens in the White Sea. It also halted at Valdivostok, beyond which there is only ocean. In the far south, it disappeared, petering out somewhere in the parched expanses of Ordubad, Dzhusfa and Karabulak. And in the west it halted miraculously exactly on the Polish and Rumanian borders. The foreign press avidly and noisily discussed the unprecedented calamity, while the government of the Soviet Republics, without undue noise, worked tirelessly to set things right. The Extraordinary Commission to Fight the Chicken Plague changed its name to Extraordinary Commission for the Revival and Reestablishment of Chicken-Breeding in the Republic and was augmented by a new Extraordinary Committee of Three, consisting of sixteen members. A "Goodpoul" office was set up, with Persikov and Portugalov as honorary vice-chairmen. The newspapers carried their portraits, over articles with such titles as "Mass Purchase of Eggs Abroad" and "Mister Hughes Wants to Torpedo the Egg Campaign."

Professor Persikov had worked himself to the point of exhaustion. For three weeks the chicken events disrupted his entire routine and doubled his duties and burdens.

Every evening he had to attend conferences of chicken commissions, and from time to time he was obliged to endure long interviews either with Alfred Bronsky or the mechanical fat man. He had to work with Professor Portugalov and Assistant Professors Ivanov and Bornhart, dissecting and microscoping chickens in search of the plague bacillus. He even hastily whipped out a pamphlet in three evenings, "On the Changes in Chicken Kidneys as a Result of the Plague."

But Persikov worked in the chicken field without real enthusiasm, and understandably so: his mind was elsewhere—grappling with the most important, the central problem, from which he had been diverted by the chicken catastrophe—the problem of the red ray.

By the end of July, the frenzy subsided a little. The work of the renamed commission settled into a normal groove, and Persikov returned to his interrupted work. The microscopes were loaded with new preparations, and fish and frog roe hatched in the chamber under the ray with fantastic speed. Specially ordered glass was brought by airplane from Konigsberg, and during the last days of July, mechanics working under Ivanov's supervision constructed two large new chambers, in which the ray attained the width of a cigarette pack at its source, and, at

the widest point, measured a full meter. Persikov merrily rubbed his hands and began to prepare for some mysterious and complicated experiments. To begin with, he spoke by telephone with the People's Commissar of Education, and the receiver croaked out the warmest assurances of every possible assistance and cooperation. After that, Persikov telephoned Comrade Fowlin-Hamsky, the director of the Livestock-Breeding Department of the Supreme Commission. Fowlin-Hamsky gave Persikov his most amiable attention. The matter involved a large order abroad for Professor Persikov. Hamsky said into the telephone that he would immediately wire Berlin and New York. After this there was a call from the Kremlin, to inquire how Persikov's work was progressing, and an important and affable voice asked whether Persikov would like to have a car placed at his disposal.

"No, thank you. I prefer the trolley," said Persikov.

"But why?" the mysterious voice asked.

"It is faster," Persikov replied.

Another week went by, and Persikov, withdrawing still further from the subsiding chicken problem, devoted himself completely to the study of the ray. From the many sleepless nights and overwork, his head felt light, as though transparent and weightless. The red rings never left his

eyes now, and Persikov was spending almost every night at the Institute. Once he left his zoological refuge to deliver a lecture at the Tsekubu Hall on Prechistenka about his ray and its effect on the egg cell. It was a colossal triumph for the eccentric zoologist. On the stage, on a glass-topped table next to the lectern, a moist gray frog the size of a cat sat on a platter, breathing heavily. Afterwards, the Tsekubu chairman dragged Persikov by main force back onto the stage to bow to the audience. Persikov bowed irritably. Hundreds of yellow faces and white shirt fronts wavered in the mist before him, and suddenly the yellow holster of a revolver flashed and disappeared somewhere behind a column. Persikov vaguely noticed it and forgot it at once.

It was a very sunny August day. It interfered with the professor, and therefore the shades were drawn. A reflector on a flexible stand cast a sharp beam of light on the glass table, piled with instruments and slides. Leaning in exhaustion against the backrest of the revolving armchair, Persikov smoked. His eyes, dead-tired but pleased, gazed through the ribbons of smoke at the slightly open door of the chamber, where the red sheaf of his ray lay quietly, exuding its faint warmth into the already close and tainted air of the room.

Someone knocked at the door.

"Yes?" asked Persikov.

The door creaked softly, admitting Pankrat. With arms held stiffly at his sides and blanching with awe before the supernatural being, he said:

"Mr. Professor, there's someone asking for you out there, his name is Destin."

The semblance of a smile fitted across the scientist's cheeks. He narrowed his eyes and said:

"That's interesting. But I am busy."

"They say they have an official paper from the Kremlin."

"Destiny with a paper? A rare combination," said Persikov, and added, "Oh, well, bring him in!"

"Yes, sir," said Pankrat and slipped out of the door like an eel.

A moment later the door creaked again and a man appeared on the threshold. Persikov's chair squeaked as he turned, and he peered at the visitor over his shoulder, above his glasses. Persikov was too remote from life—he was not interested in it—but even Persikov was struck by the predominant, the salient characteristic of the stranger: he was peculiarly old-fashioned.

The visitor wore a double-breasted leather coat, olive trousers, puttees and gaiters, and a huge Mauser pistol of antiquated construction at his hip, in a cracked yellow holster. The visitor's face produced the same im-

pression of Persikov as it did on everyone else—an extremely unpleasant one. His little eyes looked out at the world with astonishment, but at the same time with assurance; there was something brash and aggressive even in the short legs and the flat feet. His face was closely shaven, almost bluish. Persikov frowned. He asked:

"You have a paper? Where is it?"

The visitor was obviously overwhelmed by what he saw. Ordinarily, he had little capacity for embarrassment, but here he was taken aback. Judging from his little eyes, he was daunted most of all by the twelve-tier bookcase, reaching to the ceiling and crammed with books. And then, of course, there were the chambers, in which—as though in hell—there flickered the scarlet ray, diffused and magnified by the glass walls.

The visitor stared at the professor and sparks of deference leaped through the usual assurance of his eyes. He offered no paper, but said:

"I am Alexander Semyonovich Destin!"

"Yes? And?"

"I was appointed manager of the model Soviet farm, the Scarlet Ray Sovkhoz," explained the guest.

"And?"

"And so I've come Comrade, with a secret memorandum."

"Interesting. But make it short, please."

The visitor unbuttoned his coat and pulled out an order, printed on excellent thick paper. He held it out to Persikov. Then, without waiting for an invitation, he seated himself on a revolving stool.

"Don't push the table," Persikov said with hatred.

The visitor turned a frightened glance at the table, at the far end of which, in a moist dark aperture, a pair of eyes gleamed lifelessly like emeralds.

The moment Persikov read the paper, he rose from the chair and rushed to the telephone. A few seconds later he was speaking hurriedly and with extreme irritation.

"Excuse me . . . I cannot understand . . . How can this be? I . . . without my consent or advice . . . But heaven knows what he can do with it!"

The stranger turned on his stool, extremely offended.

"Pardon me," he began, "I am the manag . . ."

But Persikov waved him off with his hooked forefinger.

"Excuse me, I cannot understand it . . . And, finally, I categorically protest. I shall not sanction any experiments with eggs . . . Before I try them myself . . ."

Something squawked and clicked in the receiver, and even from a distance it was clear that the voice in the receiver, patient and condescending, was speaking

to a small child. The conversation ended with Persikov, beet-red, violently slamming down the receiver and crying past it to the wall:

"I wash my hands!"

He returned to the table, took the paper, read it once from top to bottom and turned to his visitor.

"Very well . . . I submit. It's none of my business. Besides, I am not interested."

The visitor was not so much offended as amazed.

"But pardon me, Comrade . . ." he began, "but you are . . . ?"

"Comrade . . . Comrade . . . Is that all you can say?" Persikov broke in sullenly and stopped.

"Well!!" Destin's face seemed to say.

"Pard . . ."

"Now, if you please," interrupted Persikov. "This is the arc bulb. With its aid you obtain, by manipulating the ocular," Persikov snapped the lid of the chamber which looked like a photographic camera, "a cluster of rays which you can gather by moving object-lense No. 1 here . . . and mirror No. 2," Persikov turned off the ray, then turned it on again on the floor of the asbestos chamber. "And on the floor you may arrange whatever you please and proceed to experiment. Extremely simple, don't you think?"

Persikov meant to express irony and contempt, but his visitor never noticed it, peering into the chamber with intent, little eyes.

"But I warn you," continued Persikov. "Keep your hands out of the ray, because, according to my observations, it causes growth of the epithelium . . . and, unfortunately, I have not yet established whether it is malignant or not."

The visitor quickly hid his hands behind his back.

"And how do you manage, Professor?"

"You can buy rubber gloves at Schwab's on Kuznetsky Bridge," the professor answered irritably. "I am not obliged to worry about that."

Persikov suddenly looked up at the visitor, as though examining him through a magnifying glass:

"Where do you come from? And generally . . . why you? . . ."

Destin was finally offended in earnest.

"Pard . . ."

"After all, one must know what it is all about! . . . Why have you latched on to this ray? . . ."

"Because it's a matter of utmost importance . . ."

"Ah. The utmost? In that case . . . Pankrat!"

But when Pankrat appeared, he said:

"Wait, I must think."

And Pankrat vanished obediently.

"I cannot understand one thing," said Persikov. "Why this haste and secrecy?"

"You get me muddled, Profes-

sor," answered Destin. "You know that all the chickens have died out—to the last one?"

"And what about it?" shrieked Persikov. "Do you intend to revive them instantly? Is that it? And why with the aid of a ray that has not yet been studied sufficiently?"

"Comrade Profesor," replied Destin. "I must say, you mix me up. I tell you, we must reestablish chicken-breeding, because they're writing all kinds of rot about us abroad. So."

"I'd like to know whose idea it was to breed chickens from eggs . . ."

"Mine," answered Destin.

"Uhum . . . I see . . . And why, if I may know? Where did you learn about the properties of the ray?"

"I attended your lecture."

"I haven't done anything with eggs as yet! . . . I am only preparing to!"

"It'll work, I swear it will," Destin cried suddenly with conviction and feeling. "Your ray is so famous, you can hatch elephants with it, let alone chickens."

"Tell me," said Persikov. "You are not a zoologist? No? Too bad . . . You'd make a very bold experimenter . . . Yes . . . But you are risking to end up . . . with failure . . . And you are taking away my time . . ."

"We shall return your chambers."

"When?"

"As soon as I breed the first batch."

"You speak with such confidence! Very well. Pankrat!"

"I have men with me," said Destin. "And guards . . ."

By evening Persikov's office was stripped and desolate. The tables stood bare. Destin's men had carted away the three large chambers, leaving the professor only the first—his own little one, in which he had begun his first experiments.

In the August twilight, the Institute turned gray, the grayness flowed along the corridors. From the study came the sound of monotonous footsteps; without turning on the light, Persikov paced the large room, from door to window . . . It was a strange thing: on that evening an inexplicably dismal mood descended both on the people who inhabited the Institute and on the animals.

In the deep dusk the bell rang from Persikov's study. Pankrat appeared on the threshold. He beheld a strange picture. The scientist stood, lost and solitary, in the middle of the room and looked at the tables. Pankrat coughed once and stood still.

"There, Pankrat," said Persikov and pointed to the denuded table.

Pankrat was shocked. It seemed to him that the professor's eyes were tear-stained in the dusk. It was extraordinary and terrible.

"You know, my good Pankrat," continued Persikov, turning away

to the window, "my wife . . . she left me fifteen years ago and joined an operetta . . . and now it turns out she is dead . . . Such a thing, my dear Pankrat . . . They sent me a letter . . ."

The toads screamed piteously, and the twilight shrouded the professor. Pankrat, confused and anguished, stood with his hands straight down his sides, rigid with fear.

"Go, Pankrat," the professor said heavily and waved his hand. "Go to sleep now, Pankrat."

Truly, there is no season more beautiful than August in the country—say, in the Smolensk province. The summer of 1928, as we know, was of the finest, with spring rains just in time, with a full hot sun, and an excellent harvest. A man becomes better in the lap of nature. And even Alexander Semyonovich would not have seemed as unpleasant here as he had in the city. He no longer wore the obnoxious leather coat. His face was bronzed by the sun, his unbuttoned calico shirt revealed a chest overgrown with the densest black hair, his legs were clad in canvas trousers. And his eyes were calmer and kinder.

Alexander Semyonovich briskly ran down the stairs from the columned porch, over which a sign was nailed, bearing a star and the words,

THE "SCARLET RAY"
SOVKHOZ,

and went to meet the light truck which had brought him three black chambers under guard.

All day Alexander Semyonovich was busy with his assistants, in talling the chambers in the former winter garden—the Sheremetyev greenhouse . . . By evening everything was ready. A frosted white bulb glowed under the glass ceiling, the chambers were set up on bricks, and the mechanic, who had arrived with the chambers, clicked and turned the shiny knobs and lit the mysterious red ray on the asbestos floor of the black boxes.

Alexander Semyonovich bustled about, and even climbed the ladder himself to check the wiring.

On the following day the truck returned and disgorged three crates, made of excellent, smooth plywood and plastered all over with labels and warnings in white letters on black backgrounds:

"Vorsicht: Eier!"

"But why did they send so few?" wondered Alexander Semyonovich. However, he immediately applied himself to unpacking the eggs. The unpacking was done in the same greenhouse, with the participation of everyone: Alexander Semyonovich himself; his wife Manya, a woman of inordinate bulk; the one-eyed former gardener to the former Sheremetyevs, currently serving in the Sovkhoz in the universal

capacity of watchman; the guard, condemned to life in the Sovkhoz; and the general maid Dunya. This was not Moscow, and everything was simpler and friendlier here. Alexander Semyonovich directed the work, glancing lovingly at the crates.

"Easy, please," he begged the guard. "Careful. Don't you see—you've got eggs there!"

The eggs were packed exceedingly well: under the wooden lid there was a layer of wax-paper, then blotting paper, then a firm layer of wood shavings, and finally sawdust, in which the tips of the eggs gleamed whitely.

"Foreign packing," Alexander Semyonovich said admiringly, digging into the sawdust. "Not the way we do things. Manya, take care, you'll break them."

"You've gone silly, Alexander Semyonovich," answered his wife. "Imagine, such precious gold. As if I never saw eggs. Oh! . . . How large!"

"That's Europe for you," said Alexander Semyonovich, laying out the eggs on the wooden table. "What did you expect—our measly little peasant eggs?"

"I don't understand, though, why they're dirty," Alexander Semyonovich said reflectively. "Manya, look after things. Let them go on with the unpacking, I am going to telephone."

twittered in the office of the Zoological Institute. Professor Persikov ruffled his hair with his hand and went to answer.

"Yes?" he asked.

"The province calling, just a moment," a woman's voice answered through the hissing receiver.

"Yes, I am listening," Persikov said squeamishly into the black mouth of the telephone . . . Something clicked and snapped, and then a distant masculine voice anxiously spoke into the professor's ear:

"Should the eggs be washed, Professor?"

"What? What is it? What are you asking?" Persikov cried irritably. "Who is speaking?"

"From Nikolsky, Smolensk Province," the receiver answered.

"I don't know what you're talking about. Who is it?"

"Destin," the receiver said sternly.

"Destin? Oh, yes . . . it's you . . . Well, what is it?"

"Whether they should be washed . . . They sent me a shipment of chicken eggs from abroad . . ."

"Well?"

". . . they seem slimy somehow . . ."

"What nonsense . . . How can they be 'slimy'?' Well, of course, there can be a little . . . perhaps some droppings stuck to them . . ."

In the evening, the telephone

"So they shouldn't be washed?"

"Of course not. So you're all ready to load the chambers with the eggs?"

"I am," replied the receiver.

"H-m," Persikov snorted.

"So long," the receiver clicked and was silent.

"So long," Persikov mimicked with hatred. He turned to Assistant Professor Ivanov. "Just imagine, Pyotr Stepanovich . . . it is possible that the ray will produce the same effect on the deutero-plasm of the chicken egg as it did on the plasm of the amphibians. It is very possible that the hens will hatch. But neither you, nor I can say what kind of hens they will be . . . Perhaps they won't be good for anything. Perhaps they will die in a day or two. Perhaps they will be inedible?"

"Very true," agreed Ivanov.

"Can you vouch, Pyotre Stepanovich, that they will produce future generations?"

"No one can vouch for it," agreed Ivanov.

"And what brashness," Persikov whipped himself up still further. "What insolence! And I am ordered to instruct this scoundrel," Persikov pointed to the paper delivered by Destin, still lying on the instrument table. "And how can I instruct this ignoramus when I myself cannot say anything on this problem?"

"Was it impossible to refuse?" asked Ivanov.

Persikov turned livid, picked up the paper and showed it to Ivanov. The latter read it and smiled ironically.

"And then, mark this . . . I've waited for my order for two months—and not a sign of it. While this one receives the eggs instantly, and generally gets every possible cooperation."

"He won't get anywhere with it, Vladimir Ipatyich. And it will simply end with their returning the chambers to you."

"If only they don't take too long about it. They are holding up my experiments."

"True, that's the worst of it. I have everything ready too."

"The diving suits came?"

"Yes, today."

Persikov calmed down a little.

"U-hum . . . I think we'll do it this way. We can seal up the doors of the operating room and open the window . . ."

"Of course," agreed Ivanov.

"Three helmets?"

"Three. Yes."

"Well . . . That means you, I and someone else, perhaps one of the students. We'll give him the third helmet."

"We shall have to stay awake one night," Persikov went on. "And one more thing, Pyotr Stepanovich, did you check the gas? You never know with those 'Good Chemicals' fellows, they may send us some worthless trash."

"No, no," Ivanov waved his

hands. "I tested it yesterday. We must give them their due, Valdimir Ipatyich, it is excellent gas."

"On whom did you try it?"

"On ordinary toads. Give them a whiff, and they die instantly. Oh, yes, Valdimir Ipatyich, we must also do this. Write to the GPU, ask them to send us an electric revolver."

"But I don't know how to use it . . ."

"I'll take that upon myself," answered Ivanov. "We used to practice with one on the Klyazma, just for amusement . . . there was a GPU-man living next door . . . A remarkable thing. Extraordinary. Noiseless, and kills outright, from a hundred paces away. We used to shoot crows . . . I think we may not even need the gas."

"Hm . . . A clever idea . . . Very." Persikov went to the corner of the room, picked up the receiver and croaked out . . .

"Let me have that, oh what d'you call it . . . Lubyanka . . ."

The days were unbearably hot. You could see the dense, transparent heat wavering over the fields. And the nights were magical, deceptive, green. In the patches of moonlight you could easily read the *Izvestia*, with the exception of the chess column, printed in nonpareil. But, naturally, nobody read the *Izvestia* on such nights . . . The maid Dunya somehow

found herself in the copse behind the Sovkhoz. And, by coincidence, the red-moustachioed chauffeur of the battered little Sovkhoz truck was also there. A lamp burned in the kitchen, where two gardeners were having their supper, and Madame Destin in a white robe sat on the columned veranda, dreaming as she gazed at the resplendent moon.

At ten o'clock in the evening, when all the sounds had died down in the village of Kontsovka, situated behind the Sovkhoz, the idyllic landscape re-echoed with the lovely, delicate sounds of a flute. It is impossible to express how appropriate they were over the copses and former columns of the Sheremetyev palace. The fragile Liza from *Pique Dame* mingled her voice in a duet with the passionate Polina, and the melody wafted up into the moonlit heights like a ghost of the old regime—old, but so touchingly lovely, enchanting to the point of tears.

The copses stood in breathless silence, and Dunya, fatal as a wood nymph, listened, her cheek pressed to the prickly, reddish, masculine cheek of the chauffeur.

"He plays good, the son of a bitch," said the chauffeur, embracing Dunya's waist with his manly arm.

The player was the Sovkhoz manager himself, Alexander Semyonovich Destin, and, in all justice, he played extremely well.

The music floating over the glassy waters and copses and park was already drawing to its finale, when something happened that interrupted it before its proper end. Namely, the Kontsovka dogs, who should have been asleep at that hour, suddenly broke out into a deafening chorus of barking, which gradually turned into a general anguished howling. Spreading and rising, the howling rang over the fields, and now it was answered by a chattering, million-voiced concert of frogs from all the ponds. All this was so uncanny that for a moment it seemed that the mysterious, witching night had suddenly grown dim.

Alexander Semyonovich put down his flute and came out on the veranda.

"Many! Do you hear? Those damned dogs . . . What do you think is making them so wild?"

"How do I know?" answered Many, staring at the moon.

"You know, Manechka, let's go and take a look at the eggs," suggested Alexander Semyonovich.

"Really, Alexander Semyonovich, you've gone completely daffy with your eggs and chickens. Rest a bit!"

"No, Manechka, let's go."

A vivid light burned in the greenhouse. Dunya also came in, with a flushed face and glittering eyes. Alexander Semyonovich gently raised the observation

panes and everyone peered inside the chambers. On the white asbestos floor the spotted bright-red eggs lay in even rows; the chambers were silent . . . and the fifteen-thousand-watt bulb overhead hissed quietly.

"Oh, what a brood of chicks I'll hatch out here!" Alexander Semyonovich cried with enthusiasm.

"You know, Alexander Semyonovich," said Dunya, smiling. "The peasants in Kontsovka were saying you're the Antichrist. These are devilish eggs, they said, and it's a sin to hatch eggs by machines. They talked of killing you."

Alexander Semyonovich gave a start and turned to his wife. His face became yellow.

"Well, how do you like that? Our people! What can you do with such people? Eh? Manechka, we'll have to hold a meeting . . . Tomorrow I'll call some party workers from the district. I'll make a speech myself. We need to do some work here . . . A regular wilderness . . ."

"Dark minds," said the guard, sitting on his coat at the door of the greenhouse.

The next day was marked by the strangest and most inexplicable events. In the morning, when the sun flashed over the horizon, the woods, which usually hailed the luminary with the loud and ceaseless twittering of birds,

met it in total silence. This was noticed by everyone. As though a storm was just about to break. But there was no sign of a storm. Conversations in the Sovkhoz assumed a strange, ambiguous tone, very disturbing to Alexander Semyonovich. Especially because the old Kontsovka peasant nicknamed Goat's Goiter, a notorious troublemaker and know-it-all, had spread the rumor that all the birds had gathered into flocks and cleared out from Sheremetyevo, flying northward, which was simply stupid. Alexander Semyonovich, thoroughly distressed, spent the whole day telephoning to the town of Grachevka, from whence he finally obtained a promise that some speakers would be sent to the Sovkhoz in a day or two, to address the peasants on two topics: The International Situation, and The question of the Good Chicken Trust.

The evening brought its own surprises. Whereas the morning had seen the woods turn silent, demonstrating with utmost clarity how ominous and oppressive the absence of sound could be among the trees, and at midday all the sparrows had taken off somewhere from the Sovkhoz courtyards, by evening a hush had also fallen on the pond in Sheremetyevka. This was truly astonishing, since everyone for forty verst around was familiar with the famous croaking of the Sheremetyevka frogs. But now all the frogs seemed to have died

out. It must be admitted that Alexander Semyonovich completely lost his composure.

"It is really strange," Alexander Semyonovich said to his wife at lunch. "I can't understand why those birds had to fly away."

"How do I know?" answered Manya. "Perhaps it was because of your ray?"

"You're just a plain fool, Manya," said Alexander Semyonovich, throwing down his spoon. "No better than the peasants. What has the ray to do with it?"

"How would I know? Leave me alone."

That evening brought the third surprise. The dogs set up their baying again in Kontsovka—and what a wild performance it was! The moonlit fields reverberated with the ceaseless wailing, with anguished, angry moans.

Alexander Semyonovich was recompensed to some degree by another surprise—this time a pleasant one, which occurred in the greenhouse. A succession of tapping sounds began to come from the red eggs in the chambers. Toki . . . toki . . . toki . . . came now from one egg, now from another.

The tapping in the eggs was a triumphant sound to Alexander Semyonovich. He instantly forgot the strange phenomena in the woods and the pond. Everybody gathered in the greenhouse: Manya, Dunya, the watchman,

and the guard, who left his rifle at the door.

"Well? What do you say?" Alexander Semyonovich cried jubilantly. They all bent their ears with curiosity to the doors of the first chamber. "It's the chicks—tapping, with thir beaks," Alexander Semyonovich continued, beaming. "Who says I won't hatch any chicks? Oh, no, my friends." And, overflowing with emotion, he patted the guard on the shoulder. "I'll hatch out such a brood, your eyes will pop. Look sharp now," he added sternly. "The moment they begin to hatch, let me know at once."

"Sure thing," the watchman, Dunya and the guard answered in chorus.

Ta-ki . . . ta-ki . . . ta-ki . . . the tapping started now in one, now in another egg in the first chamber. And, indeed, the picture of the new life being born before your eyes within the thin, translucent shells was so absorbing that the whole group sat on for a long time on the empty overturned crates, watching the raspberry colored eggs ripen in the mysterious glimmering light. It was not until very late that they dispersed to their beds. The Sovkhoz and the surrounding countryside were flooded with greenish light. The night was eerie, one might even say, sinister—perhaps because its utter silence was broken by the intermittent outbursts of causeless

howling in Kontsovka, heart-rending and plaintive. It was impossible to tell what made those damned dogs carry on like that.

In the morning a new vexation awaited Alexander Semyonovich. The guard was extremely embarrassed, he pressed his hands to his heart, swore and called God to witness that he had not slept, yet he had noticed nothing.

"It's a queer thing," the guard insisted. "I am not to blame, Comrade Destin."

"Thank you, my heartfelt thanks," Alexander Semyonovich stormed. "What do you think, Comrade? Why were you posted here? To watch! Now tell me where they've disappeared! They've hatched, haven't they? That means, they've escaped. That means, you left the door open and went away. Well, you'll see to it that the chicks are here, or else!"

"There isn't any place for me to go. And don't I know my job?" the warrior was finally offended. "You're blaming me for nothing, Comrade Destin!"

"But where have they gone to?"

"How should I know?" the warrior exploded at last. "Who can keep track of them? What is my job? To see that nobody makes off with the chambers, and that's what I'm doing. Here are your crammers. Who knows what kind of chicks you'll hatch out here? Maybe you couldn't catch them on a bicycle, maybe!"

Alexander Semyonovich, taken somewhat aback, grumbled a little more, and fell into a state of puzzlement. It was indeed a strange business. In the first chamber, which had been loaded before the others, the two eggs lying closest to the base of the ray, were broken. One of the eggs had even rolled away a little, and fragments of the shells were scattered on the asbestos floor under the ray.

"What the devil," muttered Alexander Semyonovich. "The windows are shut, they couldn't have flown out through the roof!"

"What an idea, Alexander Semyonovich," Dunya cried with incredulity. "Who has ever seen flying chicks? They must be around somewhere . . . tsyp . . . tsyp . . . tsyp . . ." she began to call, poking into the corners piled with dusty flowerpots, boards and other rubbish. But no chicks responded anywhere.

The entire personnel ran about the Sovkhoz yard for two hours, searching for the nimble chicks, but nobody found anything. The day passed in extreme agitation. The guard over the chambers was doubled by the addition of the watchman, who had been given strict orders to look into the windows of the chambers every fifteen minutes, and to call Alexander Semyonovich the moment he saw anything happening. The guard sat at the door, sulking, the rifle between his knees. Alexander Sem-

yonovich wore himself out running here and there, and did not have his lunch until almost two in the afternoon. After lunch he napped for an hour in the cool shade on the former ottoman of Prince Shermetyev, drank some Sovkhoz-brewed cider, walked over to the greenhouse, and convinced himself that everything was now in excellent order. The old watchman sprawled on his belly on a piece of burlap and stared, blinking, into the observation window of the first chamber. The guard sat alertly at the door.

But there was also something new: the eggs in the third chamber, loaded last of all, began to emit strange sounds, gulping and clucking, as if someone were sobbing inside them.

"O-oh, they're ripening," said Alexander Semyonovich. "Getting ripe and ready, I can tell now. Did you see?" he addressed the watchman.

"It's sure a marvel," the latter answered in a completely ambiguous tone, shaking his head.

Alexander Semyonovich crouched for a while over the chambers, but nothing hatched in his presence. He rose, stretched himself, and declared that he would not absent himself that day from the estate; he would only run down to the pond for a swim, and if anything began to happen, he was to be summoned at once. He hurried over to the palace bed-

room; it was furnished with two narrow spring beds, covered with crumpled linen, and the floor was heaped with piles of green apples and mounds of millet, prepared for the coming broods. Arming himself with a terry towel and, after a moment's thought, with his flute, which he intended to play at leisure over the smooth waters of the pond, Destin walked out briskly from the palace, crossed the Sovkhoz courtyard, and proceeded down the willow avenue to the pond. A thicket of burdocks began on his right, and as he passed by, he spat into it. Immediately, there was a rustling in the tangle of broad sprawling leaves, as though someone were dragging a heavy log. With a fleeting twinge of anxiety, Alexander Semyonovich turned his head toward the thicket of weeds and stared with wonder. The pond has been soundless now for two days. The rustling stopped, the smooth surface of the pond and the gray roof of the bathing shed gleamed invitingly beyond the burdocks. He was just about to turn to the wooden planks leading down to the water when the rustling in the weeds was repeated, accompanied by a short hiss, as of a locomotive discharging steam. Alexander Semyonovich started and peered into the thick wall of weeds.

"Alexander Semyonovich," his wife's voice called, and her white blouse flashed, disappeared and

flashed again in the raspberry patch. "Wait, I'll come along for a swim."

His wife hastened toward the pond, but Alexander Semyonovich did not answer, his entire attention fixed on the burdocks. A gray-green log began to rise from the thicket, growing before his eyes. The log, it seemed to Alexander Semyonovich, was splotched with moist yellowish spots. It began to stretch, swaying and undulating, and rose so high that it overtopped the scrubby little willow . . . Then the top of the log seemed to break and lean over at an angle, and Alexander Semyonovich was in the presence of something that resembled in height and shape a Moscow electric pole. But this something was three times thicker than a pole and far more beautiful, thanks to the scaly tattoo. Still comprehending nothing, but feeling a chill creeping over him, Alexander Semyonovich stared at the top of the terrifying pole, and his heart skipped several beats. It seemed to him that a sharp frost had fallen suddenly over the August day, and his eyes turned dark as though he were looking at the sun through a pair of summer trousers.

At the upper end of the log there was a head. It was flat, pointed, and adorned with a yellow round spot on an olive-green background. A pair of lidless, open, icy, narrow eyes sat on the top of the head, gleaming with utterly unheard-of

malice. The head made a quick forward movement, as though pecking the air, then the pole gathered itself back into the burdocks, and only the eyes remained, staring unblinkingly at Alexander Semyonovich. The latter, covered with sticky sweat, uttered four words, completely absurd and caused only by maddening fear. (And yet, how beautiful those eyes were among the leaves!)

"What sort of joke . . . ?"

Then he remembered that the fakirs . . . yes . . . yes . . . India . . . a woven basket and a picture . . . They charm . . .

The head swept up again, and the body began to emerge once more. Alexander Semyonovich brought the flute to his lips, gave a hoarse squeak, and, panting for breath every second, began to play the waltz from *Eugene Onegin*. The eyes in the greenery instantly began to burn with implacable hatred of this opera.

"Have you lost your mind, playing in this heat?" Manyá's merry voice rang out, and Alexander Semyonovich caught the glimmer of white out of the corner of his eye.

Then a sickening scream rent the air of the Sovkhoz, expanded and flew up into the sky, while the waltz jumped up and down as with a broken leg. The head in the thicket shot forward, and its eyes left Alexander Semyonovich, abandoning his sinful soul to repentance. A

snake, some fifteen yards long and the thickness of a man, leaped out of the burdocks like a steel spring. A cloud of dust sprayed Destin from the road, and the waltz was over. The snake whipped past the Sovkhoz manager directly toward the white blouse down the road. Destin saw Manyá turn yellow-white, and her long hair stood up over her head as though made of wire. Before his eyes, the snake opened its maw for a moment, and something like a fork flicked out of it, then it seized Manyá, who was sinking into the sand, by the shoulder and jerked her up a yard above the road. Manyá repeated her piercing death scream. The snake coiled itself into an enormous corkscrew, its tail churning up a sandstorm, and it began to squeeze Manyá. She did not utter another sound, and Destin only heard her bones snapping. Manyá's head flew up high over the earth, tenderly pressed to the snake's cheek. Blood splashed from her mouth, a broken arm slipped out, and little fountains of blood spurted from under the nails. Then, almost dislocating its jaws, the snake opened its maw, quickly slipped its head over Manyá's, and began to pull itself over her like a glove over a finger. The snake's hot breath spread all around it, scalding Destin's face, and its tail almost swept him off the road in a cloud of acrid dust. It was then that Destin turned gray. First the left, then the right half of

his pitch-black head became silver. In deadly nausea he finally broke from the road, and, seeing and hearing nothing more, bellowing like a wild beast, he plunged into headlong flight.

Shchukin, the agent of the State Political Administration at the Dugino Station, was a very brave man. Reflectively, he said to his assistant, the red-headed Politis:

"Oh, well, I guess we'll go. Eh? Get out the motorcycle." After a silence, he added, turning to the man who sat on a bench; "Put down your flute."

But the gray-haired, shaking man on the bench in the office of the Dugino GPU did not put down his flute, but burst into a fit of crying and inarticulate moaning. Shchukin and Politis saw that the flute would have to be taken from him. The man's fingers seemed frozen to it. Shchukin, a man of enormous strength who could almost have been a circus strong man, began to unbend one finger after another. Then he put the flute on the table.

This was in the early sunny morning of the day following Manya's death.

"You will come with us," said Shchukin to Alexander Semyonovich. "You will show us the way around." But Destin raised his hands against him in horror and covered his face, as if to shut out a frightful vision.

"You'll have to show us," Politis added sternly.

"No, let him alone. The man is not himself."

"Send me to Moscow," Alexander Semyonovich begged, crying.

"You won't return to the Sovkhoz at all?"

Instead of an answer, Destin once more covered his face and horror poured from his eyes.

"All-right," decided Shchukin. "I can see you really aren't up to it. . . . The express will be coming soon, you can take it."

Then, while the station guard was trying to bring Alexander Semyonovich around with some water, and the latter's teeth chattered on the blue, cracked cup, Shchukin and Politis held a conference. Politis felt that, generally, nothing had happened, and that Destin was simply a deranged man who had had a terrifying hallucination. Shchukin tended to think that a boa constrictor might have escaped from the circus which was then performing in the town of Grachevka. Hearing their skeptical whispers, Alexander Semyonovich rose from the bench. He recovered a little and, stretching his arms like a Biblical prophet, said:

"Listen to me. Listen. Why don't you believe me? It was there. Or where is my wife?"

Shchukin became silent and serious, and immediately sent a telegram to Grachevka. He assigned a third agent to keep a constant eye

on Alexander Semyonovich and accompany him to Moscow. Meanwhile, Shchukin and Politis began to prepare for the expedition. They had only one electric revolver, but that should be protection enough. The 1927 fifty-round model, the pride of French technology, devised for short-range fighting, fired only to a distance of a hundred paces, but covered a field two meters wide, and killed everything alive within this field. It was difficult to miss with it. Shchukin strapped on the shiny electric toy, and Politis armed himself with an ordinary 25-round sub-machine gun and some cartridge belts. Then they mounted a motorcycle and rolled off toward the Sovkhoz through the dewy, chilly morning. The motorcycle rattled off the twenty verst between the station and the Sovkhoz in fifteen minutes (Destin had walked all night, crouching now and then in the roadside shrubbery in paroxysms of mortal terror). The sun was beginning to bake in earnest when the sugar-white, columned palace flashed through the greenery on the hill overlooking the meandering Top river. Dead silence reigned over the scene. The motorcycle dashed across the bridge, and Politis blew the horn to call someone out. But no one responded, except for the frenzied Kontsovka dogs in the distance. Slowing down, the motorcycle drove up to the gates with the bronze lions,

green with neglect and time. The dust-covered agents in yellow leggings jumped off, fastened the motorcycle to the iron railing with a chain and lock, and entered the courtyard. They were struck by the silence.

"Hey, anyone here?" Shchukin called loudly.

No one answered. The agents walked around the yard with growing astonishment. Politis frowned. Shchukin began to look more and more serious, knitting his fair eyebrows. They peered through the closed window into the kitchen and saw that it was empty, but the entire floor was littered with white bits of broken china.

"You know, something really must have happened here. I can see it now. Some catastrophe," said Politis.

"What the hell," grumbled Shchukin. "It couldn't have gobbled all of them at once. Unless they ran off. Let's go into the house."

The door of the palace with the columned terrace was wide open, and the interior was completely deserted. The agents even climbed to the mezzanine, knocking everywhere and opening all the doors. But they discovered absolutely nothing, and returned to the courtyard through the vacant porch.

"Let's walk around to the back. We'll try the greenhouse," decided Shchukin. "We'll search the place, then we can telephone."

The agents walked down the

brick-paved pathway past the flowerbeds to the backyard, crossed it and saw the glittering windows of the greenhouse.

"Wait a moment," Shchukin whispered, unbuckling the revolver. Politis, watchful and tense, unslung his submachine gun. A strange, resonant sound came from the greenhouse and from behind it. It was like the hissing of a locomotive Zau-zau . . . z-zanzau . . . s-ss-ss . . . the greenhouse hissed

"Look out, careful," whispered Shchukin, and, trying to step softly, the agents tiptoed to the windows and peered into the greenhouse.

Politis instantly jumped back and his face turned pale. Shchukin opened his mouth and stood transfixed with the revolver in his hand.

The whole greenhouse was alive like a pile of worms. Coiling and uncoiling in tangled knots, hissing and stretching, slithering and swaying their heads, huge snakes were crawling over the greenhouse floor. Broken eggshells were strewn over the floor and crackled under their bodies. Overhead burned an electric bulb of dazzling brightness, bathing the whole interior of the greenhouse in a weird cinematic light. On the floor lay three black boxes, like huge photographic cameras. Two of them, leaning askew, were dark; in the third there glowed a small, densely scarlet light. Snakes of all sizes crawled

along the cables and window frames and squirmed out through openings in the roof. From the electric bulb itself hung a jet-black spotted snake several yards long, its head swaying near the bulb like a pendulum. The hissing was punctuated by a curious rattling and clicking, and the greenhouse diffused an oddly rank smell, like a stagnant pool. The agents also caught sight dimly of piles of white eggs heaped in the dusty corners, an exotic giant bird lying motionless near the boxes, and the corpse of a man in gray near the door, next to a rifle.

"Get back," cried Shchukin, and began to retreat, pushing Politis back with his left hand and raising the revolver with his right. He managed to fire nine times, his gun hissing and flashing greenish lightnings at the greenhouse. The sounds within rose violently in answer to Shchukin's fire; the entire greenhouse became a mass of frenzied movement, and flat heads darted in every opening. A succession of thunderclaps re-echoed over the entire Sovkhoz, and flashes played upon the walls. Chakh-chakh-chakh takh, Politis fired his submachine gun, backing away. Suddenly there was a strange, four-footed padding behind him and, with a horrible scream, Politis tumbled backward. A brownish-green creature with a splayed-out paws, a huge pointed snout and a ridged tail, resembling a lizard of terrify-

ing size, had slithered from around the corner of the barn and viciously bit through Politis' foot, throwing him over.

"Help," cried Politis, and immediately his left hand was caught in the maw and snapped. Vainly trying to raise his right hand, he dragged his gun in the sand. Shchukin turned around and began to rush from side to side. He fired once, but aimed wide of the mark, afraid to hit his comrade. His next shot was in the direction of the greenhouse, because a huge olive-colored snake head had appeared there among the smaller ones, and its body sprang toward him. The shot killed the giant snake, and again, jumping and circling around Politis, already half-dead in the crocodile's maw, Shchukin tried to choose his aim so as to kill the hideous creature without hitting the agent. At last he succeeded. The electric revolver fired twice, throwing a greenish light on everything around, and the crocodile leaped, stiffened, stretched out and released Politis. But now blood gushed from the agent's sleeve and mouth, and, leaning on his sound right arm, he tried to drag his broken left leg. His eyes were dimming.

"Run . . . Shchukin," he sobbed out.

Shchukin fired several times in the direction of the greenhouse, shattering several windows. But then a huge spring, olive colored

and sinuous, leaped out from the cellar window behind him, swept across the yard, filling it with its enormous length, and in an instant coiled itself round Shchukin's legs. He was knocked down, and the shiny revolver flew out sideways. Shchukin gave a mighty cry, gasped for air, and then the rings concealed him altogether, except for the head. A coil slipped once over his head, ripping off the scalp, and the head cracked. There were no more shots in the Sovkhoz. Everything was drowned out by the hissing. And in reply to it, the wind brought in the distant howling from Kontsovka. But now it was no longer possible to tell whether the howling came from dogs or men.

The night office of the newspaper *Izvestia* was lit by bright electric lights, and the fat editor at the stone table was making up the second page, containing dispatches "From the Union of Republics." One item caught his eye, he peered at it through his pince-nez and burst out laughing. Then he called the proofreaders and the makeup man and showed them the galley sheet. The narrow strip of damp paper carried the words:

"Grachevka, Smolensk Province. A hen as large as a horse and kicking like a stallion has been seen in the district. Instead of a tail, it has a bunch of bourgeois lady's feathers."

The composers roared with laughter.

"In my day," said the editor, guffawing broadly, "when I was working for Vanya Sytin's *Rus-skoye Slovo*, some of the men would drink themselves to the point of seeing elephants. They did. Nowadays, it seems, they're seeing ostriches."

The proofreaders roared.

"That's right, it is an ostrich," said the makeup man. "Shall we use it, Ivan Vonifatievich?"

"Have you lost your wits?" answered the editor. "I wonder how the secretary let it through—it's just a drunken message."

"Must have been quite a binge," the composers agreed, and the makeup man removed the report about the ostrich from the table.

Consequently, the *Izvestia* appeared on the following day containing the usual mass of interesting material, but not a hint concerning the Grachevka ostrich. Assistant Professor Ivanov, who read the *Izvestia* regularly and thoroughly, folded the paper in his office, yawned, commented, "Nothing of interest," and began to put on his white smock. A little later, the burners flickered in his room and frogs began to croak. But Professor Persikov's office was in an uproar. The frightened Pankrat stood at attention, his arms stiffly down at his sides.

"I understand . . . Yes, sir," he said.

Persikov handed him an envelope sealed with wax and said:

"You will go straight to the Department of Livestock Breeding, to that fool of a director Fowlin, and tell him right out that he is a swine. Tell him that I, Professor Persikov, said so. And give him the envelope.

"A fine thing . . ." thought the pale Pankrat to himself, clearing out with the envelope.

Persikov raged.

"Damn them, they don't know what they're doing," he whimpered pacing the office and rubbing his gloved hands. "It's outrageous—a mockery of me and of zoology: Sending me piles of these damned chicken eggs for two months, but nothing I have ordered. As if it were so far to America! Eternal confusion, eternal nonsense . . ." He began to count on his fingers: "Let us say, ten days at most to hunt them up . . . very well, fifteen . . . even twenty. Then two days for air delivery, a day from London to Berlin . . . Six hours from Berlin to Moscow . . . Incredible bungling . . ."

He furiously attacked the telephone and began to ring someone.

His office was ready for some mysterious and highly dangerous experiments. On the table lay strips of paper prepared for sealing the doors, diving helmets with air tubes, and several cylinders, shiny as quicksilver, labeled,

"Good Chemicals Trust," "Do not touch," and pasted over with pictures of a skull and crossbones.

It took more than three hours before the professor calmed down and took up some minor tasks. He worked at the Institute until eleven o'clock in the evening, and therefore knew nothing of what transpired outside the cream-colored walls. Neither the preposterous rumor about some strange snakes, which had spread through Moscow, nor the dispatch in the evening papers, called out by the newsboys, had reached him; Assistant Professor Ivanov was at the Art Theatre, watching *Tsar Fyodor Ioannovich*, and there was no one else to bring the news to the professor.

At about midnight, Persikov came home to the Prechistenka and retired for the night. He slept. Moscow, alive and seething till late into the night, slept. Only the huge gray building on Tverskaya Street did not sleep. The building was shaken by the roaring and humming of the *Izvestia* printing presses. The night editor's office was in a state of pandemonium. The editor, furious, red-eyed, rushed about not knowing what to do and sending everybody to the devil's mother. The makeup man followed him about, reeking of wine fumes and saying:

"Oh, well, it's not so terrible, Ivan Vonifatievich, we can publish an extra supplement to-

morrow. After all, we can't pull the whole issue out of the press!"

The compositors did not go home, but went about in flocks and gathered in knots to read the telegrams which were now coming every fifteen minutes throughout the night, each more fantastic and terrifying than the last. Alfred Bronsky's peaked hat dashed about in the dazzling pink light of the printing shop, and the mechanical fat man creaked and limped, appearing now here, now there. The entrance doors slammed continuously, and reporters came rushing in all night. All twelve telephones in the press room were busy; the station almost automatically answered every new call, "busy," "busy," and the signal horns sang and sang before the sleepless young ladies at the station . . .

The compositors clustered around the mechanical fat man, and the former sea captain was saying to them:

"They'll have to send down airplanes with gas."

"Sure thing, answered the compositors. "God knows what's going on there." Unprintable, angry oaths shook the air, and somebody's thin voice screamed:

"This Persikov ought to be shot!"

"What has Persikov to do with it?" somebody answered in the crowd. "It's that son of a bitch in the Sovkhoz, he's the one to blame!"

"They should have posted a guard," shouted someone.

"But maybe it has nothing to do with the eggs at all!"

The building shook and hummed from the rolling presses, and it seemed that the unprepossessing edifice was blazing with an electric fire.

The dawning day did not extinguish this fire. If anything, the day intensified it, although the electricity went out. Motorcycles rolled into the asphalt yard one after another, alternating with cars. All of Moscow had awakened, and the white sheets of the newspapers spread over it like birds. The sheets rustled from hand to hand, and by eleven in the morning the newsboys ran out of papers, despite the fact that the *Izvestia* came out that month in editions of one and a half million. Professor Persikov left Prechislna by bus and arrived at the Institute. There he found a surprise. In the vestibule stood three wooden boxes, neatly bound with metal strips and covered with foreign labels in German. The labels were dominated by a single Russian line, written in chalk: "Careful—eggs."

The professor was overwhelmed with joy.

"At last!" he cried. "Pankrat, open the crates at once, but take care, don't crush the eggs. Bring them into my office."

Pankrat immediately carried

out the order, and fifteen minutes later the professor's voice rose in fury in his office, which was littered with sawdust and scraps of paper.

"What the hell, are they playing jokes on me?" the professor wailed, shaking his fists and turning the eggs in his hands. "He's a filthy beast, this Fowlin. I won't permit him to make a fool of me. What is this, Pankrat?"

"Eggs, sir," Pankrat answered dolefully.

"Chicken eggs, you understand, chicken eggs, the devil take them! They're of no damned use to me. Why don't they send them to that scoundrel in his Sovkhoz?"

Persikov rushed to the telephone in the corner, but before he had time to call, Ivanov's voice shouted from the corridor:

"Vladimir Ipatyich! Vladimir Ipatyich!"

Persikov tore himself away from the telephone, and Pankrat jumped aside, making way for the assistant professor. The latter ran into the room without, as his polite custom was, removing his gray hat, which sat far back on his head. He held a newspaper in his hands.

"Do you know what happened, Vladimir Ipatyich?" he cried, waving in front of Persikov's face a sheet of paper headed, *Extra Supplement* and graced with a brightly colored picture.

"No, but listen to what they

did," Persikov shouted in reply, without listening. "They've decided to surprise me with some more chicken eggs. This Fowlin is a total idiot, just look!"

Ivanov was utterly dumbfounded. He stared in horror at the opened crates, then at the newspaper, and his eyes almost jumped out of his face.

"So that's it!" he muttered, gasping. "Now I see . . . No, Vladimir Ipatievich, just take a look," he quickly unfolded the paper and pointed to the colored picture with a trembling finger. It showed an olive-colored, yellow-spotted snake, coiling like a terrifying fire hose against a smudged green background. The photograph was taken from above, from a light plane which had cautiously dived over the snake. "What would you say it is, Vladimir Ipatyich?"

Persikov pushed his glasses up on his forehead, then slipped them down again, peered at the picture and said with extreme astonishment:

"What the devil! It's . . . why, it's an anaconda, a river boa . . ."

Ivanov flung down his hat, sat down heavily on the table, and said, punctuating every word with a bang of the fist on the table:

"Vladimir Ipatyich, this anaconda is from the Smolensk Province. It's monstrous! Do you understand, that scoundrel has hatched snakes instead of chickens, and

they have multiplied as phenomenally as the frogs!"

"What?!" Persikov screamed, and his face became purple . . . "You're joking, Pyotr Stepanovich . . . Where from?"

Ivanov was speechless for a moment, then he regained his voice and, poking his finger at the open crate, where the tips of the white eggs gleamed in the yellow sawdust, he said:

"That's where."

"Wha-at?" howled Persikov, beginning to understand.

Ivanov shook both his fists and cried:

"You can be sure. They sent your order for snake and ostrich eggs to the Sovkhoz, and the chicken eggs to you."

"Oh, God . . . oh, God," Persikov moaned and, turning green, began to sink onto the revolving stool.

Pankrat stood utterly bewildered at the door, white and speechless. Ivanov jumped up, snatched the paper, and, underscoring a line with a sharp nail, he shouted into the professor's ear:

"They'll have a jolly business on their hands now! I absolutely cannot imagine what will happen next. Valdimir Ipatyich, look," and he bellowed out, reading the first passage in the crumpled sheet that caught his eye. "The snakes are moving in hordes toward Mozhaisk . . . laying enormous quantities of eggs. Eggs were seen

in the Dukhovsk district . . . Crocodiles and ostriches are overrunning the countryside. Special troop units . . . and detachments of state police halted the panic in Vyazma after setting fire to the woods outside the town to bar the approach of the reptiles . . ."

Persikov became bluish white. With demented eyes he rose from the stool and began to scream, panting and suffocating:

"Anaconda . . . anaconda . . . water boa! My God!"

Neither Ivanov, nor Pankrat had ever seen him in such a state.

The professor pulled off his tie, ripped the buttons from his shirt, turned a livid purple like a man . . . having a stroke, and, staggering, with staring glassy eyes, rushed out. His shouts reverberated under the stone archways of the Institute.

"Anaconda . . . anaconda . . ." rolled the echo.

"Catch the professor!" Ivanov shrieked to Pankrat, who was dancing up and down on one spot with terror. "Get him some water . . . He's having a stroke!"

Moscow was blaze with the frenzied electric night.

No one slept in Moscow, which had a population of four million, except the youngest children, who knew nothing. In every apartment distracted people ate and drank without care whatever was at hand, everywhere people cried out,

and every minute distorted faces peered out of the windows from all floors, looking up at the sky, criss-crossed with searchlights. The sky hummed steadily with low-flying airplanes. Tverskaya-Yamskaya Street was the worst of all. Every ten minutes trains arrived at the Alexander Station. They were made up helter-skelter of freight and passenger cars of every class, and even of tank cars, all of them clustered with fear-crazed people, who then rushed down Tverskaya-Yamskaya in a dense stream. People rode in buses, on the roofs of trolleys, they crushed one another and fell under the wheels. At the station, quick, uneasy bursts of firing rapped out every now and then over the heads of the crowd: the troop units were trying to stop the panic of the maniacs running along the railway tracks from the Smolensk Province to Moscow. Now and then, the station windows shattered into splinters with a crazy gulping sound, and all the locomotives howled incessantly. The streets were littered with posters, discarded and trampled. Their contents were already known to everyone, and nobody read them. They proclaimed a state of emergency in Moscow. They threatened penalties for panic and reported that Red Army units, armed with gas, were departing in a steady stream for the Smolensk Province. But the posters were

powerless to stem the howling night. All stations leading north and east were cordoned off by the heaviest line of infantry. Huge trucks, with swaying, clanging chains, loaded to the top with crates surmounted by soldiers in peaked helmets, with bayonets bristling in all directions, were carting off the gold reserves from the cellars of the People's Commissariat of Finance, and enormous boxes marked, "Careful. Tretyakov Art Gallery." Automobiles barked and scurried all over Moscow.

Far on the horizon, the sky quivered with the glow of distant fires, and the dense August blackness was shaken by the steady booming of canons.

Toward morning, a massive serpent of cavalry wound its way through sleepless Moscow, which had not extinguished a single light. The rushing and howling mobs seemed to recover at the sight of the serried ranks pushing relentlessly forward through the seething ocean of madness. The crowds of the sidewalks began to howl with hope renewed.

"Long live the cavalry!" cried frenzied female voices.

"Hurrah!" replied the men.

Packs of cigarettes, silver coins and watches began to fly into the ranks from the sidewalks. Occasionally the voices of platoon commanders rose above the ceaseless chattering of hooves:

"Draw in the reins!"

A gay and reckless song was struck up somewhere, and the faces under the dashing scarlet cowls swayed over the horses in the wavering light of electric signs. Now and then, alternating with the column of horsemen with uncovered faces, came mounted figures in strange hooded helmets, with tubes flung over their shoulders and cylinders attached to straps over their backs. Behind them crawled huge cistern trucks with the longest sleeves and hoses, like fire engines, and heavy, pavement-crushing caterpillar tanks, hermetically sealed and gleaming with their narrow embrasures. Then came more mounted columns, and after them more cars, solidly encased in gray armor, with similar tubes protruding outside, and with white skulls painted on their sides, over the words, "Gas" and "Good Chemicals."

"Save us, brothers," the people wailed from the sidewalks, "Crush the snakes . . . Save Moscow!"

A song, subdued and tugging at the heart, began to spread along the ranks:

*". . . no ace, no queen, no jack,
We'll beat the reptiles' filthy pack
. . ."*

Peals of "Hurrah" rolled over the tangled human mass in answer to flying rumors that at the head of all the columns, in the same scarlet cowl as the rest of the horsemen, rode the graying com-

mander of the horse army who had won legendary fame ten years before. The mob howled, and the rolling of "Hurrah . . . Hurrah . . . rose up into the sky, bringing some solace to the desperate hearts.

The Institute was dimly lit. Outside events reached it only in vague and fragmentary echoes. Once a volley of fire burst fanline under the fiery clock near the Manege: soldiers were shooting down some looters who had tried to rob an apartment on the Volkhonka. There was little automobile traffic here, most of it massing toward the railway stations. In the professor's study, lit by a single small bulb, Persikov sat with his head on his hands, silent. Ribbons of smoke floated in layers around him. The ray in the box was out. The frogs in the terraria were silent because they were asleep. The professor did not work, and did not read. Under his left elbow lay the evening edition of news dispatches on a narrow strip of paper, reporting that all of Smolensk was on fire and that the artillery was shelling the Mozhaïsk forest systematically, sector by sector, to destroy the piles of crocodile eggs heaped in all the damp ravines. Another report said that an air squadron had achieved considerable success near Vyazma, flooding almost the entire district with gas, but that the number of human victims in the area was impossible to estimate, because, instead of order-

ly evacuation, the people rushed about in divided, panic-stricken groups in all directions at their own risk. There was a report that a special Caucasus division near Mozhaïsk had won a brilliant victory over herds of ostriches, hacking them all to pieces and destroying huge quantities of eggs. The division itself sustained negligible losses. The government announces that, should it prove impossible to halt the reptiles within two hundred verst of the capital, the latter would be evacuated in orderly fashion. Workers and employees were enjoined to maintain perfect calm. The government would take the sternest measures to prevent a repetition of the Smolensk disaster. There, thrown into panic by the sudden attack of an army of several thousand rattlesnakes, the people had rushed into hopeless wholesale flight, leaving burning stoves which soon transformed the city into a mass of raging flames. It was also reported that Moscow had enough provisions to last at least six months, and that the Council of the Commander in Chief was taking speedy measures to fortify and arm all apartment buildings in order to fight the reptiles in the very streets of the capital in the event the Red Armies and the air fleets failed to halt their advance.

The professor read none of this. He stared before him with glassy eyes and smoked. Beside him, only two other persons were at the In-

stitute—Pankrat and the housekeeper, Marya Stepanovna, who was continually breaking into tears. The old woman had not slept for three nights, having spent them in the study of the professor, who adamantly refused to abandon his only remaining, now extinguished chamber. Marya Stepanovna huddled on the oilcloth sofa, in a shadowy corner, and kept a silent, sorrowful vigil, watching the kettle with some tea for the professor coming to a boil on the tripod over the gas burner. The Institute was silent, and everything happened very suddenly.

On the sidewalk outside there was an outburst of angry shouts, which made Marya Stepanovna jump and cry out. Flashlights and lanterns flickered in the street, and Pankrat's voice was heard in the vestibule. All this noise meant little to the professor. He raised his head for a moment, and muttered, "They're going crazy . . . what can I do now?" Then he relapsed into stupor. But his stupor was rudely broken. The iron doors of the Institute on Herzen Street rang with violent blows, and the walls shook. Then the solid mirrored wall in the next office split asunder. The window of the professor's study sang out and flew into splinters as a gray rock bounced into the room, smashing the glass table. The frogs began to scuttle in alarm in their terraria, raising a wild outcry. Marya Stepanovna

ran about, wailing, rushed to the professor and seized him by the hands, shouting, "Run, Vladimir Ipatyich, run!" The latter rose from the revolving stool, straightened himself up, and curling his forefinger into a hook, answered, his eyes recovering the sharp little glitter reminiscent of the old, inspired Persikov:

"I am not going anywhere," he said. "This is stupid. They are rushing about like maniacs. . . . If all Moscow has gone mad, where am I to go? Please stop screaming. What have I to do with it? Pankrat!" he called, pressing a button.

He probably wanted Pankrat to put a stop to the commotion, which he had always disliked. But Pankrat no longer could do anything. The banging ended when the Institute doors flew open; there was a distant popping of shots, and then the whole stone edifice shook with the thunder of running feet, with shouts and the sound of crashing windows. Marya Stepanovna clutched at Persikov's sleeve and began to drag him somewhere, but he shook her off, drew himself up to his full height, and, just as he was, in his white smock, he walked out into the corridor.

"Well?" he asked. The doors swung open, and the first thing to appear in them was the back of a military uniform with a red sheron and a star on the left sleeve. The officer was retreating from the door, through which a furious mob

was pressing forward, and firing his revolver. Then he turned and dashed past Persikov, shouting to him:

"Save yourself, Professor, run, I can do nothing more!"

His words were answered by the frenzied shriek of Marya Stepanovna. The officer jumped past Persikov, who stood still like a white statue, and disappeared in the darkness of the tortuous corridors at the other end. People burst into the door, howling:

"Get him! Kill him. . . ."

"Public enemy!"

"Loosed the snakes against us!"

Twisted faces and ripped clothing milled in the corridors, and someone fired a shot. Sticks waved in the air. Persikov made a step back, barring the door to the study, where Marya Stepanovna knelt in terror on the floor, and spread out his arms, as one crucified. . . . He wanted to prevent the mob from entering, and cried with irritation:

"This is complete madness. . . . You are utterly wild beasts. What do you want?" And then he bawled—"Get out of here!"—and completed his speech with the shrill familiar cry, "Pankrat, throw them out!"

But Pankrat could no longer throw anyone out. Pankrat, trampled and torn, with a crushed skull, lay motionless in the vestibule, while new and new crowds stamped past him, paying no at-

tention to the fire of the militia in the street.

A short man, with ape-like crooked legs, in a torn jacket and a tattered, twisted shirt, dashed out ahead of the others, leaped toward Persikov, and with a frightful blow of a stick opened his skull. Persikov swayed and began to collapse sideways. His last words were:

"Pankrat. . . . Pankrat. . . ."

The completely innocent Marya Stepanovna was killed and torn to pieces in the study. The chamber, in which the ray had long gone out, was smashed to bits, as were the terraria, and the crazed frogs were hunted down with sticks and trampled underfoot. The glass tables were shattered to pieces, the reflectors were smashed, and an hour later the Institute was a mass of flames.

On the night of August 19 to 20, an unprecedented frost descended on the country, unlike anything within the memory of the oldest citizens. It came and lasted two days and two nights, bringing the thermometer down to 18° below zero. Frenzied Moscow locked all its doors and windows. It was not until the third day that the residents of Moscow realized that the frost had saved the capital and the vast expanses which it governed and which had been the scene of the terrible catastrophe of 1928. The cavalry at Mozhaïsk

had lost three quarters of its men and was near exhaustion, and the gas squadrons had not been able to halt the advance of the loathesome reptiles, which were closing in on Moscow in a semicircle, from the west, the southwest, and the south.

The reptiles were defeated by the cold. Two days and two nights at 18° below zero had proved too much for the abominable herds. When the frost lifted, leaving nothing but dampness and mud on the ground, leaving the air dank and all the greenery blasted by the sudden cold, there was no longer anyone left to fight. The calamity was over.

For a long time the wide expanses of the land were still putrescent with innumerable corpses of crocodiles and snakes, called forth to life by the mysterious ray born under the eyes of genius on Herzen Street, but they were no longer dangerous. The fragile creatures of the rank and sweltering tropical swamps had perished in two days, leaving throughout the territory of three Provinces a legacy of frightful stench, disintegration and decay.

And in the spring of 1929 Moscow once more was dancing, glittering and flashing with lights. Again the rolling of mechanical carriages rustled on the pavements, and the crescent of the moon hung, as though suspended on a fine thread, over the helmet of the Cathedral of Christ. On the site of the two-story Institute which had burned down in August, 1928, there rose a new zoological palace. Its director was Assistant Professor Ivanov, but Persikov was no longer there. The ray and the catastrophe of 1928 were long discussed and written about throughout the world, but gradually the name of Professor Vladimir Ipatievich Persikov receded into mist, sank into darkness, as did the scarlet ray he had discovered on an April night.

Simple as had been the combination of lenses with the mirrored clusters of light, no one had ever succeeded in obtaining it again, despite Ivanov's efforts. Evidently this required something special in addition to knowledge, something possessed by only one man in the world—the late Professor Vladimir Ipatievich Persikov.

A longer version of THE FATAL EGGS will be included in the volume, SOVIET SATIRE: THE FATAL EGGS AND OTHER STORIES, to be published in 1965 by Macmillan, N. Y.

BOOKS—MAGAZINES

INCREASE YOUR EARNINGS by telling your story in a professionally written resume. "The Complete Resume Handbook" includes instructions, samples, fill-in worksheets and interview guidance. \$2.00—Treasure Hunt, Box 265-F, West Orange, N. J. 07052

Why buy books? Send 10¢ for information & catalog to: Science Fiction Circulating Library, P. O. Box 1308, So. San Gabriel, California.

25,000 magazines for sale. Thousands wanted in excellent condition; science fiction, weird, horror, spicy, western, adventure, others. Send list, enclosing stamp. Magazine Center, Box 214, Little Rock, Ark.

Unusual Books, All Subjects, Catalogs 15¢ P. O. Box 195, Marquand, Mo.

Weird Tales; other fantasy magazines. Richard Minter, Draper, No. Carolina.

Atheist books, magazines, declare religion is a gigantic fiction, free sample, free catalog. Truth Seeker, Box 2832, San Diego, Calif.

Pocketbooks—750 SF and Fantasy. Best offer. J. Foard, Morenci, Arizona.

TRY the favorite magazine of book collectors. One year \$3.00. Satisfaction guaranteed. The Booklover's Answer, Webster 25, New York.

153 F&SF '49-'64 \$50. Caragonne, 2913 Ferndale, Houston, Texas.

BUSINESS OPPORTUNITIES

SELL CB EQUIPMENT—Dealerships available to aggressive people who can sell Citizens Band Radio full or part time. Knox Electronic, Dept. FS9, Galesburg, Illinois 61401.

EDUCATIONAL

LOVE, WORK AND KNOWLEDGE—their definition is the goal of our school and summer camp. Coeducational. Four to Eighteen. SUMMERLANE, Miles 5, New York.

Do you have something to advertise to sf readers? Books, magazines, typewriters, telescopes, computers, space-drives, or misc. Use the F&SF Market Place at these low, low rates: \$2.50 for minimum of ten (10) words, plus 25¢ for each additional word. Send copy and remittance to: Adv. Dept., Fantasy and Science Fiction, 347 East 53 Street, New York 22, N. Y.

MARKET PLACE**PATENTS AND INVENTIONS**

INVENTIONS wanted. Patented, unpatented. Extensive manufacturers lists. Search service. Applications prepared. Financial assistance available. For free details write New York Invention Service, 141 Broadway, Room 817, New York 6, New York.

HYPNOTISM

Hypnosis does help! Free information. Azadiata, 5786 So. Elm, Fresno, California.

Free Illustrated, Hypnotism Catalogue. Write Powers, 8721 Sunset, Hollywood 69, California.

LEARN WHILE ASLEEP. Hypnotize with your recorder, phonograph. Astonishing details, sensational catalog free. Sleep-learning Research Association, Box 24-FS, Olympia, Washington.

PERSONAL

STRANGE UNIQUE items catalog 10¢. Black Magic Shop, Dept. R, Box 5664, Minneapolis, Minnesota 55417.

PHOTOGRAPHY

ENLARGEMENTS, Double Weight 5x7, 40¢; 8x10, 49¢; from negatives 120 square, 127, 35mm. Return postage paid. Maurer, 7850 79th St., Glendale 27, New York.

POSITIONS WANTED

Need interesting, remunerative job. All office skills. Ruth McMahon, 33 Riverside Drive, New York, N.Y.

SERVICES—AUTHORS

PUBLISH your book! Join our successful authors; publicity advertising promotion, beautiful books. All subjects invited. Send for free appraisal and detailed booklet. Carlton Press, (Dept. FSL) 84 Fifth Avenue, N.Y.C. 11.

EXPERT MANUSCRIPT TYPING. 60¢ per thousand words. Pica or Elite type, carbon and minor corrections. R. Gene Ward, Box 394, El Segundo, California, 90246.

STAMPS

FIFTEEN PLEASANT OFFERS plus valuable tips on stamps. Write Bileski, Station B, Winnipeg, Canada.

MISCELLANEOUS

FULL COLOR COVERS of Fantasy and Science Fiction without overprinting—suitable for framing: 75¢ for one; \$2.00 for three; \$3.00 for six; \$15.00 for thirty-three. Our selection. Send order and remittance to: Mercury Press, Inc., Box 271, Rockville Centre, N.Y. 11571.

Guide to the exploration of Space. This timely map vividly illustrates Solar system, Planets, Stars, etc.; also shows earth's atmosphere, moon's surface, interplanetary ships, Ship control, Satellites, etc.; Each planet illustrated in detail with its particular problems. Full color 28" X 40" wall map. Send \$2.00 to: Sinclair, 507 Mill St., Grass Valley, California.

BEERS, PEACH BRANDY, WINES—Strongest Formulas, \$2.00. (Complete Brew Supplies: Hydrometers, Presses, Crushers). Research Enterprises, 29-MOB Samoset Road, Woburn, Mass.

MAGNETIC ENGINE novelty, new, patented, 4000 rpm. You receive a complete 10 part assembly kit with instructions and drawings. See the latest in magnetic phenomenon. Send \$2.00 now (refundable). Pontin Products, 3234 So. Hudson, Seattle, Washington 98118.

Learn Radio Code the easy way—you will be able to memorize half the alphabet in thirty minutes. Send \$1.00 for instructions. Busse, 7231 - 73rd Street, Glendale, N.Y. 11227.

COLOR Part—(Sundaze System) 25 for One Dollar. Box 1037 Grand Central Station, N.Y.C. 10017.

WEST COAST FANS: Join the Pacific Science Fiction Association. For information, write to: Bill Pond, 4849 49th Street, San Diego, California, 92115.

Delft Stone Pendant and silver chain from Holland. \$2.49. Imports, 326 N. Indiana, Vista, Calif.

Grandfather Clock, German, hand painted. \$3.49. Imports, Dept. D., 326 N. Indiana, Vista, Calif.



YOUR MARKET PLACE

A market is people—alert, intelligent, active people.

Here you can reach 156,000 people (averaging three readers per copy—52,000 paid circulation). Many of them are enthusiastic hobbyists—collecting books, magazines, stamps, coins, model rockets, etc.—actively interested in photography, music, astronomy, painting, sculpture, electronics.

If you have a product or service of merit, tell them about it. The price is right: \$2.50 for a minimum of ten (10) words, plus 25¢ for each additional word.

Advertising Dept., Fantasy & Science Fiction

347 East 53 St., New York, N. Y. 10022

INDEX TO VOLUME TWENTY SEVEN—JULY-DECEMBER 1964

AANDAHL, VANCE: A Crown of Rank Fumiter	Sept.	124	LEIBER, FRITZ: When The Change-Winds Blow	Aug.	105
ADAMS, LOUIS J. A.: Dark Conception	Nov.	46	LETSON, JR., RUSSELL F.: Hag ..	Nov.	94
ASIMOV, ISAAC: Nothing Counts ..	July	80	LEWIS, C. S.: The End of the Wine (verse)	July	74
The Days of Our Years	Aug.	95	LEWIS, RICHARD O.: The Docs ..	Dec.	66
The Haste-Makers	Sept.	91	LIPSYTE, ROBERT M.: Redman ..	Aug.	87
First and Rearmost	Oct.	66	LORY, ROBERT: The Star Party ..	Sept.	117
The Black of Night	Nov.	72	MARSH, WILLARD: Inconceivably Yours	Sept.	109
A Galaxy At A Time	Dec.	45	McINTOSH, J. T.: Poor Planet ..	Aug.	27
AYER, ETHAN: Epitaph (verse) ..	Aug.	73	MOORE, DICK: After Everything, What?	Nov.	17
BEAUCLERK, JANE: We Serve The Star of Freedom	July	114	NOURSE, ALAN E.: A Miracle Too Many	Sept.	19
BECKER, STEPHEN: The New Encyclopaedist II	Sept.	74	OLIN, RICHARD: Oversight	Nov.	95
The New Encyclopaedist III ..	Nov.	62	PURDUM, TOM: Greenplace	Nov.	5
BRACKETT, LEIGH: Purple Priestess of the Mad Moon	Oct.	4	REED, KIT: Orphans' Colony ...	Dec.	37
BRETNR, R.: Little Anton	Oct.	42	ROGERS, THOMAS: Redman	Aug.	87
BUCK, DORIS PITKIN: From Two Universes (verse)	Dec.	36	RUSS, JOANNA: "I Had Vacantly Crumpled It Into My Pocket Wilderness Year	Aug.	12
BULGAKOV, MIKHAIL: The Fatal Eggs (short novel)	Dec.	74	SHARKEY, JACK: Breakthrough ..	Nov.	34
DAVIDSON, AVRAM: Books	July-Nov.		SHORE, WILMA: A Bulletin From The Trustees	Aug.	5
Where Do You Live, Queen Esther?	Nov.	65	SMITH, ADAM: The Third Coordinate (novelet)	Nov.	98
DEFORD, MIRIAM ALLEN: Slips Take Over	Sept.	30	SMITH, HOGAN: The Year Of The Earthman	Oct.	76
DICK, PHILIP K.: Cantata 140 ..	July	5	SMITH, PHILIP H.: A Miracle Too Many	Sept.	19
DISCH, THOMAS M.: Nada	Aug.	54	ST. CLAIR, ERIC: Olsen and the Gull	Sept.	41
DORMAN, S.: The Deepest Blue in the World	Sept.	102	SUTHERLAND, JOHN: The Struldbrugg Reaction	July	91
DRAKE, LEAH BODINE: All-Hallows (verse)	July	79	THOMAS, THEODORE L.: Balloon Astronomy	July	66
ETCHISON, DENNIS: A Nice, Shady Place	Aug.	74	The Red Cells	Aug.	72
FITZPATRICK, R. C.: On The House	Nov.	82	Carbonaceous Chondrites	Sept.	47
GOULART, RON: Chameleon	Sept.	4	Stomata	Oct.	33
Books	Dec.	20	Plant Galls	Dec.	35
HAMILTON, EDMOND: The Pro ..	Oct.	21	TUSHNET, LEONARD: In the Calendar of Saints	Aug.	113
HARRISON, HARRY: Portrait of the Artist	Nov.	86	VANSCYOC, SYDNEY: One Man's Dream	Nov.	53
JANIFER, LAURENCE M.: Elementary	Sept.	81	WALTON, BRYCE: Final Exam ..	Dec.	55
KAGAN, NORMAN: Four Brands of Impossible (novelet)	Sept.	48	WEBB, RON: The Girl With the 100 Proof Eyes	July	109
KERR, WALTER H.: Treat (verse) ..	Nov.	33	WELLEN, EDWARD: Buffoon	Dec.	5
Somo These Days (verse) ...	Dec.	44	WILSON, GAHAN: The Scientist and the Monster	July	67
KNIGHT, DAMON: Maid to Measure	Oct.	34	YOUNG, ROBERT F.: The Second Philadelphia Experiment ..	July	62
KURLAND, MICHAEL: Elementary Lafferty, R. A.: The Man With the Speckled Eyes	Sept.	81	In What Cavern of the Deep ..	Oct.	82
LAMB, TONI HELLER: The Happy Place	Dec.	27	ZELAZNY, ROGER: The Salvation of Faust	July	76

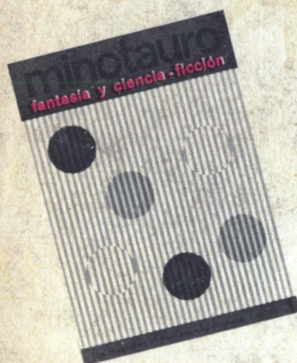
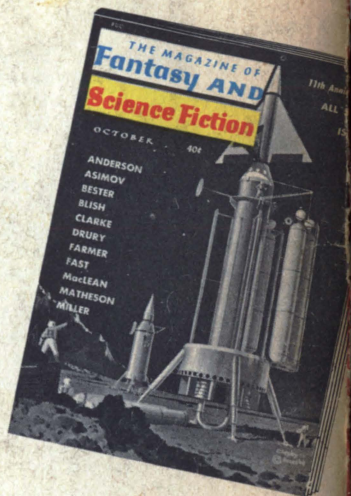


The Imprint of Quality

(since 1937)

THE MAGAZINE OF **Fantasy AND** **Science Fiction**

Vivid writing, compelling stories, and boundless imagination have earned F&SF its reputation as tops in the field. Every month tales of new worlds and the exciting people who discover them, by such outstanding authors as Theodore Sturgeon, Alfred Bester, Robert A. Heinlein, Isaac Asimov, John Collier, Robert Graves, and many others.



**Spanish
Edition**



**German
Edition**



**French
Edition**

Joseph W. Ferman, Publisher

MERCURY PRESS, INC. • 347 East 53 Street, New York, N. Y. 10022