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Health Control laws, mandatory sterilizations,
computer-directed robot surgeons...all part of a
21st-century world that is immunizing its way to disaster!



The BLADERUNNER

ALAN E. NOURSE



**"Doc!
It's a Trap!
Move!"**

Billy saw the dark form of the police copter concealed in the shadow of the ventilators. At his first shout a blinding light flared from it... flooding the roof.

He ducked back toward the stairwell as Doc's heli-cab lifted off. He turned to run, but his bad foot gave way, sending him sprawling.

Then a policeman had his arms pinned behind his back. "That's all buddy," he said.

Billy shrugged. At least Doc had got away—no telling *what* the cops would have done to him for taking out a kid's tonsils!

"... A frightening vision of the potential disaster inherent in a computer-controlled health control program!"

—Seattle Times

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B for Tomorrow
The Mercy Men
Psi High and Others
The Universe Between
The Counterfeit Man
Star Surgeon
Rocket to Limbo



THE BLADERUNNER

by

Alan E. Nourse

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PART ONE

BILLY'S STORY

I

It was well past four in the afternoon when Billy Gimp finally woke up, and he knew in an instant that something was wrong with his room.

He sat straight up in bed and peered around him at the squalid little apartment. Dirty clothes lay heaped on every flat surface in the room. The sink was overflowing with unwashed dishes, and the stove, an ancient microwave model, was encrusted, onionlike, with successive layers of baked-on food. None of this, however, bothered Billy; it was purely par for the course, no more nor less upheaval than greeted him on awakening any afternoon of the week. Equally familiar were the streaked and mildewed wallpaper and the bare light bulb hanging from its yard-long cord and swinging slightly in the drafty room. These things all looked as they always looked; it was something else that was wrong, and his awareness of it had been there even before he awoke, just beneath the surface of consciousness.

He rolled out of bed and hobbled across to the room's single window. Pulling back the blind an inch or so, he peered out into the gray light. On the street below, winter shadows were darkening on the light late-afternoon traffic. A few people scurried up the Lower City street as though eager to get in before dark, and a police chopper skimmed past over the tenement rooftops like a vul-

ture searching for carrion. Instinctively, Billy drew back until the copter had passed on and did not circle back—merely a routine patrol. Then he searched the street more closely, but found nothing suspicious. Shaking his head, Billy released the curtain. It was nothing outside that was wrong, it was something *inside*, something very close.

Standing there, now fully alert, he tried to recapture his exact mental state at the moment he awoke. He had been dreaming, as usual, and the dream had been unpleasant, as usual. Someone had been chasing him through a strange and unfamiliar wooded countryside, relentlessly closing the gap on him as he had limped down brush-filled gullies and scrambled over windfallen logs, dragging his bad foot painfully as he went. He remembered vividly climbing up a ridge and down into a logging camp where chain saws had just fallen silent and piles of fragrant pine sawdust were lying about. . . .

Sawdust.

Billy sniffed, and sniffed again. Doc was always saying he had a nose like a hound, and maybe he did, because the smell was there: a faint but unmistakable odor of sawdust in the room. Snapping on the light, Billy dropped to his hands and knees and began searching foot by foot along the baseboards, methodically, certain now of what he would find. A moment later he was rewarded. It was there near the wall between the window and the sink, with an unobstructed view of the entire room: a short metallic stalk emerging like a periscope from the floorboards, with a tiny pile of sawdust beside it. At the end of the stalk, like the head on a kitchen match, there was a glistening crystal bead.

It was a bug, tiny but powerful, with its delicate audio pickups and its wide-angle micro-lens. Quite enough to pick up every whisper, every motion in the room. Billy's first impulse was to crush it with his heel, but he held

back. Destruction of government property was a felony even if it was being used illegally, and with Billy's arrest record this bug was probably as legal as breathing, backed up by seventeen warrants and an airtight court order. He couldn't destroy it. Of course, he could always appeal it. Fifty cents in the corner computer-court might conceivably bring him a privacy injunction—but from Billy's past experience with courts of law, that didn't seem very likely. Even worse, a computer-court hearing might just precipitate a confrontation that could be highly embarrassing for all concerned, and Doc would not like that a bit. Doc never liked embarrassing questions.

Billy sat down on a chair, suddenly aware that he was shaking. The bug meant snoopers, legal or illegal, and either way that meant trouble. The question was: *why?* Was this a random check-scan that could turn up at almost any time in any Lower City flat, or was someone specifically interested in *him?* And if so, why him? There were no recent problems, nothing to draw special attention, he was sure of that. He'd been running blades for half his seventeen years, and he was good at keeping clean, especially since working for Doc. Of course others, less skillful, could have crossed his trail—but who? And even more urgently, what should he do right now, this minute? Doc could be calling him at any moment, and if the phone was also tapped, then the fat would really be in the fire.

The first step, of course, was almost instinctive. He couldn't destroy the bug, but he could certainly foul it. From the dresser he pulled out a dirty black sweater, crossed the room, and dropped it directly on top of the bug. Next he fished a cardboard box out from under his bed and extracted a small transistor radio. With a change of batteries it blared forth with a nerve-jarring screech. He twiddled the dial to find the loudest, most discordant music on the band, tuned the volume up full and set the radio down by the sweater, the speaker just

inches from the bug's ear. It wasn't perfect, by any means; a careful tape analysis could split other sounds away from the jangle of the music, but at least they'd have to work for their data. Next he pulled the phone jack from the wall, rendering the telephone inoperative, and then, more reluctantly, disconnected the computer console. Finally he flopped back in a chair and wiped sweat from his forehead.

It cut his room off from all contact, but now, at least, he had a minute to think. Doc would get a disconnect signal on the phone before he had a chance to be voice-printed. Failing phone contact he might, just possibly, try to patch in a contact on the computer—and that, too would be blocked. Two fails in a row would alert Doc that *something* was wrong, and he'd quit trying, at least for a while. Meanwhile, Billy would have to reach him. But how? According to Doc's standing orders, in case of trouble Billy was to page Doc's personal bellboy unit from a public phone, leave a coded number, and wait for Doc to call back. But if somebody were really snooping Billy in earnest, that could be far too dangerous. Once again Billy wracked his brain trying to think of something that might have put Health Control on his trail. There had been that gall bladder case a week ago, but there was no problem with that, everything had gone fine even though Doc was at his most tense and the anesthetist had been three sheets to the wind all evening. The appendectomy two nights earlier had also gone smoothly, and as for the node biopsy last night, the people had been so happy at the result, and so grateful to Doc for doing it all, that a grievance report seemed unlikely.

Yet the fact remained that the bug was there. Obviously the snoopers had gotten a blanket order to get into the flat below him, and gone to a lot of trouble to drill a hole in his floor. And while it was true that random snooping was becoming more commonplace every

day, the idea that Billy Gimp, of all people, might get caught on an ordinary, routine fishing expedition was too big a coincidence to swallow. Health Control had plenty of reason to snoop Billy, with his record of arrests and narrow squeaks. They knew he was running blades, even though they'd never actually nailed him. And of course it was always possible that Parrot or one of the others had thrown him to the wolves for reasons of their own. Even Doc himself might have blown the whistle, unlikely as that seemed. In Billy's world, even the unlikely had to be considered.

For the moment, obviously, he had to assume the worst: that someone was snooping him for some specific reason. That meant that direct contact with Doc was out, for now. But if Doc had a case lined up for that night, he would have to be reached somehow. Slowly Billy fished clothes from a pile and began dressing, putting on the usual denim trousers and dark long-sleeved shirt he always used for work. He slipped his left shoe on and tied it, then worked his clubfoot into the twisted right shoe with the built-up sole. Crossing to the refrigerator, he found a leftover chicken leg and began munching it as he checked the half-dozen phony credit cards in his wallet. Finally ready, he donned a heavy windbreaker, threw a muffler around his neck and limped across the room to the door.

The stairway and the street, like the hall, were empty. It was almost dark now, and a cold wind filtered down from the Upper City, sending scraps of discarded newspaper dancing along the deserted sidewalk. Billy headed for the nearest public lift. All Lower City phone consoles were bugged, and always required complete identification and credit checks before a call would be put through. In the Upper City sheer volume of use alone prevented such careful authentication; he knew he could get a trouble-call through to Molly with a return number before his fake ID could be traced and the call cut off.

At the lift station he took the slow but generally empty freight elevator up the seventeen stories to the Upper City walkways, then stepped out and made his way northward to the nearest heli-cab station.

As usual, the Upper City was bustling with evening traffic, and the heli-cab station was crowded. Most phones were in use, but two were free to the rear of the station, out of the main traffic flow and near the loading ramps. Billy checked the number of the adjacent phone, memorized it, then stepped into the next booth and shoved a credit card into a slot. When the dial tone sounded, he dialed a number, then waited impatiently as the ringing signal whispered in his ear. An instant later the viewscreen lit up and a girl's face appeared. Her eyes widened as she recognized him. "Billy!" she said.

"Don't talk," Billy said. "There's trouble. Take this number and ring me right back. It's coded." He ran through the code for the adjacent phone's number and then quickly rang off. Somewhere a phone-snooper would be picking up the false charge and filing a complaint, complete with call source and voice-print, but he would be long gone before anybody could get the false data untangled and issue an alert on the misused phone. He stepped into the adjacent booth, rubbing his hands together for warmth as he waited. Finally, after several minutes, the phone buzzed. The screen lighted as he lifted the receiver, and the girl's face reappeared.

"Billy, why are you calling me here? You know that Doc doesn't want any calls to the Hospital."

"I had no choice," Billy said. "Anyway, I used a clean ID."

"Clean my eye," the girl said. "The phone-snooper was right there the minute I hung up. I said it was a wrong number and then had to change lines to call you back. Now what is the trouble?"

"I've picked up a bug," Billy said. "Sometime today while I was sleeping."

The girl's irritation gave way to concern. She was young, in her early twenties, with short dark hair and very blue eyes. She was still wearing her nurse's cap and tunic, though Billy knew she was off duty. "Billy, are you sure?"

"I'm sure, all right, it was sticking right up through my floor." He told her briefly about his discovery. "Whether it's me they want, or just a routine screening sweep, I don't know, but I couldn't take a chance. I had to cut off my phone and computer."

"Yes, of course. And that means Doc can't reach you."

"Not with a snooper on my back." Billy regarded the girl on the screen. "Molly, do you know any reason someone might be onto me?"

"No. We haven't had a problem case in months, and you know how careful Doc is." The girl frowned. "Do you know about tonight?"

"I know he has a case lined up, but I don't know what it is or what he needs for it."

"He told me last night," Molly said. "He has two T&As."

Billy groaned. "More tonsils?"

"Well, the patients can't help it," the girl said. "These children have been sick all winter with infections and tonsillitis. Doc saw them on his way home from last night's case, and set up the surgery for tonight."

"He didn't waste much time, did he?" Billy said.

"They're both infection-free right now, so Doc decided to jump while he could. Anyway, he'll need two complete tonsil setups, with loops, currettes, ether—the works."

Billy nodded. "Okay," he said. "Tell Doc I'm bugged, but I'll get the setups from Parrot and meet you both at the usual place, okay? If I don't show for some reason, it'll mean I've got an agent on me, or some other trouble, and Doc will just have to cancel out."

"Billy, Doc wouldn't like that at all."

"Well, he'd like a run-in with Health Control a whole lot less," Billy retorted. "This isn't exactly legal surgery, you know."

"I know," the girl sighed. "Well, do the best you can, and we'll just hope we see you tonight. And Billy—be careful, whatever you do. Doc may hate to cancel cases, but he'd hate even more to have you in trouble. After all, without you functioning there couldn't be any cases."

II

Outside the station the wind was getting colder, and Billy Gimp pulled his coat and muffler up tight around his neck. A cream-colored ground-cab was just discharging passengers, but he passed it by and started back on foot toward the lift down to the Lower City. Ordinarily Billy would never have dreamed of going to Parrot's any way but by private ground-cab—but this, he decided, was no ordinary evening.

The customary cab ride was not just a matter of Billy's crippled foot, although any extended walking was slow and painful for him. Far more, the cab was a matter of image and status. A bladerunner with a topflight, busy doctor was making money, and people with money never walked, not in the city. What was more, Parrot

himself would begin to get edgy if a bladerunner walked to his establishment too often. After all, Parrot too had certain standards to uphold.

In fact, it had been Parrot's extraordinary reputation that had brought Billy there in the first place. In every underworld there is a hierarchy, and Parrot was tops in his branch of the world of underground medicine. Parrot was far more than merely a supplier of stolen surgical goods, although he was that too. A former army medic, Parrot knew surgical procedures, and he knew what supplies were needed for each kind of case. Unlike many suppliers, Parrot never believed the labels on the surgical packs that came into his hands, stolen from hospital supply rooms all over the city, and he had no faith in their supposed sterility. Each pack he personally opened and inspected, adding extra blades to this one, additional forceps to that one, more sponges for one, double gloves for yet another. Always he allowed for a margin of error, and prepared his packs accordingly before autoclaving them himself for certain sterility. There was no pressing need for a margin of error in the government Hospital surgeries; if a surgeon found something missing at any time, a second pack could always be opened on the spot. But kitchen-table surgery was a different matter. Some docs carried their own extra supplies and some did not, but when the chips were down in the middle of a difficult underground case, that was no time to have to send a bladerunner out for additional supplies.

For Parrot, the care he expended was no labor of love; it, too, was a matter of status. Parrot's clientele was elite, and no one knew it better than Billy Gimp. He had dealt with plenty who weren't, in the course of his seventeen years. His first job as a bladerunner had taught him the difference between good medicine and bad. His doc at that time had been a greenhorn, dreadfully inexperienced and scared to death of detection; his

work had been both overswift and oversloppy. Small wonder that his bladerunner had been equally careless. Cheap suppliers provided dirty dressings and contaminated instruments; the doc had tried to cover by using some of his own supplies stolen from Central Supply at his Hospital, but there were still far too many postsurgical infections, unnecessary complications, even operative and postoperative deaths in those days, and Billy found himself nervously moving from doc to doc, always afraid that some spectacular surgical disaster would drop the axe on his neck as well as the doc's.

And then, three years ago, he had found Doc, and things were suddenly different. Doc could spot contaminated surgical packs from a mile away, and either did his own boiling or turned them back, with short shrift for Billy *and* the supplier. "Tabletop surgery is bad enough without making it any worse than necessary," Doc had said angrily. "The patients are paying me for sterile packs, and that's what I'm going to get them, or your supplier can go whistle."

It had been a novel attitude, in Billy's experience, almost an amusing attitude until it finally dawned on him that Doc was no greenhorn in underground medicine, and really meant what he said: that he wouldn't take or use inferior supplies; from that point on it became a matter of pride for Billy to find him good supplies, and his search for a reliable supplier had become a major quest. Money wasn't the issue; Doc didn't mind paying premium coin if the supplies were good. Doc never argued a price hike with Billy, and soon, to his own surprise, Billy was no longer overpricing the goods to Doc so badly. And then he had heard of Parrot, who allowed no gouging whatever, and who was fussy which doctors he supplied and which bladerunners he dealt with. After long negotiations Parrot had finally, reluctantly, agreed to supply Billy and Doc, on the strength of Doc's legiti-

mate reputation as a topflight Hospital surgeon, and Billy's reputation as a runner who kept his nose clean. There were certain conditions, however. The first was that no one except Parrot did any price gouging, and the second, even more stringent, was that no one dragged a dead fish across Parrot's trail for *anything*.

All of which explained why, on this particular evening and under these particular circumstances, Billy Gimp turned his back on the ground-cabs lingering outside the heli-cab station and proceeded on foot to find Parrot, to arrange for two T&A packs for the evening's work and to find out what, if anything, Parrot might have to say about the bug in Billy's room. Billy worked his way through the light foot traffic, picking down-ramps and elevators that carried him down from the Upper City of high-rise apartments, green-belt parks and swift monorails and heli-cabs crisscrossing the sky to the Lower City of darkened streets and alleys, tenements and cheap storefronts. Ground-cabs whispered by him on the ragged, pot-holed Lower City streets; in some places he was the sole pedestrian. And as he walked he kept a close watch to be as sure as possible he was not being followed.

At last he arrived at the place he sought: a narrow, decrepit building around the corner from a main Lower City arterial, with the crowded and dusty window of an antique shop facing the street. Inside, a single customer was poking around in the dusty rubble; Billy feigned interest in some ancient vases and pewter cups until the customer gave up and left. Immediately a wizened granny popped up from behind the counter and peered at Billy through cataract lenses. "Late tonight, eh?" she said finally. "Thought you weren't coming."

"I got stalled," Billy said. "Is Parrot around?"

"He's down in the shop." The old woman brought out a pad and pencil. "Got an order for me?"

"Yes, but I need to see Parrot about it."

Granny wrinkled her mouth. "Pretty fussy these days, aren't you? Well, go on down, just don't waste his time with complaints."

Billy pushed aside a doorway drape, and hobbled down a narrow stairway into a subcellar below and to the rear of the storefront. Suddenly the shabbiness of the upstairs was gone, and he entered Parrot's warehouse-like workroom, fastidiously clean, with shelves piled high with green surgical packs, a huge central worktable surrounded by instrument bins, and a bank of autoclaves hissing steam along the back wall. Within half a minute a short, fat man with a doughy face and grotesque little half-glasses came out from the back room. Parrot beamed when he saw Billy; except for his huge curved nose and a hint of wariness about his eyes, Parrot seemed the epitome of the jovial fat man. "So you walked tonight, eh, Billy? How come? Doc forget to pay you?"

"Doc never forgets to pay me," Billy said.

"Ah, that's very good. Then we can settle accounts for last night." Parrot paused, punching at the computer console on the table. "That'll be two hundred in markers or four hundred in legal credits."

"Markers," Billy said. He pulled a handful of red chips from his pocket and piled them on the worktable. Parrot picked them up, dropping them one by one through a coin scanner. Then he pocketed all but one which he left lying on the table.

"You've got a bad one there, Billy." Billy replaced it with another. As he reached for the rejected marker, Parrot flipped it deftly into his own hand. "Wouldn't want it to get back into circulation, would we, Billy?" he said. "No, not so good, that. Now, then. What's for tonight?"

"Two T&A sets," Billy said. "And a can of ether. For some reason, Doc wants to use ether."

"For tonsils?" Parrot clicked his tongue. "That's a little odd."

"I don't argue," Billy said. "Those were Doc's orders, so that's what he wants. Just give me the locker key and see that the stuff is there by nine o'clock."

Parrot looked up over his half-glasses. "You're very sharp with me tonight, Billy. Something wrong?"

"You'd be sharp too if you woke up with a bug in your room."

"I see." Parrot pursed his lips slowly. "Well, now. A bug, you say? Now that is very interesting." He motioned Billy to a seat. "Tell me about this bug."

Billy told him. Parrot listened intently, scratching his chin, his eyes half closed. Finally Billy finished and Parrot looked at him.

"Anything in addition to the bug itself?" Parrot asked.

"Not that I could see. I didn't try the phone or the computer to find out."

"That was very wise. What about a stakeout? Anybody following you? Mail tampered with recently?"

"I don't get mail," Billy said.

"Then what about other things? Doc having trouble with his cases lately?"

"Not much. Doc doesn't usually have trouble, and when he does he takes care of it."

"Yes, of course, your Doc is one in a thousand. And nothing has changed? Doc's nurse? The anesthetist?"

"The nurse is okay. The anesthetist is drunk about half the time, so Doc and I have to pinch hit sometimes. But where do you find an anesthetist who doesn't get drunk? Nothing different there." Billy paused. "Of course, somebody else could have fingered me."

"Ah, yes," the fat man said. "Like me, I suppose." He shrugged, chuckling. "But if so, I would hardly tell you about it, would I?"

"No," Billy said sullenly.

"Nor would I want you to be coming around again either, eh? No. Well, you add it up, Billy. If I ever wanted you to be nailed you wouldn't be coming around, you'd be nailed. So let's forget about me fingering you. The real question is, is Health Control really after you, or is this just a screening check that you happened to get caught in?"

"That's what I'd like to know," Billy said. "If it's a routine screener, I could at least use my phone. Until I know, I'm cut off from everything."

"Well, maybe we can help you find out," Parrot said. He reached forward and pushed an intercom button on the worktable. "Phil? Why don't you come out here." Parrot looked up at Billy. "You know Phil Hawk, don't you? Runs blades for Doc Gentry out of Hospital Number Eight. He's not feeling so good, got that Shanghai flu that's going around, so he's holed up here where I can keep an eye on him."

A door at the back of the shop opened, and an extremely thin, pinch-faced youth of fourteen emerged. He gave Billy a wan smile. "Hi, Billy. How things going?"

"Not so good," Billy said. "But you don't look so hot either."

The youth sat down, visibly shivering in a long, ragged bathrobe. "Don't get too close to me," he said, "there's been lots of this going around the last week or so." He looked up at Billy. "You got troubles?"

Parrot nodded. "Tell him, Billy."

Billy told the youth about the bug in his room. Phil Hawk listened, then looked over at Parrot. "You see?" he said. "I told you something funny was going on."

"What do you mean?" Billy said.

"I mean you aren't the only one," Phil replied. "I had the same thing last week, and so did my buddy Max—you know Max? They even hauled him in for a bunch of questions. But mine must have been a screening sweep, because two days later it was gone."

"Anybody else you know of?" Parrot said.

"Not personally, but the place I hang out there's a lot of talk."

"It's more than talk," Parrot said. "I know of twenty-five cases in the last month for sure, and they couldn't all be screening sweeps. And it's not only bladerunners, either."

"Then who else?" Billy asked sharply.

Parrot smiled. "Like me, for instance."

"You mean you're bugged right *now*?"

"For the last two weeks, to be exact."

Billy half rose from his chair. "You could have said something—"

Parrot laughed. "You're not talking into a bug right now, if that's what's worrying you. Bugs can be spoofed if you know how. The thing is that the bugging has been getting much heavier in the past few weeks, and it's Health Control that's doing the snooping. A couple of odd things, though: I haven't heard of a doctor being bugged during this period, and I haven't heard of a single arrest. A couple of guys like Phil's friend Max have been hauled in for questioning, but they've all been released without any charges. Right, Phil?"

The youth nodded. Billy blinked at them. "Then why the snooping?" he said.

"If we knew, we wouldn't have to worry," Parrot said. "All we know now is that something's going on. The next step is to find out what. Well, maybe we can. I have eyes and ears. I have some people in the clinics, and even a few contacts in Health Control administration." Parrot looked at Billy over his half-glasses. "Suppose I do a quiet check run on you and your Doc, your nurse, the anesthetist, your whole setup. If Health Control is really interested in *you*, then one of two things will happen. Either we'll push them to move, or we'll find out *why* they're onto you without pushing. Either way you'll be ahead."

Billy studied the man for a long moment. Then he nodded his head. "That sounds good," he said. "How long will it take?"

"By the time you're back tomorrow to pay for the T&A sets I should know something. Meanwhile, step *very* quietly."

"As quietly as I can," Billy said. "Doc's got these cases tonight, and I think something lined up for Thursday. I'll be back in the meantime." He stood up to leave. "How soon can we get those T&A packs?"

"They'll be in the locker within two hours," Parrot said. "The truck's about to go out now. You've got the key. Put the used packs back in the locker, and bring me the key again tomorrow along with the money. Three-fifty in markers, or five hundred in credit. Either way." The fat man paused. "Do you know where Doc's case is tonight?"

"Trenton Sector, I think. Why?"

"I've got another call for him." Parrot opened a card case, handed an address card to Billy. "This just came in a few minutes ago. I thought of Doc because it's near his Hospital."

Billy frowned. "Doc isn't looking for more business right now, he's got more than he can handle as it is."

"I'd like your Doc to see this one just the same. It's an emergency, a very sick kid. Headache, high fever, stiff neck—just like a number that have been turning up lately, with some of them dying. Ask him to make it if he possibly can."

"Well, I'll ask him," Billy said. "Maybe when he's finished with these tonsils—"

"Good," Parrot said. "See you tomorrow. Meanwhile, I'll get to snooping some myself."

Most of the lights were out in the antique shop above as Billy passed through, but the aged woman was waiting to lock up behind him. Out on the cold street he hesitated, then turned in the direction of his flat. He was

thinking of food, a change of clothes and preparations for the night's work, and he did not notice the cream-colored ground-cab that whispered past him on the street and turned onto the main Lower City thoroughfare ahead.

III

It was well past 9:00 in the evening when Billy Gimp stepped down from the monorail two blocks from the Health Control Hospital No. 7 and made his way on foot through the thinning Upper City crowds toward the cavernous hospital entrance. Back in his room he had found that the bug was still there, and decided against spending any more time there than was necessary. After a quick shower and change of clothes he checked to be sure he had Parrot's locker key in his pocket. Then he headed for a nearby Lower City bar and grill for dinner.

Two other bladerunners were just leaving as he reached the place, and they paused to talk a moment, but neither of them had been bothered with bugs and neither of them was aware of any special increase in Health Control alertness. Once inside with a hamburger and French fries in front of him, Billy turned his conversation with Parrot over and over in his mind as he ate.

There was no reason to doubt what Parrot and Phil Hawk had told him—yet the information made no sense

to Billy. If more and more bladerunners were being bugged for some reason, then why were there not more arrests? The Health Control laws, passed almost twenty years before, were perfectly explicit. All forms of legal health care were provided in the government-operated Hospitals, Emergency Rooms and Outpatient Clinics, and only those patients who could qualify under the Eugenics Control laws were eligible for health care at all. The whole vast underworld of black-market medicine, of which bladerunners like Billy were such an integral part, had grown up in the wake of those Eugenics Control laws, bringing totally illegal health care services to the multitudes of people who could not—or would not—qualify for health care on a legal basis. Hardly a doctor could be named who had not taken a hand in underground medicine at one time or another, despite the watchful eye of Health Control police and the heavy penalties that could be levied when a physician or a bladerunner was caught and convicted—yet Health Control, to date, had been able to curb only a small fraction of the total amount of illegal medical practice. There were occasional arrests, widely publicized in the press and on TV, and even occasional convictions, but the Secretary of Health Control himself made no pretense that the practice of illegal medicine was declining.

Considering all this, it was not surprising that Health Control police might be engaged in an increasing pattern of screening sweeps in search of new evidence of illicit medical activities. Nor was there any better way of gathering such evidence than by bugging bladerunners. No one was more deeply involved in all the illegal aspects of underground medicine; indeed, without bladerunners the whole intricate system of illicit medical practice would fall apart at the seams. The Health Control snoopers knew perfectly well that a bladerunner caught and hung with a transponder, so that he was continuously spied upon, was a bladerunner—and a doctor—out of the

business of underground medicine, at least for a while. But if arrests were not being made, what was the purpose of the increasing surveillance?

It made no sense to Billy, and he finished his meal in a gloom of depression. He could not throw off the premonition that there was more to his own bugging than met the eye, that dangerous trouble was somehow impending. Yet he stubbornly refused to allow it to worry him into immobility. It was, after all, as much Doc's worry as it was his, and Doc had a case tonight and required Billy's help. Maybe he would have some idea what had brought the bug about, or what Billy might do about it. At any rate, until he saw Doc, his evening's work was cut out for him. Checking the time, he paid his bill with a legitimate credit card and stepped out on the street to hail a ground-cab.

The procedure he followed was so familiar that he could have done it in his sleep. At his direction the ground-cab found a nearby Lower City arterial and began working its way up ramps and viaducts into the heavy Upper City traffic. Catching a north-south freeway, the cab sped northward to a Center City heli-cab station, as Billy kept a watchful eye out the back window. Satisfied that he had not been followed, he paid off the cabbie at the passenger loading ramp of the station and made his way back to the banks of twenty-four-hour baggage lockers. Here he inserted Parrot's key unhesitatingly into a locker near the floor and drew out the small blue flight bag he found inside. He did not know precisely how Parrot got the surgical packs transported from his shop to the baggage lockers, and he did not care to know; Parrot never failed to provide them on time by this indirect means, nor had he ever failed to pick up the used instruments Billy would leave there when the surgery was over. This was the way Parrot chose to work, and the less detail he knew about it, Billy thought, the better. With the flight bag securely under

his arm he had walked outside the station, crossed the freeway on a pedestrian ramp and caught a southbound monorail for downtown and Hospital No. 7.

It was getting late, and he had been moving briskly, but now, half a block from the Hospital entrance, he slowed up and peered ahead. The sidewalk and street in front of the Hospital were filled with a milling throng of people, and a block away Billy could hear the shouted slogans and sing-song chants of a demonstration going on. Several dozen people were crowding the street and blocking traffic, their heads and beards half shaved, placards waving, long flowing robes sweeping the ground. Some of the demonstrators were stopping passersby, handing out literature and calling attention to their placards. DESTROY THE CLINICS!!! one sign said in vivid orange letters. DOWN WITH HEALTH CONTROL! another implored. TRUST NATURE, NOT DOCTORS. As Billy approached, a wild-eyed man in a ground-length robe bore down on him, thrusting a wad of printed sheets into his hand. "No medicine is good medicine, brother!" the man shouted. "Boycott the doctors *now!*"

At the Hospital entrance a handful of Health Control guards stood by with tear-gas guns at ready, keeping the crowd of demonstrators out of the Hospital doorway by main force and watching for any disruption that might spark violence. Billy ducked past one of the guards and walked into the main lobby of the Hospital building. It was a huge concourse, with admission offices to one side and several banks of elevators to the Hospital inpatient rooms and outpatient clinics against a far wall. Most of the lobby, however, was filled with chairs and benches, as droves of potential patients stolidly waited their turn at the authentication desks. Occasionally white-coated doctors or nurses with tip-tilted caps passed through; an elevator opened to discharge a man in a wheelchair into the lobby, followed by an attendant. Billy crossed the

lobby to an alcove where magazines and books were for sale and began leafing through a paperback as he kept his eyes on the bank of elevators.

As usual, he was early, and as usual, he saw three or four other bladerunners enter the the lobby, taking seats or stopping at one of the shopping stalls. They saw him, but by common code there was no acknowledgment other than the slightest narrowing of eyes or lowering of eyelids. Certainly it appeared that the screening sweeps were not interfering much with business, yet Billy felt himself growing more and more nervous as he waited. Then, with a sigh of relief he saw a tall, gray-haired man step from the elevator with a crowd of people and make his way across the lobby toward the door. As the man passed the magazine stand Billy fell in a few discreet paces behind him.

At the door Doc stopped and frowned at the still-growing crowd of demonstrators. As he pushed past the guards, a large man with a fearsome half-shaved beard and dark, angry eyes suddenly moved into his path. "Here's a doctor!" the man shouted. "Walking out with his bloody hands! I've seen him here before—"

Others near the man turned and began converging on Doc. A middle-aged woman with a placard thrust her face up into Doc's. "Going on an errand of mercy tonight, Doctor?" she screamed. "Or do you just do your dirty work for the government?" Doc tried to push his way past the woman, but the big man moved to box him in, forcing him to a standstill.

"How does it feel to have blood on your hands, Doctor?" the man shouted. "What work have you been doing today in that Palace of Blood and Death? No, don't try to run away, these people here want answers!"

Billy moved, shouldering through the crowd of placard-wavers. At the same time a blue-uniformed Health Control guard pushed his way up to Doc's side, night stick at ready. "All right, that's enough!" the guard

shouted. "Move on, you people, out of the way there!"

The man with the half beard turned his attention from Doc to the guard, and a long curving knife appeared from beneath his robe. Doc turned aside, pushing away through the crowd. His eyes caught Billy's, and Billy fell in ahead of him, running interference with surprising agility. A scream went up behind them as a ground-cab inched past. Billy whistled it down, then stepped aside as Doc opened the door and plunged in. The door slammed and the cab moved off as Billy turned his attention to the street again, still clutching the blue flight bag under his arm. Somewhere in the distance a siren was howling now, and a police copter appeared from the north and came down to hover over the demonstration that was fast turning into a riot. Billy turned and ran in the opposite direction, away from the growing crowd. A block away he came to a thoroughfare and finally flagged down a passing ground-cab. He gave a nearby address and then settled back with a sigh. That had been close, altogether too close. He had seen plenty of Naturist demonstrations before, but never one quite so close to violence. And with Doc caught right in the middle, it could have turned into a disaster.

Ten minutes later the cab drew up to a corner coffee shop. Billy paid his fare, and walked inside. To the rear, in a booth, he spotted Doc and went to join him. Doc still looked shaken. "Boy, I was glad to see *you*," he said.

"That was an ugly crowd," Billy breathed.

"They're getting worse every day, but that was the first time they ever nailed me as a doctor."

"Yes, how did that happen?"

"I don't know. Probably just chance; I'm coming out there about the same time every night. Or maybe they're beginning to single out individual doctors to harass. There's no telling what the Naturists will do next. Some of their people are real fanatics."

"You're telling me! That big guy had a knife."

"A lot of them do. They say it's part of their religion to go armed, and I guess it's legal as long as they keep them out of sight."

"Religion!" Billy said scornfully. "How can they call themselves a religion?"

Doc sighed. "I don't know," he said. "Some of them are just rabble-rousers, but others are in real earnest. They claim that medical care is thwarting the will of God, working against nature, and they want all health care completely banned, whether people qualify for it under the Eugenics Laws or not. Above all, they want the qualification provisions thrown out."

"You mean the mandatory sterilization requirements?"

"Exactly. And that's where they get a lot of their support. Lots more people than just the Naturists are balking at the sterilization laws these days." Doc smiled wearily. "As we well know. You all set for tonight?"

Billy pointed to the bulging flight bag. "I got everything Molly told me to. Where is she, by the way?"

"She was called back on duty for a late case, a gall bladder or something. They were just closing up when I left, so she'll be along pretty soon. Meanwhile, I'm starved."

Doc picked up a menu card, punched it for a steak and coffee and dropped it down the slot. Two minutes later he opened the service unit to take out the freshly delivered order. For a few moments he ate in silence. Then he said, "Okay, now tell me about this bug."

"Better have some privacy first," Billy cautioned.

"You're *really* nervous, huh?" Doc fished out a coin and dropped it into a slot to activate the booth's electronic muffler. Immediately the blaring juke-box noise died to a whisper and the rattling of dishes and other sounds around them vanished. "Now, then," Doc said.

Billy told him about his discovery of the bug, his call

to Molly and his talk with Partot. Doc listened to the story intently, nodding once or twice but saying nothing. "Anyway, I was in a bind about contacting you," Billy finished. "Until I knew for sure what was going on I didn't dare try to make a direct contact, so I called Molly instead."

Doc nodded. "That was fine, under the circumstances. She got word to me right away. But that's not going to help us tomorrow or the next day if that bug stays there."

"Well, why do you think it's there?" Billy demanded.

Doc chewed his lip. "I wish I knew. Of course, it *could* be a random screening sweep, but that seems pretty doubtful to me. I've seen how these Health Control snoopers work, and they don't do much of anything without a solid reason behind it. If they're watching you all of a sudden, that means they've got a toe in the door of our operation, somehow, whatever may have tipped them off. If there's a new policy of increased screening sweeps, there must be some reason for that, too, and if they're doing it without making arrests, then it isn't by accident, it's by intent, whatever the purpose may be. But I wonder if maybe we're looking too far afield."

Billy looked up sharply. "What do you mean?"

"I mean that I could be the one that's tipped them off to something funny. I've been monitored on every one of my Hospital cases this week and most of last week too. All of a sudden they're watching what I'm doing there very, very closely—and I'm not sure why."

"Have you been having trouble with your cases?" Billy asked.

Doc looked at him. "Trouble? No . . . not exactly. I've been doing more or less routine transplants, and I have a better record on them than anybody else at Number Seven Hospital. But lately I've also had to take some risks. It's the only way I can figure to outfox the pantograph and computers, and a couple of times lately I've

had some narrow squeaks as a result." Doc chuckled. "It's hard enough to do heart surgery at all, without deliberately trying to do things the wrong way. And I'm afraid the monitors are getting suspicious at the number of things I seem to be doing wrong."

Billy whistled. "Doc, you're going to start having bodies in the laboratory if you don't watch out. Can't you just settle for doing midnight cases and let the Clinic work slide off your back?"

"Not as long as the Hospital has a neuropantograph picking my brain during surgery, I can't," Doc said fiercely. "Doing the work is one thing; being forced to teach a robot to do it is something else. Look, don't get confused, I'm not letting anything bad happen to my patients. I couldn't do that, pantograph or no pantograph. It's just that the computer has to count on consistencies in order to program a robot, and I'm throwing in as many inconsistencies as I can, without doing the patient any harm. Sometimes I just take longer with a procedure than necessary, or I reverse the order of certain steps, or leave certain steps out, or do things slightly differently from one case to the next—anything so that the computer can't pin down a coherent, consistent pattern of action. I make random mistakes—never *bad* mistakes, just little ones—and then I use randomly chosen remedies, never the same remedy for the same mistake twice in a row. All so that the computer can't program a robot to do a safe transplant procedure by learning from me how it's done. Aha, here's Molly."

A tall, dark-haired girl had come into the coffee shop and was making her way back to their booth. Although she wore no cap, the dark blue cape with the red satin lining and the traditional white uniform marked her as a registered nurse. Her blue eyes were wide with concern as she slipped into the booth facing Doc and Billy. "Oh, I'm glad you got away when you did," she said breathlessly. "I had to leave by the parking garage, and even

then it took forever to get through the police cordon—”

“Police cordon!” Billy said. “What happened after we left?”

“Those Naturists outside the Hospital—somebody pulled a knife and it turned into a full-blown riot. Night sticks, tear gas, half a dozen police copters herding bystanders away. The demonstrators broke through into the lobby and were trying to occupy the business office before the police finally got them out; they must have arrested a dozen of them. Three patients and one doctor injured, according to one report. If anything like this happens again, I’m afraid there’s really going to be trouble.”

“It’ll happen again,” Doc said somberly. “Basically the Naturists are a violent group, and when certain ones of them say ‘Destroy the Hospital’ they mean literally take it down, brick by brick.” The older man shrugged his shoulders. “Well, that’s Health Control’s problem. We’ve got problems of our own. Billy has the packs, right?”

“Two T&A packs.”

“Then let’s get moving.”

Once outside the coffee shop, they caught a ground-cab to the heli-cab station a few blocks north. The place was crowded with early-evening travelers, and the small interurban helicopters were landing and taking off in rapid sequence like bees around a hive. Doc dialed for an auto-pilot model, and they joined the line waiting at the designated landing pad. Doc stood first on one foot and then the other, impatient and irritable, while Billy clutched the flight bag with the surgical packs tightly under his arm. Only Molly Barret appeared calm and unruffled as they waited. Doc kept peering critically at Billy over his glasses. Finally he said, “When did you scrub your hands last?”

“This afternoon when I woke up,” Billy said.

"Nails and all? Looks to me like you've been shoveling coal," Doc said.

Billy looked at his hands, which were anything but clean. "Well, I can't help it if they get dirty. I scrubbed them."

"How long?"

"Maybe five, ten minutes."

"I thought I told you twice a day for fifteen minutes at a time," Doc said. "What would you do if you had to step in and help me in an emergency?" Billy spread his hands helplessly. "Well, you might have to any time," Doc said testily. "When I tell you I want you surgically scrubbed, I mean surgically scrubbed. How about cap and mask? Did you bring them for yourself?"

"You didn't tell me to bring them," Billy said.

"Didn't tell you! Do I have to tell you every single time?"

"Well, I just forgot."

"Oh, great. I wonder what else you forgot."

Molly interrupted. "It's about our turn," she said.

"Why didn't you remind him about a cap and mask?"

Doc asked her.

"I didn't think of it."

"You shouldn't have to, but if this idiot can't remember fundamentals like scrubbing his hands and bringing cap and mask, *somebody* has to remind him."

"He's not an idiot," Molly said defensively. "You'd forget things too if you woke up and found a bug in your room. He's just had a bad day, is all. And it's too late to worry about it now. That's our cab coming in."

Moments later the little heli-cab landed on the pad and discharged passengers. Doc, Billy, and the nurse climbed aboard. The rotor continued idling until Doc had address-coded their destination into the miniature computer console; there was a series of clicks as the computer searched all the legal heli-cab channels between the pad and the designated destination and locked

in on a flight plan. Then the little cab lifted slowly into the air, circled twice awaiting electronic clearance for entering the traffic channels, and then began moving south and west, steadily gaining altitude.

They were airborne for ten minutes before anyone spoke. Doc kept peering at the 360-degree radar scan pattern on the cab's console, double-checking that no one was following them. Billy sat hunched and tense, nervous as always when he was farther than jumping distance from solid ground. "Is the anesthetist going to meet us there?" he asked finally.

"Nope, not tonight."

"You mean Trautman refused to come?"

"He wasn't asked," Doc said. "He's been drunk the last three times, and I decided that was enough. I can't afford to take that kind of risk."

"Well, what are you going to do for anesthesia? I got the ether, like you asked."

"Fine," Doc aid. "I think we'll let you give it, too."

Billy stared at the surgeon. "*Me* give it! I don't know how to give anesthesia."

"Then it's time you learned," Doc said. "You've certainly watched Trautman often enough. You know the reflexes to check, and I can coach you, just as long as I don't have to fool with the ether mask while I'm working."

"Why not have Molly do it?"

"She's got to be scrubbed in and helping me, right Molly?"

The girl nodded. "But Billy, this is a great chance for you," she said. "If you could learn to replace Trautman, you could be a real part of the operating team—couldn't he, Doc? There aren't many bladerunners who even get to observe, much less help. And you're certainly smart enough to learn."

Billy stirred uneasily and scratched his nose. "I don't know," he said finally. "Maybe for an extra hundred—"

"No dice," Doc said. "No extra pay while you're learning. You need the experience."

Billy looked at him. "Don't give me that, Doc. You need somebody to give anesthesia, that's the truth of it."

"Oh, honestly!" Molly broke in. "It's more for your own good than anything, Billy. You get a chance like this and you sit and bicker about money! What's wrong with you, anyway?"

"Well, I've got to make a living, too," Billy said unhappily.

"You're making a handsome living just running packs, and you know it," Molly said. "Good lord! I don't get paid at all, and Doc barely breaks even on these cases as it is. You have to hang around until the instruments are ready to go back anyway. Why shouldn't you make yourself useful?"

"But he pays Trautman three hundred—"

"What's that got to do with it?" Doc said. "Trautman is an M.D. anesthetist, and you're just a bladerunner. Now you can take it or leave it: help out in return for learning, or don't help out and we'll pack up and go home. On my patients you learn on your own time."

Billy was silent for a long moment, staring out at the city lights passing below. Then, slowly, he said, "Okay, I'll do it—tonight. But when *are* you going to pay me extra?"

"About the time I pick you over Trautman by choice," Doc said sourly.

"You're a real prince," Billy said. He settled into a sullen silence, staring out as the helicopter moved on through the night. Minutes passed, and Doc leaned back in his seat, closing his eyes. Then Billy said, "Doc?"

"Yes?"

"When are you going to fix my foot, Doc?"

"Oh, for God's sake," Doc said. "How many times do I have to tell you that I'm no bone surgeon?"

"You're not a throat surgeon, either, but you're doing T&As."

"Well, fixing a crippled foot is a different matter."

"But Doc, you *promised*. Way back when I first started with you, you said you'd arrange it. Molly remembers, don't you, Moll? You said you'd get somebody to fix it for me."

"Okay, fine, so I promised. And I will, too, when I can find the right man and the circumstances are right. Right now I'm so loaded with work I can't think straight, with all these underground patients, and fixing your foot would throw you out of it for weeks."

"But, Doc, it's *my foot*, not just some underground patient's. And the longer I wait the tougher the surgery will be, that's what all the books say."

"Well, maybe so and maybe not." Doc sighed. "I just don't know enough about it, you need an expert bone surgeon to tell you." He was silent for a moment. "Look, I'll try to get it arranged, okay? The first chance I get."

"That's what you said last time," Billy persisted.

"Well, we'll talk about it later. Maybe we can get something rolling. Right now we're about to land, it looks like."

The heli-cab had begun to lose altitude as they passed over the less built-up interurban areas of the city between Newark Sector and Trenton Sector. The city lights spread out below them in all directions like a vast iridescent blanket. From time to time the auto-pilot let out clicks and chatters as electronic relays closed and opened and the cab homed in on the designated address code, all the while maintaining a 360-degree surveillance of the surrounding sky. Occasionally another cab moved past, rising or settling down, but none approached or followed. Heli-cabs ordinarily were used only for long-distance inter-Sector passage, distances that would be impractical to travel by ground-cab or

rapid-transit ground services. But where they were used, the little copters were swift, efficient, and exceedingly safe. Now, less than thirty minutes from their departure, the heli-cab dropped down, entering a low-level approach pattern and finally settling down on the lighted rooftop pad of one of the large modular apartment buildings so characteristic of the Trenton Sector. Moments later the three had disembarked, and a figure moved out of the shadow of a ventilator system to greet them as the heli-cab lifted away on its auto-pilot and vanished into the sky to the north again.

"That you, Doctor?" the man's voice said.

"Who wants to know?"

"Merriman. I'm John Merriman. You only met my wife, Elsa."

"Fine," Doc said. "Let's go on in, we're a little late. Billy, bring those packs along."

Going down on the elevator there was no talking. The car stopped at the forty-third floor, and they stepped directly from the elevator into the entry hall of a large apartment module. A woman and two small children were waiting to greet them. The children, apprehensive, clung to their mother. "Come in, Doctor," the woman said. "We were afraid something had happened."

"Nothing serious," Doc said. "Miss Barret was late getting away from the Hospital." He indicated Molly and Billy. "This is my nurse, and my anesthetist; they'll be helping me. Now, how are these children? No new colds or fevers starting up?"

"Nothing," the woman said.

"You've actually checked their temperatures?" Doc said. "Okay, then, let's have a look at them."

From his bag Doc produced stethoscope, otoscope, and tongue blades. The older child, a boy of seven, was first. Doc had him strip to the waist and then examined him carefully, checking his ears and throat and listening to his chest. The little girl began to cry when her

turn came, but Doc gently shushed her, sitting down and talking to her a bit, showing her how the stethoscope worked and letting her blow the otoscope light on, and presently she allowed him to check her. When he had finished he looked up and nodded to Molly. "Why don't you take them into the other room for a while and tell them what to expect so they won't be scared," he said. "Billy, you get things set up in the kitchen. I want to talk to the parents for a minute." As the others left, he turned his attention to the adult Merrimans. "I've already talked with Elsa here," he said, "but I want John to hear me too. A tonsillectomy and adenoidectomy is not a terribly complex surgical procedure in children of this age, but it's not entirely innocuous either, and problems can turn up under the best of circumstances. To be perfectly honest, I have to warn you that ideally this surgery should be done in a Health Control Hospital under the most choice conditions. We could use a safer anesthesia there, we'd have better control of any surgical problems that might develop, and the children could remain under Hospital observation until they were fully recovered from anesthesia and through the initial danger of bleeding. Doing the surgery here, I can't offer you the best, most ideal circumstances. I don't anticipate trouble, and I'll do everything I can to avoid it, but there is some degree of additional risk that you should know about."

"Doctor, we can't bring ourselves to take them to the Hospital," the woman said. "they're both over five years old, and they've both been treated more than three times in the Clinic. That means that they'd both have to be sterilized before they could qualify for any legal care at all. And for something like this we just can't let them be mutilated like that."

"Well, I know how you feel. I disagree with the Eugenic Control laws, too, or I wouldn't be here. But the laws are the laws, and you have to make the decision; I

can't make it for you. Just for the record, the surgery required for legal qualification for Health Control care can't exactly be called mutilation. A vasectomy for a boy is a simple Clinic procedure that doesn't even involve hospitalization. For the girl, a tubal ligation is a little more complex, and might require an overnight stay in the Hospital, but nothing more."

"But the results are always the same, aren't they? Complete, permanent—"

"That's right. That's what the Eugenics Control laws are all about: the prior sterilization of any individual who requires health care services for any reason—excluding children under five, of course, except in cases of known hereditary disease."

"And that's why you're doing the surgery here instead of in a Hospital," John Merriman said heavily. "As far as we're concerned, sterilization of these children is out of the question. Until those laws are changed, we'll go underground. We understand the extra risk, Doctor, and we've both decided we have to take it."

Doc nodded. "Then we understand each other. You'll have to sign releases, of course, to cover me and my assistants in the event of unexpected trouble." He withdrew two printed forms from his bag and handed them to Merriman. "I'm sorry this is necessary, but it really is," he added gently. "Don't be afraid that I'm going to be anything but scrupulously careful—I'll do the best job I know how. But if you decided for some reason to report me to Health Control authorities, you would only be vulnerable for misdemeanor charges for accepting illegal medical services, whereas I could lose my practice license and go to prison for years. I have to have the protection of a release."

"Yes, we understand." Merriman signed the releases, and handed them to his wife for signature. "Then there's also the matter of the fee," he added. "You told Elsa seven hundred?"

"That's right—seven hundred in markers, or nine hundred on your credit card. The extra is to cover the cost and risk and trouble of feeding the credit card funds into the electronic accounting system without raising questions as to its source."

"Well, we have it in markers."

"Good, we much prefer it that way. Now, then, the little girl is the worrier of the two of them, so I think I'll take her first. You two might keep the boy company in the other room; I'll need my helpers with me."

Throughout this exchange, which he had heard a thousand times before, Billy Gimp had been setting up the kitchen area as an impromptu operating room. After releasing the binder on the first of the surgical packs, he had scrubbed hands and arms in the sink, let them dry in the air, and then gowned and gloved himself. Now, as Doc and Molly scrubbed, he set out the instruments, counted sponges, tested the suction machine and prepared sutures to be opened. As soon as Molly was ready he helped her into gown and gloves. She then took over preparation of the surgeon's tray, and Billy, with an increasing sense of ill-ease, turned his attention to preparing the ether mask and opening the anesthetic. The child, groggy and complacent from the premedication Molly had given her in the bedroom, took her place on the table under the best light in the house and submitted to the sterile drapes Molly attached around her hair and neck. Then, at Doc's signal, Billy did his best to emulate what he had seen Dr. Trautman do so many times in giving ether anesthesia, feeling clumsy in the extreme. "This little gauze cup has a funny smell, Jeannie," he said to the child. "Blow into it and try to blow the smell away. That's the way, blow harder!" The child blew, taking deep breaths of the ether as she did so. Momentarily she began to struggle but was quieted by a few words from Molly, and presently the child relaxed into slow, steady, stertorous breathing. "Reflexes, Billy,"

Doc said sharply, watching him closely throughout. "No, no, corneal—that's right. Okay, give her a little more, two or three more whiffs. Now where's the intubation setup?"

"I . . . don't know."

"What do you mean, you don't know?" Doc snapped. "You get the tube ready before you even start the anesthesia. I can't do this child without intubating her."

"Here it is," Molly said gently. "The pack was set up different from last time."

"Well, tell that supplier of yours to get things straight, Billy, and then check them out yourself. The last thing I need at times like this is a bunch of surprises." Still grumbling, Doc double-checked the surgical tray, then checked the child again and placed the breathing tube in place. "Now then, Billy, keep her stable just like that. Molly? Let's go."

As always, when a procedure was started, he was quick, skillful and thorough. For her part, Molly responded like any good scrub nurse, sensitive to Doc's slightest movement or gesture, moving almost instinctively to place the right instrument in his hand at the right time. The small portable suction machine that had come in the pack functioned poorly, as usual, but they made it do, using sponges wherever possible. Within fifteen minutes Doc nodded and stood back. "I think that's it," he said. "Billy, what the hell are you doing pouring on more of that stuff? You should have eased off five minutes ago when you saw me take the curette."

"I was watching the girl," Billy said sullenly.

"Of course you were watching the girl—but you should also be watching me. We don't want to be here all night waiting for these kids to recover." Gently, Doc took the sleeping child up in his arms and carried her into the bedroom where the mother and father were sitting with the groggy premedicated boy. Placing the girl in bed, Doc positioned her, removed the breathing tube

and then waited until she was breathing steadily and beginning to stir in recovery from the anesthetic. Then, after giving the mother specific directions for nursing the recovering child, he led the boy out into the kitchen, where Billy and Molly were waiting with fresh surgical garments and drapes.

The second case was somewhat longer and more difficult for Doc, but Billy's job seemed to go easier and he felt a surge of confidence as Doc watched him, checked the child's depth of anesthesia and then said, "Fine, now, not any lower, just touch it from time to time, and be sure to withdraw the mask at the right time." He and Molly proceeded as Billy watched child and doctor. This time, when Doc finally stepped away from the table, the patient was already stirring, and Doc gave a nod of satisfaction. "Better," he said.

"Yes, it was almost easy that time."

"It's always easy when everything goes right. Nine times out of ten I could give the ether myself and forget about having an anesthetist. It's that one time out of ten that gets you, when you need somebody up there with his wits about him. You'll learn, all right, you've just got to do it a few times."

The children's father had been making coffee, and after the boy was back in bed and the girl, now almost fully recovered, was rechecked, Doc accepted a cup gratefully. At the same time he briefed the parents carefully on the postoperative care program he wanted them to follow. "Miss Barret will stay here with the children until she's confident they're out of danger. If you need to reach me after she's gone, ring the service number I've written down here. The service will contact me by belt radio, and I'll return your call, so stay by the phone. I doubt that you'll need to contact me, but if there's any question, I'd rather you called. Got that? Now as to things to watch for, I have them listed in detail on this instruction sheet. Bleeding is the main threat; let me

know at once if there's any bleeding or vomiting of black stuff, any at all. Breathing is the other major concern; let me know if there's any wheezing or croupy coughing. And if I tell you to take either of these kids to a Hospital, *take* them. We'd far rather bow to the law, if we have to, than have a child in trouble—or dead."

As Doc gave the instructions, Billy busied himself gathering up instruments, cleaning them and returning them to the flight bag, together with disposable drapes, gowns, gloves and other paraphernalia that couldn't be dropped down an apartment house waste chute. As he worked, he remembered Parrot's message about the new patient. "Doc," he interrupted, "I forgot to tell you. You've got another call to make tonight."

Doc frowned. "Who is that?"

"A new patient that Parrot referred."

"Damn," Doc said. "Billy, you know I can't take on any more people."

"He said this was a special case, a very sick kid."

"Sick with what?"

"He didn't say, exactly. Headache, stiff neck, and high fever, was all he said. But Doc, Parrot wouldn't bother you unless he thought it was important, you know that. There's been a lot of Shanghai flu around. Maybe this is a complication."

"Well, maybe," Doc said. "You don't suppose it's another meningitis case, do you? Seems to me there have been a lot of those, lately. Well, did you bring along an infection kit?"

Billy nodded. "Penicillin, Viricidin, even some gamma globulin. The works."

"Okay, then we'd better move." Doc turned to John Merriman. "We're going to have to leave; can you call us a heli-cab?" As the man went to the phone, Doc went into the bedroom to give Molly final instructions and check the children for the last time. "Stay till you're sure they're all right, and then get a cab home. Billy and I

have another call to make. I'll check with you at the Hospital in the morning." He hesitated. "And Molly, ask Central Records for a read-out on meningitis cases admitted to the Hospital during the last week, will you? Use my identification key and tell them to leave the read-out in my box. And if they ask, tell them it's urgent."

By the time Doc rejoined Billy, a red signal on the Merriman's TV indicated that a heli-cab was waiting for them on the roof. Billy zipped the flight bag closed and tucked it under his arm. Then, after Doc had given his final instructions to the Merrimans, he and Billy walked in silence to the elevators.

On the roof the landing lights of the little heli-cab were blinking. Doc walked to the landing pad and climbed aboard. It was not until Billy had rounded to the other side of the vehicle that he saw the dark form of a police copter concealed in the shadow of the ventilators. "Doc!" he shouted. "It's a trap! Move, *get going—*"

At his first shout a blinding light flared from the police copter, flooding the rooftop. Billy ducked back toward the stairwell as the heli-cab blades began to turn and Doc's craft lifted from the roof with Doc aboard. Three uniformed men were charging from the police car now, paying no attention to the fleeing heli-cab. Then, as Billy ran for the stairwell, he stumbled on his bad foot and fell flat, sending the flight bag skidding across the rooftop ahead of him.

One of the police pounced on it while two more moved between Billy and the stairwell. As he struggled to his feet, Billy saw Doc's heli-cab gaining altitude, moving swiftly to the north, with no sign of pursuit. Then a policeman had one of Billy's arms pinned behind his back. "That's all, Buddy," he said. "You'd better come along. We'll worry about your friend there lat-

er." His captor pushed Billy forward, and a moment later he was sitting in handcuffs at the rear of the police craft as it lifted from the roof and moved off into the southwestern sky.

IV

It had happened so swiftly and inexplicably that Billy Gimp had had no opportunity to gather his wits. He had moved instinctively, and only when it was all over was there time to sit back and analyze what he had done and what had happened as a consequence. Instinct had told him that the police would have nailed both of them if he had tried to escape with Doc in the heli-cab; only by presenting a moving target on the rooftop had he enabled Doc to break away at all. And instinct had also told him that of the two of them it was Doc's escape that was most imperative. The Department of Health Control could arrest Billy, interrogate him, fine him or harass him in a dozen different ways without creating so much as a ripple of alarm in the complex world of underground medicine; at best the authorities would have apprehended a minor felon who might have his knuckles rapped, but would sooner or later be released to go back unhindered to his felonious pursuits. To apprehend a doctor engaged in illegal practice in the medical underground was quite a different matter. Health Control seldom managed to convict a renegade doctor, but when they did,

that doctor's medical career was over for good, as his medical credentials were stripped and he was subjected to fines, criminal prosecution, imprisonment and public disgrace. A captured bladerunner was out of business for a few days at worst; a convicted doctor was out of business permanently, together with any bladerunners and suppliers that might be convicted with him.

Thus Billy's move on the rooftop to allow Doc to escape had not been entirely a selfless sacrifice. Billy had done what *had* to be done at the time even though it meant his capture. It was only later and in retrospect that it occurred to Billy that there was something decidedly odd about the way the trap had been closed.

For one thing, the arresting police team had seemed totally and exclusively interested in *him*. Once they had him in the copter he was handcuffed, searched and relieved of the flight bag and his wallet—yet there was no interest expressed about the apartment building, nor did they even question him about where he had been. Granted that questioning would have done them little good, and searching six hundred apartment units under that one roof would have been manifestly impossible, but the total lack of interest struck Billy as surpassingly odd.

Nor was that all, once he stopped to think about it. They had not only ignored the apartment building but the fleeing heli-cab as well. No alert had been radioed, no cab number turned in, nor any kind of alarm set up. The police, in effect, had closed their net swiftly and efficiently on the little fish, and let the big fish slip away right under their noses—and this, it seemed to Billy, was more than passing strange.

At the time, of course, there had been no opportunity to think. The police had muscled him into the rear cab of the big police copter, revved the motors and lifted up, heading a few miles southwest to the heavily built-up business section of Trenton Sector. They settled down

again on the rooftop pad of a central police precinct station, and the procedure, once inside, was standard police procedure, up to a point. Billy was fingerprinted and photographed, then taken into a room to be stripped and searched by a beefy and ungentle police sergeant. He objected to removing the shoe from his bad foot, but the sergeant insisted, duly noting the clubfoot deformity down on his report sheet. Finally he was allowed to dress again—but at that point the procedure veered from what Billy had expected. There was no formal booking such as he had experienced on previous arrests, no police interrogation, no threats or blandishments. Instead he was taken to another room, a small cubicle with a single high window, an intercom, a computer console, a bright overhead light, a magazine rack, two chairs and a table, and there he was left to wait.

He waited, uneasy and irritable. On the magazine rack he found a Book of Mormon with the covers torn off, two comic books and a superannuated issue of the *Police Gazette*. He leafed through the latter, reading the details of an obscure axe murder, then tossed it aside and paced. Outside he could hear the normal commotion of people coming and going in the station, but nobody came near the door. Then finally, after a wait that seemed hours long, the door opened and a heavy-set man came in, wearing a gray business suit and carrying a briefcase. On his lapel was a small Department of Health Control emblem.

"It's about time," Billy said.

The man gave him a sour look and sat down at the computer console. From the briefcase came a pile of report sheets, together with Billy's wallet. The man punched at the computer controls for a moment, glancing now and then at the print-out sheet. Finally he dumped Billy's wallet out on the table, sifting, with pudgy fingers, through half a dozen phony ID cards.

"Interesting," the man said finally. "Just for the hell of it, what is your name?"

"Billy."

"Billy what? You've got seven cards here with a different name and ID number on each one." When Billy didn't answer, the man looked up at him sharply. "Look, we can dig it out with the computer if we have to, but why sit around here for six or eight hours playing games? What's your real name?"

Billy squirmed and shrugged his shoulders. "I don't know," he said finally.

"You don't know your own name?"

"Well, if you'd rattled around foster homes for ten years, you wouldn't know yours either," Billy retorted. "One place listed me as William Beckingham III, but they could have made it up for all I know."

"What about your folks?"

"Both gone, killed in the Health Riots when I was a baby. My pop must have been a doctor or a scientist or something. I never did know."

"But your friends call you Billy Gimp," the man said. "What's this with the foot, anyway?" He glanced at the computer print-out. "The record says you had first-stage repair of a clubfoot at age two, but the second and third stages were postponed. Under-age for consent, I suppose. But you're old enough now. Why haven't you had it fixed?"

"Try and guess," Billy said.

"Well, it's your foot."

"Let's say I don't like the price of free health care too much."

"But you seem to be up to your neck in illegal health care."

Billy just looked at him.

The man sighed, picked up a police report sheet. "At eleven thirty-one P.M. suspect was apprehended emerging from Apartment Complex Eight Sixty-one, Trenton Sec-

tor," he read. "Suspect had in his possession a flight bag containing the following items: one baggage locker key; six disposable surgical gowns; three surgical masks; two sets of used surgical drapes; one portable suction apparatus; one quarter liter of vinyl ether; two ether masks; assorted scalpels, hemostats, needle holders and sutures; two tonsil currettes—" He looked up. "Do I really have to go on with this?"

"All right, I know what was in the bag," Billy said. "So why don't you book me and have it over with?"

"Book you? What good would that do? We want to know about your operation, who else is involved. Maybe we won't even want to book you if you play ball."

"That I've got to see," Billy said.

"Well, why not give us a try? We're not police, we're Health Control. We don't want you eating up our budget in jail somewhere. All we want is to protect the public from illegal medical practices. Now, where were you using all that stuff tonight?"

"In Apartment Complex Eight Sixty-one," Billy said.

"Fine. Like what apartment?"

Billy just shrugged.

"All right, who were you with? Which doctor?"

"You don't really think I'm going to tell you, do you?"

"Well, then let me tell you." The man pulled a sheaf of typewritten notes from a folder. "This is a surveillance report of your activities during the past twelve hours. About four fifteen P.M. you found a bug in your room and immediately disconnected both your phone and your computer. Went to a public phone booth, used a false ID to place a call. Proceeded on foot to the antique shop of one Jack Masters, more generally known as Parrot. You came out empty handed after thirty minutes, went to your room, went to Lazy Louie's for dinner, then went to pick up a blue flight bag from locker number seven-four-three-eight at the Two Hundred

Ninety-first Street heli-port. Rode the monorail down to Health Control Hospital Number Seven—"Do I have to go on?"

"Sounds like you've got all the data you need," Billy said.

"Not quite all. You could fill in some important holes."

"Sorry." Billy shook his head.

"There are ways to get the information, you know. If we book you for a grand jury probe, you'd face pretrial drug interrogation."

Billy sat up, suddenly alert. "Not without a court order, I wouldn't."

"So we'll get a court order."

"Oh, no, not with what you've got. The most you've got on me is a misdemeanor, and that's no grand jury offense. If you had anything more, you wouldn't be sitting here talking. Now I want out of here. Either book me or don't book me. If you don't, I'm leaving. If you do, we'll have a computer-court hearing right here and now, and it'll convict me of a misdemeanor and I'll pay my fine and leave. So quit fooling around and take your choice."

The Health Control man sighed, gathering his papers together. "You really want things the hard way, don't you?" he said. "You may not like the computer-court verdict."

"I'll take my chances," Billy said. "If I don't like it, I can always appeal. Now why don't you get the sergeant in here to set up a computer-court and let's get going."

It was a risky move, and Billy knew it. A computer-court would have the authority not only to convict him but to impose sentence then and there. The computer-courts were new, developed only in the past decade to speed up the handling of minor complaints, traffic violations, misdemeanor charges, and victimless crimes by adjudicating them on the spot on the basis of unchal-

lenged evidence, presented by direct wire from any police station, precinct office, or street-corner hookup. In any case involving a small fine or suspended sentence, the computer-court could consider the evidence, adjudicate the case, and dispose of it in a matter of minutes. What was more, an adverse decision could always be appealed to a jury if the defendant so desired. Thus the computer-court was often used as a screening court to determine whether evidence was sufficient, or the alleged offense serious enough, to warrant further judicial proceedings.

There were problems, however, and Billy knew that too. A computer-court conviction inevitably prejudiced any appeal to a jury, and reversals were few and far between. But the more Billy considered, the more he sensed that he had to take the chance. Something about this whole stakeout and arrest was strangely spurious. If Health Control really wanted *him*, they had him, without any further ado. There was enough circumstantial evidence alone to convince a computer-court that he had indeed been involved in an illegal surgical procedure. Yet they dallied and dragged their feet and merely pretended to question him, apparently hesitating even to book him.

At the same time, it appeared that they had carefully ignored any leads that might have implicated Doc, and to Billy Gimp this did not add up. If Health Control knew his movements so closely, surely they knew he had met a doctor at Hospital No. 7, and they probably knew which one. They had to know that it was a doctor who had fled in the heli-cab, and they also had to know that at least one party to the illegal surgery—Molly Barret—had still been in the building when the trap was sprung. But there had been no stakeout to trace Doc's or Molly's movements; it was Billy alone they had been trailing, and Billy alone they had pulled in.

However he looked at it, he kept coming up with the

same answer: they had sprung the trap on him, but it was not him they really wanted. The one they wanted was Doc—but for some reason they could not, or didn't quite dare, try to tackle Doc head-on. They were interested in Billy only as a tool to corner Doc in some way—yet they could not use him if he would not testify.

And there, of course, was the hole in the fabric. There was no way that Billy could defend himself against a court-ordered drug interrogation. It was the one risk that he dared not take. And it was for this reason that Billy chose the smaller risk of forcing the issue then and there through a computer-court. At best he might be exonerated, though this seemed unlikely. At the very worst, he could appeal a conviction and be released on bail pending a jury trial some months in the future. And at this point it was freedom that Billy needed more than anything else, however temporary it might be—freedom for him to contact Doc and warn him of what was happening, time enough to give Doc a chance to cover his tracks in the face of certain knowledge that Health Control was preparing a strangely devious net for him.

After the Health Control man stepped out to get the sergeant, Billy paced the room nervously. He knew that the computer-court would provide both defense and prosecution, reviewing the police evidence as a basis for prosecution, and any testimony he might give in his own defense. Testimony would also be matched against precedents established in prior cases and stored within the computer's memory banks. Throughout the "trial," the defense counsel would seek to minimize the defendant's culpability, while the prosecution would seek to maximize the penalty. Billy's past arrests would be data entered into the litigation—but so would his history of past exonerations and charges dropped for insufficient evidence. On balance, he thought, he should not do too badly, and the longer he waited, the more his spirits

rose. Then finally the Health Control man returned with an officer and two communication units for the computer console.

"You're sure you want to do this?" the policeman asked. "You know that whatever goes into the computer can be held as evidence against you, and that you have a legal right to be represented by counsel in a jury trial if you prefer?" As he spoke he typed the warning into the computer's intake to make it a matter of record. Instantly the statement appeared on Billy's print-out. Billy read it, shook his head, and punched two standard response buttons on his console. DEFENDANT WAIVES RIGHT OF COUNSEL the machine typed out and then, after a pause, GUARANTEED RIGHT OF APPEAL DEMANDED.

The sergeant pushed his response button, and the computer spelled out: RIGHT OF APPEAL GUARANTEED BY COURT. PROCEED WITH CHARGES.

At this point the Health Control man produced a tape cassette which was inserted into the computer console. "Everything's on there," he told the sergeant. "Charges, testimony, the works." Almost at once Billy's print-out machine began chattering:

DEFENDANT WILLIAM BECKINGHAM (POSSIBLE ALIAS) IS CHARGED WITH ILLEGAL POSSESSION OF SURGICAL INSTRUMENTS ON ROOFTOP APARTMENT COMPLEX 861 TRENTON SECTOR
11:45 PM NOVEMBER 17, 2009

Billy stared at the print-out, waiting for other charges to be added. When nothing happened, he looked across at the Health Control man. "Where's the rest?"

"That's it," the man said.

"Just possession?"

"That's all."

Bewildered, Billy looked back at the print-out. In this day and age illegal possession of surgical supplies was

about equivalent to a traffic citation; Health Control was ignoring a dozen more serious charges they could press. Puzzled, Billy pushed the button to activate his own defense counsel, and watched with approval as the customary countercharges were printed out:

DEFENDANT PRESSES COUNTERCHARGES AS FOLLOWS: ILLEGAL SEIZURE AND SEARCH BY POLICE WITHOUT WARRANT ON ROOFTOP APARTMENT COMPLEX 861 TRENTON SECTOR AT ABOVE-NOTED TIME.

For a moment the computer was silent; then the typewriter began chattering again:

SURVEILLANCE OF DEFENDANT PRIOR TO ARREST PROVIDES REASONABLE SUSPICION OF GUILT. DEFENDANT'S PAST POLICE RECORD PROVIDED POLICE WAIVER. NO SEARCH WARRANT REQUIRED ON REASONABLE SUSPICION. COUNTERCHARGES DISMISSED. DEFENSE PROCEED WITH TESTIMONY.

A signal light appeared on Billy's side. He reached and pushed a button indicating no testimony. Instantly the teletype began again:

DEFENSE RECOMMENDS PLEA OF GUILTY IN ABSENCE OF TESTIMONY.

Billy nodded and pushed the consent button to activate the plea. The teletype rattled briefly and the sergeant's print-out read:

DEFENDANT PLEADS GUILTY.

Now Billy sat back. With a guilty plea, and no testimony to the contrary, the computer-court had no alter-

native but to convict; all that remained was the sentence. Billy watched the teletype, eager now to have this over with, to pay whatever fine was required and to get back out on the street and into contact with Doc. Even as he watched, the machine began typing rapidly:

DEFENDANT GUILTY AS CHARGED ILLEGAL POSSESSION OF SURGICAL INSTRUMENTS. IN VIEW OF DEFENDANT'S PAST POLICE RECORD, SURVEILLANCE IS NECESSARY TO AVERT REPETITION OF SAME OR SIMILAR MISDEMEANOR CRIME. THIS COURT SENTENCES WILLIAM BECKINGHAM (POSSIBLE ALIAS) TO SIX MONTHS OF CONTINUOUS PERSONAL ELECTRONIC SURVEILLANCE VIA BROADCASTING TRANSPONDER. SENTENCE TO BE IMPLEMENTED AT ONCE.

Billy stared at the print-out, totally appalled. This, of all things, he had *not* reckoned with. A broadcasting transponder—a small shortwave broadcasting device clamped and sealed to the victim's wrist—was a crime-control device ordinarily reserved for hardened and dangerous criminals as a substitute for imprisonment in order to avert further crime or criminal association, for it enabled police to maintain close, continuous, twenty-four-hour computer surveillance over anyone sentenced to wear one. With a broadcasting transponder on his wrist, Billy knew, his movements would be an open book to the police; it would enable them to follow him everywhere he went, to identify every building he entered, every move he made. It could lead police to any underground medical case that he and Doc might undertake and could, if the police wished to monitor him that closely, enable them to identify by time and place virtually every other human being he might come in contact with. The transponder was, in effect, a prison without bars. It

would mean that he was effectively out of business as long as he wore the device unless he could find some way to silence its broadcasting, and he was well aware that any interference with the function of a court-ordered transponder was a gross felony offense that could put him behind bars for years.

Billy stood up, shaking his head. "No," he said. "No dice. There's no grounds for that, and I'm going to appeal it."

The Health Control man smiled broadly. "Fine," he said. "An appeal won't help, but go ahead."

"That computer has got to be rigged. The courts *never* assign a transponder for a misdemeanor offense."

"They can when a man has a record like you have. There's plenty of precedent."

"Well, we'll see what a jury says about it," Billy said angrily. He turned to the read-in console, pushed the button to activate the defense side of the court and then typed out DEFENDANT APPEALS JUDGEMENT.

The print-out clattered briefly. GROUNDS FOR APPEAL?

Without Billy touching the console the defense printed out: CRUEL AND UNUSUAL PUNISHMENT FOR MISDEMEANOR OFFENSE. DEFENDANT DEMANDS JURY TRIAL, RELEASE ON BOND PENDING TRIAL DATE. Billy nodded approval; it was the only plausible approach. After a moment the prosecution side printed out: APPEAL NOTED. DEFENDANT WILL BE NOTIFIED WHEN TRIAL IS SCHEDULED. TO BE RELEASED ON SUITABLE BOND PENDING TRIAL.

Billy leaned back in his seat with an audible sigh of relief. But the Health Control man, still smiling, was holding a whispered conference with the police sergeant. Then he tapped out a message for the computer: PROSECUTION PROTESTS CASH BOND ON GROUNDS OF ARREST RECORD. REASONABLE DOUBT DEFENDANT WILL APPEAR FOR TRIAL.

Moments later the court print-out went into activity

again. Billy watched as the words appeared on his print-out:

PROTEST SUSTAINED. DEFENDANT TO BE ASSIGNED TO CONTINUOUS PERSONAL ELECTRONIC SURVEILLANCE VIA BROADCASTING TRANSPONDER UNTIL TRIAL DATE IN LIEU OF OTHER BOND.

It was incredible and unheard of, but it was there. He was being assigned a transponder whether he accepted the computer-court's original sentence or appealed it; the net result was exactly the same. As he lurched to his feet the sergeant moved to block his escape and two more policemen came through the door. The sergeant opened a leather case and withdrew a small chrome-plated device that looked like a wrist watch with no face on it. Seizing Billy's right wrist, he clamped the transponder in place and turned the tamper-proof seal. Then, as Billy stood staring at the device in disbelief, the Health Control man stood up, still smiling, his briefcase in his hand. "Great talking to you, Billy," he said blandly. "Any time you'd like to shake that thing, just let us know that you want to talk. Meanwhile, don't do anything you wouldn't want us all to know about, because we'll know about it."

Moments later Billy Gimp was out on the street, clutching a computer-printed sheaf of instructions regarding the function and inviolability of the transponder. The rules were all there, plainly written; any attempt to tamper with the seal or remove the device without authorization was an automatic felony offense, and would generate an alarm signal that would be picked up by the nearest police copter or other police unit and bring swift investigation. The purpose of the transponder was surveillance and crime prevention, and Billy could be observed as closely as Health Control desired

for a period of six months or more. Frightened and confused at the sudden turn of events, Billy took a ground-bus, disembarked within a few blocks of his room, and soon turned into the familiar Lower City street.

No wonder the Health Control man had been smiling, Billy thought. He had been outmaneuvered from the start, and Health Control had been certain of the outcome from the moment Billy had been arrested. They had led him along, and now he was trapped in an electronic web from which there was no appeal, and from which he could not even risk momentary contact with Doc. Indeed, on the surface it seemed that Health Control had clamped down hard on Billy. Yet something deep in his mind was still insisting that it was not him they really wanted. If they had wanted him and him alone they could have placed him incommunicado in a prison cell until an accelerated jury trial could have been arranged.

Only one thing seemed possible: that Health Control was really basically interested in trapping Doc, yet for some reason could not move directly against him; and that consequently they were using Billy, Doc's bladerunner, in some scheme to entrap him. And that meant that somehow, in some way, he had to warn Doc that grave trouble was brewing, transponder or no transponder.

Back in his room, Billy found it was 3:30 A.M.; he had been at the police station for over two hours. Following a hunch, he crossed the room and lifted the sweater from the floor. As he suspected, the bug was gone. He looked at the transponder on his wrist and sank wearily down into a chair.

Of course the bug was gone. They really didn't need it anymore.

PART TWO

DOC'S STORY



I

It had all happened so swiftly that Doc had already reacted before he had time to think. One moment he and Billy were stepping from the elevator onto the darkened rooftop of the Merrimans' apartment and walking across to board the waiting heli-cab; the next moment Doc had heard Billy's warning cry, and the roof was ablaze with light from the police spotlights. Already climbing into the heli-cab, Doc had boosted himself the rest of the way in, slammed the door behind him and thrown the fast takeoff switch. A moment later he had heard the idling motor surge into a roar as the heli-cab rose swiftly into the air.

It had been self-preservation and nothing more, a lesson he had learned years before in the jungle fighting around the little field hospital in the south of China where he had been stationed during the Great Eastern War in the late 1980s, and learned again during the Health Riots of '94, when angry torchlit mobs had swept through cities and suburbs, fire-bombing clinics and hospitals and tossing tear-gas grenades into the buildings to drive the doctors and nurses out. That Doc had survived those frightening days at all was a credit to his physical agility and his uncanny sense of precisely when to move, and how, in order to save his own skin. And now the lesson had come back full force as he coded the Health

Control Hospital address—the first he could think of—into the auto-pilot computer and sent the little cab banking into a long curve to the north, fully expecting hot pursuit by the police. As the cab turned away from the rooftop, he had seen Billy's figure down below, running for the stairwell, then tripping and falling spread-eagled on the roof as two or three dark figures pounced on him and the flight bag that had been thrown from his hand in the fall. It was not until the heli-cab was moving steadily to the north, with no sign of any pursuit, that Doc began thinking and recognized what had actually happened. Obviously Billy had made a sacrifice move; if he, too, had tried to clamber into the heli-cab, the police would have nailed the vehicle to the roof, or at best followed in swift pursuit. Billy had gone down deliberately to give Doc a chance to get away—a chance that Doc had seized without question or hesitation.

For a moment, then, he was half tempted to turn back and try something wild and foolish, a bravado rescue attempt or some such thing, but he instantly vetoed the idea, much as he felt guilty at leaving Billy in the lurch. He and Billy had long since agreed on the policy to follow in the event of an ambush such as this. If one were captured, they had agreed, the other should flee while he could, and then wait for the other to contact him when things were clear. Doc had recognized an unspoken obligation never to knowingly lead the law or Health Control forces to Billy or his bladerunning activity, and Billy had agreed never to knowingly implicate Doc in his medical underground activities, should he be apprehended. And in practice they had followed this policy before. Billy had been picked up more than once in police or Health Control dragnets thrown out as a result of underground medical blunders or disasters—all too common these days—but the blunders had never been Doc's, and Billy had always been released again after minor interrogation had cleared him in such cases.

What was more, Doc realized, there were others involved in this case than just Billy. Molly Barret was still in the Merrimans' apartment with the two recently treated children. Without some direction it would be all but impossible for the police to search the whole apartment complex just for a Health Code violation—but any attempt on Doc's part to interfere with Billy's capture could easily lead to just such a search. Overall, he decided, there was nothing to do but let Billy face the police alone, at least for the moment.

He could, however, warn Molly. As the heli-cab headed north Doc lifted the mobile phone receiver, dialed the Merrimans' number, identified himself when John Merriman answered, and asked for Molly. A moment later the girl's face appeared on the screen.

"Doc! Where are you? What's wrong?"

"How are you doing, Molly?"

"Oh, the kids are coming alone fine. The parents were just going to bed."

"Well, the police hit us on the roof just now," Doc said. "They must somehow have followed us. I got away in the heli-cab, but they caught Billy."

"Oh, no! He couldn't get away?"

"No, they were right on him."

"Well, at least Billy would never tell them where we were working . . . I mean which apartment."

"No, he wouldn't. But the police might keep the building staked out for a while. You'd better stay where you are until rush hour in the morning—they couldn't possibly screen people then—and get the monorail to the Hospital."

"Well, all right, if that's best," Molly said. "But what about Billy?"

"They probably take him in and book him. They caught him with that bag full of junk."

"And we can't help at all?"

"Not right now. For the moment, just don't leave the

building. You can reach me on my belt radio if you need me."

"Where are you going now?"

"I don't know. Home, I guess. No, I've got that other call that Billy picked up from Parrot, a very sick youngster. I suppose I'd better stop. You take care, now, and don't forget to check that data at the Hospital first thing."

He rang off and settled back in his seat as Molly's face faded from the tiny communication screen. Slowly, now, he felt himself coming back to reality. The little cab's radar screen picked up an occasional helicopter moving off at odd angles or across his flank, but there was no pattern suggestive of pursuit. If the police had broadcast the cab's license number for pickup, there was certainly no sign of it in the air; the best move, Doc decided, would be to go directly to the address Parrot had provided and send the cab back to its home station empty on the auto-pilot. There was a certain risk that if the police had known enough to spring a trap at the Merrimans' building they might also know of this additional call, but that seemed improbable to Doc. More likely they had merely followed Billy without knowing where he was bound, and correctly assumed that the stop at Apartment Complex 861 Trenton Sector involved illegal medical work.

At any rate, the chance had to be taken. Doc found the address card in his pocket, coded it into the computer and then settled back as the small airship obediently changed course, veering to the northeast and slowly losing altitude. As he stared down at the city lights passing below, Doc turned this emergency call over in his mind. It was not the first such call he had made in recent weeks; in fact, it seemed to him that there had been a sharp influx of calls involving high fevers, blinding headaches, stiff necks and delirium—all characteristic of some kind of infectious meningitis. Of course, he had

seen only severe cases on his underground rounds. Minor infections seldom brought calls for clandestine medical help these days; the risk of detection was too high, to say nothing of the cost of such care. But in the cases he had seen, or had heard other doctors discussing, there had been an ominous pattern: first a bout of the Shanghai flu that had been sweeping the nation in recent months, usually untreated because the illness seemed so mild and transitory; and then, when recovery seemed almost complete, the sudden onset of high, spiking fever, headache, stiff neck and prostration. If this was another such case, the outlook could be grave indeed, because increasing numbers of victims of this syndrome were proving beyond medical help when they were finally seen.

Suddenly the heli-cab veered slightly and began descending toward a cluster of tightly packed high-rise apartments in the Plainfield Sector of the city, and Doc turned his attention to the ground below. Plainfield was a tacky, rundown area of the city; many of the buildings were decades old and not equipped with helicopter landing pads. Doc watched as the heli-cab approached a rooftop bearing the building number he was looking for, scanning for a landing signal to guide it down. When none appeared, the cab merely hovered, allowing Doc to disembark. Once he was on the roof, the cab rose again on its auto-pilot and moved swiftly off to the north again.

Doc scanned the rooftop suspiciously. At first it appeared deserted. Then a small figure detached itself from the shadow near a stairwell and a boy's voice called out, "Doctor?"

"Who's that?" Doc returned.

"Jerry Hardy, Will Hardy's boy. My brother's sick. We've been expecting you."

"Okay," Doc said. "Show me the way."

He followed the boy, a skinny ten-year-old, who led

the way down the stairwell into the dilapidated apartment building. The corridors, once carpeted, now had only worn-out fragments of rug, and the dim light above the elevator door only indicated half the floors. They waited and waited as the elevator came clanking up the shaft and finally wheezed open. "It's okay," the boy said when he saw Doc hesitate. "It'll take us both. T'other one only takes one, remember that when you come back up."

The elevator stopped at a floor halfway down the building, and the boy led Doc along a maze of corridors to a remote apartment. The door was opened a crack and a middle-aged woman peered out. "Yes?" she said.

"I'm Doctor Long. I got word that you wanted help."

"Oh, yes!" The woman opened the door, and led Doc through a shabby living room to a bedroom at the rear. She was very thin and pale, her face lined with concern. "It's my oldest boy, Doctor, he's just awful sick. Came down all of a sudden, three days ago, and it's been getting worse and worse. My husband's with him now."

She opened the bedroom door and Doc stepped inside, then stopped short. An adolescent boy lay in the bed, actively chilling. Beside the bed, standing helplessly, was a man with half his hair and beard shaved off.

"Hold it," Doc said. "If you folks are Naturists, are you sure you want a doctor?"

"We've got to have help, Doc," the man said, coming forward. "We just didn't dare stick it out any longer. And none of us are qualified for hospital care. They wouldn't let us through the clinic door."

"No, I suppose they wouldn't." Doc crossed the room, turned on the bed light and looked closely at the boy. He was sixteen or seventeen, with his hair half shaved just like his father. But there was a feverish glow to his cheeks and he lay stiffly in bed, chilling, with his head thrust back and his body bowed forward. Doc sat down, attached a temp-clip to the boy's ear, read it a

moment later. "One hundred and four degrees," he said. "Massively elevated white count, mostly segmented neutrophils, and a hemoglobin reading way below normal—how long has he been sick?"

"Three days," the man said. "Not bad the first two, just a headache and a sore throat. Then his neck got stiff yesterday and his fever went clear up and wouldn't come down."

"Any sickness before this?"

"Nothing to speak of," Will Hardy said. "He had the Shanghai flu a couple of weeks ago, just like the rest of us, but he seemed to be getting over that just fine when this turned up."

"I see," Doc said. Methodically he went about examining the boy, checking ears, throat, heart and lungs, abdomen. The boy was so dehydrated that his skin felt like dry parchment between Doc's fingers. "He hasn't been taking fluids?"

"Not for twenty-four hours. That's what got us so scared. He tries and tries but he can't hold no fluids down. Can't hold *nothin'* down."

"What about the rest of you?"

"Oh, we're okay," the man said. "I've got a little headache, and the younger boy's had a fever tonight, but he feels okay, don't you, Jerry?"

"Well, never mind," Doc said. "Just to be safe we'll take a look at all of you." Step by step he began checking the others, taking temperatures and running blood counts. He found that the father already had a stiff neck as well as a headache, and the boy's temperature was 103°. Only the mother seemed unaffected.

Shaking his head, Doc took the parents aside. "All right, now, listen closely," he said. "You've got a terrible problem on your hands and you're going to have to make some hard decisions. This older boy is mortally ill. He almost surely has some kind of meningitis—I can't tell what kind without doing a spinal tap, and I don't

have the equipment on hand for that. He also needs lab work, at the very least a culture to identify the organism causing the infection and a test to determine which antibiotic will be the most help in stopping this thing. But above all, he's got to have fast, diligent treatment, including intravenous fluids, in a hospital without delay, because he's not going to survive this dehydration very much longer."

"But, Doc," Will Hardy said, "I told you—"

"That's not all," Doc interrupted. "Both you and the younger boy are also ill, and probably with the same thing. There's been a lot of this turning up recently, and people have been dying from it because they haven't gotten the right kind of medical help soon enough. The truth is that all three of you need hospital care and treatment starting right now."

"Doc, we can't go to a hospital," Will Hardy said.

"You mean you don't want to," Doc retorted. "Even unqualified patients can be admitted for emergency treatment, as long as they agree to sterilization as soon as their condition permits."

"Doc, it isn't just that, it's the whole rotten hospital scene. Look, I may not be a very good Naturist when it comes to a showdown, but I can't take my kids into a place like that. I hate those places, I couldn't let my kids near them."

Doc shook his head sadly. "You're the one that has to decide," he said. "All I can do is tell you what's needed. I can start treatment here and hope for the best, but I warn you that it may be too little and too late. If the boy dies, I can't be responsible."

The man hesitated, breathing heavily. Then finally he shook his head. "If you can start treatment, at least do that. Do whatever you can do here."

"All right." Doc opened his bag and withdrew syringes, needles, medications and other paraphernalia. Then, turning to the boy in bed, he injected an ampul of

colorless fluid into a vein, sealing the needle hole with tape. "That's an anti-emetic," he told the older Hardy. "It should help prevent upchucking so that he can hold something on his stomach. Now we need fluids—sugar water, orange juice, anything palatable that you have. Let's get it started." He went out in the kitchen with the mother, showed her what to prepare and how. A few moments later he gave the boy an ounce of sugar water by mouth, waited a minute or two and gave another ounce. There was no vomiting. "All right," Doc told the mother, "you keep this up for the rest of the night. An ounce or so every fifteen minutes. I'm also giving him antibiotic and viricidal medicines that may help with the infection, but the dehydration is the biggest threat right now."

Turning to the father and the younger boy, he administered antibiotic by injection, then counted out capsules for them to take later. Next he gave the woman a brief lesson in fever control, showing her how to bring the older boy's temperature down and keep it there. Presently he went out into the living room, sank down in a chair and dozed for a few moments. An hour passed, then another, as Doc intermittently checked the sick one. The boy was keeping fluids down now, and had less fever, but there was little other sign of improvement. Finally Doc shook his head. "I can't stay any longer, I've got to get some sleep," he said. "There's nothing more I can do here, anyway. He's still terribly sick, and I urge you to reconsider and take him to a hospital. If you go to Health Control Hospital Number Seven and give them my name, he'll be admitted without delay. He'll have to qualify for care later, but this is a matter of life and death now. I'll check in the morning to see if you've brought him—think it over very carefully. And I'll have to collect a hundred dollars in markers or a hundred and forty in credit now to pay for this infection kit I've used."

The family had the money ready. The father remained beside the boy, obviously deeply troubled, as the woman escorted Doc back to the elevators. "I'll try to talk him into it, Doctor," she said. "He's very stubborn about the hospitals, but even he can see how sick the boy is. I'll do the best I can."

Doc nodded as he stepped onto the elevator. "Please do," he said soberly. "What we can do here just isn't enough. Keep me posted." Then the elevator door squeaked shut, and a moment later Doc stepped onto the street. It was just past 3:00 now, and the side streets were deserted; he walked to a nearby arterial and flagged down a late-roving ground-cab.

Like other unmarried staff men at Hospital No. 7, Doc had a small rent-free flat in an Upper City apartment complex near the Hospital, assigned to him by the Department of Health Control. Settling back in the cab, he gave the driver the address, and then closed his aching eyes. Weary as he was, he didn't feel sleepy; his mind was too full of apprehensions and unanswered questions for that. As the ground-cab whispered down the almost deserted arterial, Doc tried to relax, to clear his mind of the worry and frustration he felt for the sick boy he had just seen, and the dismal outcome he foresaw if the boy could not somehow be brought to the Hospital for intensive treatment. At the same time there was the nagging worry about the ambush on the rooftop and Billy's arrest and what this could mean to the future of their underground operation—but here again he found himself up against a solid wall, unable to move. There was not a way in the world that he could force Will Hardy to bring his dying son into the Hospital for treatment; the man had to decide that for himself. And there was not a thing he could do about Billy, either, until Billy himself called and let him know what the situation was.

Two frustrating dead ends—but that was not all that

was bothering Doc. Deep in his mind there was another worry, far more ominous, yet strangely undefined, chipping away stubbornly at his subconscious. It was something quite aside from Billy Gimp or the Hardy boy—a cold, relentless sense of impending disaster that Doc could neither shake aside or identify. Billy and his arrest were part of it, yes, and so was the boy with meningitis—yet somehow Doc sensed that they were only tiny pieces in a much larger puzzle, a frightening pattern of events that doggedly eluded definition. There were other pieces to the puzzle, too: the dangerous game he was playing with his legitimate work at the Hospital, the nightly demonstrations and near-riots occurring outside the Hospital doors, the sense of imminent crisis he felt so strongly as he walked the wards and corridors of the vast medical center—

He shook his head wearily as the little ground-cab moved swiftly south through the city. Thinking about it now was pointless; he was too bone-weary at this point to think about *anything* coherently. Perhaps with a few hours of sleep the elusive pattern that was dogging him would come clear in his mind. Maybe by morning the sick boy would have been brought to the Hospital so that he could do something there. At the very least, by then, he should have heard from Billy, so that the two of them together could formulate some sort of plan.

And it was then, in the depths of his weariness, that it dawned on him fully and for the first time how very much any plan that he might contemplate was going to depend on Billy Gimp.

II

There were no messages from Billy on Doc's apartment phone, however, and no messages waiting in his box at Hospital No. 7 when he arrived there at a little after 7:00 in the morning. There had been little rest when he had reached home; after an hour or so of fitful dozing, intermixed with unpleasant dreams, he had gotten up, showered, and then read surgical journals before taking a ground-cab to the Hospital. Now as he flipped the IN sign by his name at the call desk and walked across the lobby he felt raw-eyed and groggy. Pushing through the lines of patients already queuing up for the 8:00 outpatient clinics or morning admissions, he made his way to the staff canteen behind the banks of elevators and found coffee and doughnuts, the only breakfast he ever ate. Armed with a full cannister of coffee, he took an elevator to the twenty-eighth floor, hopped a jitney to the north wing, and a few moments later was letting himself into the welcome solitude and privacy of his own Hospital office.

Sitting down behind his desk, he activated his computer console and studied his day's schedule as it appeared automatically on the screen. Fortunately it was an easy day, starting at 9:00 with the Mabel Turner heart case in the neuropantograph recording suite, then monitoring an emergency appendectomy that had been

slipped into the schedule at the last minute, to be done by a pantograph-programmed robot, and ending with a cardiac transplant originally planned for noon but now rescheduled for 1:00. Pouring himself more coffee, he knew he should be using the available time to review the charts of the two heart patients; but after a half-hearted attempt to become interested, he cleared the console screen in disgust and sat back to stare out the window at the gray dawn.

He had counted on word from Billy by now, and the absence of any message at all was alarming. Breaking a long-standing agreement that they not communicate with each other directly in the Hospital, Doc called the operator to page Molly Barret in the Operating Suites on 17 Central. A moment later Molly appeared on the screen, looking as weary as Doc felt. "Word from Billy?" she said. "No, nothing. Haven't you heard from him yet? Doc, I'm worried."

"So am I," he said. "But I don't dare try calling him until I know he's clear." He looked at her. "Did you check Records for those figures on meningitis?"

"Yes," the girl said, "and that's another funny thing. They wouldn't give me the data."

"Wouldn't *give* it to you?"

"That's right. They said it was Hospital-classified, and I'd have to have a special authorization code from the Administrator. I wasn't sure what you'd want to do, so I cancelled the request. I hope that was right."

"Yes, that was certainly right. But *classified*? Molly, there's something very strange going on. Didn't they say anything else?"

"Not a thing."

"Well, all right, listen. I'll be in surgery most of the day, but if you hear anything from Billy, anything at all, leave me word on my office tape. I need to reach him as soon as I possibly can. And Molly—don't worry a lot. There's really not much they can do to him, the way I

see it, and Billy's been on this griddle before. He'll make out all right." Doc rang off then, wishing he felt as confident as he had tried to sound.

Classified. Doc poured himself some more coffee and sat back in his recliner, frowning. All she had asked for was a statistical rundown from Medical Records on any and all cases of meningitis admitted to Hospital No. 7 in the past month—the type of infection, sex of the patients, age curves, pattern of symptoms, duration of illness, other medical history or contributing factors, a complete biomathematical profile of the sort that any doctor might need for any type of illness he might be treating. The Hospital's Medical Records department filled hundreds of such requests each day, searching out statistical profiles as routinely as they recorded blood counts and X-ray reports; it was a basic part of modern medicine's technological weaponry, and for such a profile to be Hospital-classified and withheld from review was virtually unheard of. Of course, he could go to the Hospital Administrator for authorization—but the less of Dr. Katie Durham's attention he drew right now, he decided, the better he liked it.

He pulled a pipe out of his desk, filled and lighted it. There was another way to do it, too. He could pull the admission rosters for each separate day during the last month, pick out the patients with admitting diagnoses of acute meningitis, and pull their records one by one, compiling a statistical profile as he went. But such a procedure could take days, maybe weeks, of his time, and deep in his mind was a sense of urgency that told him that days or weeks might be too long.

Finally, disgusted, he activated his console and called for the admission roster of new patients admitted to the Hospital from the previous midnight on. When the list appeared on his screen, he went through it carefully, name by name. Just as he feared, no Hardy was listed on the roster, although four other patients with tentative

diagnoses of acute meningitis had been admitted during the night and confined to the Hospital's isolation wards. Along with the roster was a flagged notice directing all Hospital personnel to report to the Public Health and Immunology Department on 8 West for gamma globulin shots as short-term protection against an unclassified viral meningitis diagnosed in "several admitted patients," and a long notice from Immunology describing efforts to prepare a multi-valent vaccine against all currently active strains of viral meningitis in the eastern sector of the country. Doc coded in a request for a print-out of the notices to be placed in his box. Then, never entirely trusting the computer-compiled admissions roster, Doc called the Admitting Office and asked them to check for a Hardy on the night's admission cards.

After a five-minute wait, Admitting came back and said no, no Hardy had been admitted. Doc flipped off the console and sat back with a sigh of defeat. It had been too much to expect, after all. He had been hoping against hope that the fact that the Hardys had violated their Naturist convictions to the extent of calling in a doctor in the first place might have led them to follow his urgings and have the boy admitted. Yet he could also see how impossible, how unthinkable, this might be for them, considering the fanatical zeal with which the whole Naturist movement, from Randall the Martyr on down, hated and despised doctors and medical care in general, and treatment in government Hospitals in particular. This was no lipservice dedication, and never had been; from the very first the Naturists had followed the tenets and teachings of Randall Morganson with a single-minded devotion more reminiscent of fixed religious conviction than of mere social or ethical policies.

In fact, Doc reflected, the really surprising thing was that the Hardys had decided to call a doctor at all, for the Naturist movement had always been marked more

by zeal than by judgment. Randall the Martyr was as much alive today as he was before his death some twenty years before, and the cult of fanatics he had founded and led had continued to grow with each passing year despite all the government's efforts by force or by guile to silence its voice. It had been Randall Morganson who had led the movement through the bloody Health Riots of '94, flailing mobs of people into mindless, incandescent frenzy and sending them out to break into hospitals, burn down clinics and drive doctors and nurses into the streets for angry public confrontations, whippings, or worse. His capture, of course, had been inevitable; some said he was purposely daring the authorities to stop him, forcing them to move against him, knowing that his incarceration would merely fan the flames of violence and determination among his followers. Nor was the man without his own deep-seated personal conviction that the Naturist way was the only way, as events later proved. Whatever else he may have been, Randall the Martyr was no fraud. Perhaps it was mere coincidence—or ironic fate—that it was while he was waiting trial during the heat of the riots that he developed the first symptoms of the disease that was destined to kill him as swiftly as flames or gas chamber: the ravenous appetite, the unquenchable thirst and the increased urination that marked the onset of acute diabetes mellitus.

Physicians later concluded that Randall Morganson, at the age of twenty-seven, was suffering the belated onset of the virulent, fast-moving juvenile form of the disease, uncontrollable without vigorous medical intervention—and Randall flatly rejected medical aid of any kind. Throughout the rapid, downward course of his illness, his condition was followed daily by every newspaper in the country, and his flushed face, thinning cheeks and overbright eyes became familiar fare on every household TV screen. When his trial was accelerated by a government fearful that he might die before he could

be convicted, no one was surprised that he was rescued from the courtroom at gunpoint by a squadron of his Naturist followers, all wearing the half-shaven head and beard that Randall himself had worn as a symbol since accidentally burning off half his hair escaping from a fiercely burning clinic building he and his lieutenants had fire-bombed. And from the day of his escape onward, the course of Randall Morganson's illness in a hideaway in Mexico remained a front-page newspaper story: the encroaching blindness, the episodes of diabetic coma staved off by rigorous dietary control, the gangrene of the extremities, the kidney failure, survived, some said, only by the overwhelming power of the man's will alone, and finally the ultimate martyrdom in a diabetic coma so profound that no measures whatever, medical or otherwise, could have reversed it.

Randall the Martyr dead was as much a firebrand as he ever had been while living, and even today he stood revered by the hardcore of Naturist followers who opposed any medical treatment for any form of illness, who attacked the government's Eugenics Control Program and the Sterilization Clinics as supreme blasphemy, and who died as Randall had died, of infections or other diseases rather than submit to the federalized system of medical care which had finally emerged from the Health Riots. True, there were Naturists who called in underground doctors for care. In some circles they were vilified as unbelievers, but there were others who quietly condoned the practice, claiming that it revealed the corruption of the government's programs in such bold relief that even the doctors could not live with them. As for Randall Morganson himself, it was in a way a supreme irony that he should have died of untreated diabetes, of all things, for it was an intense scrutiny of the increasing incidence of this ancient disease in the general population that led to the bloody Health Riots of 1994, and ul-

timately to the very health care programs that the Naturists hated and resisted so fiercely.

Somewhere down the twenty-eighth floor corridor, a loudspeaker paged an intern, and occasional footsteps sounded past the office door; otherwise the place was very quiet. Doc walked to the window, peered down at the vast complex of buildings that composed the Federal Hospital and Medical Center No. 7 and the tier upon tier of Upper City apartment buildings that surrounded it on all sides. A gray winter rain was falling now, and the ground-cabs' lights were on as they moved up and down the busy thoroughfare fronting on the Hospital. A gray day, precisely the same kind of day some eighteen-odd years ago when the Health Riots in the space of a few brief hours had changed his own life so irrevocably. In a way he was surprised that the bitterness was still there, but probably it would always be there; even after all this time the memory of that horrible night was almost unbearably painful, mental images passing like a fiery tableau: the chanting, furious mob that had materialized without warning outside their quiet suburban home just as his wife had put the baby down and they were preparing for bed; the cutting of phone and computer wires as preparations were made to put the place to torch; the rising flames as four of them smashed the door and dragged him out at gunpoint to the torch-lit gauntlet of jeering, angry faces; his wife and the baby blocked at the door of the burning building by sniper fire until the billowing smoke blotted everything out. The police and fire trucks had come, finally, but as usual in those days, too late and with too little; the hour-long pitched battle that raged leaving half a dozen of the mob dead and a dozen more wounded, and he himself held forcibly in the squad car by a brawny police sergeant as the flaming roof collapsed just as the fire hoses got started. . . .

Long ago now, Doc thought, and still the bitterness

and pain. It was easy, now, to blame the Naturists, but they were by no means the only ones. In those days the whole country was aflame, and the Naturists only a tiny segment of the rioters. By the late 1980s the health care in the country had reached a point of no return—a point at which something desperate was bound to happen. For over a decade the stage had been set, with full-scale government-subsidized medical insurance providing care not only for the poor, the aged, and the medically handicapped but for everyone else as well. At the same time medical research, with massive federal assistance, had blossomed as never before. The new cancer vaccines, although no cure for malignant diseases, helped immensely to prevent them, while newly discovered drugs prolonged the lives of late-stage cancer victims. With the problem of rejection finally conquered, organ transplants had become commonplace, providing ever-better control of such notorious killers as coronary artery disease and kidney disease. Above all, a greater understanding of bio-feedback mechanisms to counteract physical and emotional stress led to real hope that the aging process could be blocked, and the practice of gene manipulation promised to help increase longevity and avoid genetic proneness to a multitude of diseases. By the early 1980s even the most conservative medical authorities were predicting that an average human life span of 120 years might be achieved by the turn of the century, and more and more young doctors were turning their interest and energies toward research and away from the treatment of individual sick patients.

As a young, solo family practitioner in the early 1990s Doc had seen the pattern of chaos developing all too clearly. He had been proud of the sign on his door announcing *JOHN F. LONG, M.D., GENERAL MEDICINE* even when almost half his practice time was occupied filling out dreary Medicare forms in quadruplicate, seeking to justify to the federal agencies the

studies, treatments, and medications he wanted to prescribe for his patients. But already obvious to him was the ever-increasing number of aged patients passing through his doors. At the same time he was more aware than many of the subtle shift of political power to help maintain the aged in physical comfort and good health in their ever-lengthening sunset years. Political leaders clearly recognized the blossoming power of Senior Citizens' lobbies, and enacted multitudes of costly old-age benefit programs to be financed by taxing the young and producing members of society. At the same time there was a steady loss of interest in population-control programs as the elderly, conservative, status quo attitudes prevailed. Of course it was inevitable that, while health care facilities became more and more widely available to all, the quality of the medical care delivered became increasingly poor, with huge crowds holding the clinics open until late at night, the endless waits to be seen by a doctor—any doctor—and the sad but inescapable depersonalization and computerization of medical care as sick people found it ever more difficult to achieve the close doctor-patient relationships once so important to good, concerned medical care. In response to this, an aging national legislature began a vast shake-up of the federalized health control facilities, seeking to triple the number of doctors, establish more family consulting units and provide more doctor-patient contact—a program which, although theoretically achievable, promised to double once again the already staggering cost of government health care services in the nation.

It couldn't go on like that, of course. If Doc in his simple office had foreseen a breaking point ahead, the nation's leaders had foreseen it even more clearly. By late in 1992 several disturbing facts began to surface in the national administration and, by leaks, to an increasingly concerned and frightened public. With all the aging beneficiaries of the medical and geriatric programs,

there was an alarming leveling-off of the national economy as an ever-smaller proportion of the population actually *produced* anything. Younger breadwinners were forced to shoulder the spiraling tax burden, yet the total tax revenues began to fall. Money became scarce, outdated medical equipment was continued in use, necessary hospital repairs were postponed, and new hospital construction rumbled to a halt. Perhaps most frightening of all was a secret economic study commissioned by the President, and then unaccountably leaked to the press, that contended that the whole national health care program, supposedly so well funded, was in fact approaching bankruptcy, and predicted that a massive economic breakdown would occur before the year 2010 unless some way could be found to halt the increase in population growth and curb expenditures on medical programs. With an aging Congress and national administration unable or unwilling to do anything to alter the developing pattern, there was a massive public outcry from the younger citizens, and scare headlines appeared in the news media across the country. One liberal Washington newspaper proclaimed: *REPORT PREDICTS DISASTER IN FIFTEEN YEARS; HEALTH SERVICES MAJOR FACTOR*, while a large midwestern paper reported *COMPUTER SAYS COUNTRY GOING BROKE* in two-inch banner headlines. At the same time, sporadic outbursts of violence began to occur, moving in an accelerating spiral into the full-blown national Health Riots of 1994.

It was a time of fear and anguish for the doctors and others involved in health care. Blamed for increasing health care costs, lack of concern, and inhumanity toward their patients, doctors became the scapegoats for an angry and vengeful public, with medical leaders all over the country the victims of public attacks by rioting mobs. An American Medical Association annual convention was mobbed by thousands of angry citizens and

was forced to disband in a retreat that became a rout as police and National Guardsmen held back, fearful of involving an entire city in the conflagration. A major New York City hospital was invaded by a mob, the medical and nursing staff slaughtered, and the building set on fire, killing multitudes of aged patients unable to escape the inferno. Across the country, hospitals and clinic buildings were bombed, burned or occupied by renegade bands of reformers—and the cries of the Naturists, who advocated an end to all kinds of professional health care in a back-to-nature-and-home-remedies movement, were heard more and more loudly in the leadership of the rioting mobs. Ultimately the convulsive events involved virtually everyone. The stock market, long uneasy, dropped through the floor in a wave of emotional selling unequaled in sixty years. Labor unions threatened massive general strikes against excessive taxation and old-age benefit programs their workers were forced to support, and as unemployment rose, laborers and executives alike joined in the protest marches and riots aimed at the doctors.

It was in the midst of this accelerating turmoil that a small and mild-mannered man at a Midwestern university dropped a sociological bombshell that was destined to revolutionize the nation's entire concept of medical care in the space of a few short years.

Rupert Heinz was certainly an unlikely candidate for fame of any kind. Doc had met him once, as lecturer at a medical meeting: a shy, tweedy pipe-smoking man who was far happier working out biomathematical formulas in his dusty office at the University of Minnesota than giving lectures—or making headlines. Few doctors even understood clearly just what it was that a biomathematician did, and Heinz himself had trouble explaining—but years of statistical study of the occurrence patterns of certain diseases had led Rupert Heinz to a quietly frightening hypothesis: that the miracles of medical

progress in the nineteenth and twentieth centuries might, in some cases, have ultimately led to more human illness, rather than less.

An early study of Heinz's had dealt with diphtheria, a dangerous throat infection known for centuries as a destroyer, or crippler, of children. Commonplace in the early 1900s, diphtheria had killed as many as one out of every ten of its victims—until widespread vaccination of children in the 1940s and '50s had brought the disease almost to a standstill. A medical triumph, it had seemed, until sporadic outbreaks of a more virulent, drug-resistant form of diphtheria began striking adults in the 1970s, with antibiotic treatment now ineffective and the death rate rising to over 60 percent of all victims. Within another ten years widespread epidemics were sweeping the country and mass immunization campaigns were needed to damp the flame of a dreadful disease running wildfire through a population left naked of any natural resistance.

Rupert Heinz had analyzed this pattern and come up with a frightening thesis: that medical intervention *in itself* had contributed the lion's share to the massive spread of this virulent infection. Without immunizations earlier in the century, natural resistance would have kept the milder disease under control; now even a massive immunization campaign would be no more than a stop-gap, with horrible future epidemics to be expected as new virulent strains of diphtheria developed in the population. Heinz reported his predictions, almost apologetically, in an obscure scholarly journal, and there they remained, largely unnoticed, as the diphtheria epidemics raged on.

A second study, however, dealt with diabetes, and this time Heinz's findings could not be ignored. Throughout most of history diabetes had been a relatively uncommon affliction that was uniformly fatal for lack of any effective treatment. As a disease strongly in-

fluenced by heredity, the fatal nature of diabetes served as a powerful limitation on its spread. Death often occurred during childhood, and even in adulthood the development of a pregnancy so greatly accelerated the destructive nature of the disease that few children were born of diabetic mothers. For centuries the disease, cause unknown, had remained stable and uncommon, a tragedy for those few who developed symptoms, but with very few of them passing the disease tendency on to their children.

The discovery of insulin in the early 1920s changed all that. For the first time, diabetes could be treated, and more and more victims survived long enough to have diabetes-prone children. By the time of his study in 1993, Rupert Heinz estimated that as many as 40 percent of the nation's entire population carried at least one part of the complex genetic linkage for diabetes, up from 37 percent just ten years earlier. Looking into the future, Heinz quietly predicted that, as a result of medical intervention in detecting and treating diabetes, as much as 85 percent of the population would be carrying some diabetic factors within another forty years, and that some 42 percent would be actively diabetic. His message was simple and to the point: keep treating diabetes the way it had been treated for three quarters of a century and *everybody* would be diabetic or diabetes-prone by the late part of the next century.

When news reporters picked up the story and accused Heinz of doom-singing and rabble-rousing, the man merely withdrew, refusing to discuss his work any further. He had evolved complex biomathematical equations predicting the spiraling incidence of the disease; he *knew* his findings were valid; but he had no solutions to offer. Inevitably his reticence was interpreted to mean that he was concealing something, and soon he was the focus of alarming newspaper headlines: *DOOMSDAY SCIENTIST REFUSES COMMENT ON WORK!*

CAN DIABETES BE STOPPED? TOP EXPERT WON'T TALK! As the storm raged Heinz withdrew still further, extending his studies to mental illness, ulcer disease, hypertension, cancer—the whole spectrum of illness that had been affected by medical intervention over the past centuries. And in each of these areas he found the overall occurrence of these diseases *steadily increasing* as a direct result of medical interference with age-old natural balances.

Of course, it was all only theory, the uncorroborated findings of one man working in a field of science that was inexact at best. For all of the scare headlines, Heinz's predictions might still have been ignored except for the interest of Charles Lafferty, a young sociologist eager to find a way around the grim pattern that Heinz had forecast. Working at Stanford, Lafferty began collaborating with Heinz to develop certain "solution constructs" that might be used to turn the course of history and prevent or minimize the medical and social disasters that Heinz's work predicted. Almost immediately the federal government classified this work as top secret and provided money for the development of a practical Eugenics Control program to curb the transmission of genetically linked diseases, even as the Secretary of Health Control and other official spokesmen were publicly scoffing at Heinz's predictions and denying the implications of his work. But within months Heinz and Lafferty reached a startling and unpalatable conclusion: that a eugenics program alone would not be enough to turn the tide. Even with compulsory sterilization of all victims of diabetes, schizophrenia and a dozen other heredity-connected diseases and the compulsory euthanasia of all identifiably defective babies, the destructive spiral would continue as long as widespread medical intervention continued. Only if *all* individuals who wished to have medical treatment were first sterilized was there hope that the spiral could be broken.

It was this staggering concept that Heinz and Lafferty finally settled upon as a tentative working approach. Eugenics control—weeding out defective genes—and a diminishment of medical intervention had to be inextricably tied together. Health care, in the form of government-run, tax-supported clinics, hospitals and medical staffs would continue to be available throughout the land, providing a high quality of medical care to every citizen, from cradle to grave, who could qualify. And qualification for that medical care would be simple and easy to achieve: the only requirement for treatment of any ailment would be that the patient first be sterilized. Those who wished to have children would, of course, be free to do so—at the sacrifice of any type of legal medical care. Once such a program was instituted, Heinz and Lafferty predicted, the economic crisis centering on health care delivery would be relieved almost immediately, and the program would show measurable eugenics effects within forty to fifty years. By that time it would also show measurable and beneficial impact on population curves; the population crisis would be over. If the program was ultimately applied on a worldwide basis, Heinz and Lafferty calculated, dependence on health care facilities would diminish to a bare minimum within a few decades and world population figures would ultimately be reduced by two-thirds.

As a tentative working program, the Heinz-Lafferty proposal was carefully worked out—but their work was far from complete. A hundred details of the plan remained to be tested—the impact of the proposal on religious convictions, the attitudes the doctors might take, above all the attitude of the general public, all had to be studied in meticulous detail. A dozen more years of work were needed to crystallize the plan into sound policy, and neither Heinz nor Lafferty had any idea that the federal government might ever try to implement such a program before that vital work was done. But they had

not counted on the sheer desperation of the government at the precise time that their preliminary studies were completed. Faced with an economic and political crisis, with the spreading Health Riots and threatened social disintegration, the aged President and his aged Congress were aghast at any program which sought to limit medical care in any way whatever. But an ambitious and liberal young opposition saw in the proposals the makings of a revolutionary reform program. Even as the incumbent administration floundered, the opposition broadcast the Heinz-Lafferty proposals as a panacea for the future, and in 1996 a frightened and riot-weary electorate bought the package in a landslide vote of historic proportions. Within sixty days after inauguration the tentative, untested Heinz-Lafferty proposals had been written into law, and for better or for worse the nation moved down a murky road of social and medical revolution.

No one at the time could see the end of that road, least of all Heinz and Lafferty, who shouted themselves hoarse warning that their work was incomplete, or the new President, to whom doing something seemed synonymous with improving something. Yet as the fledgling program was instituted, the stage was set for the emergence of a strange and extralegal medical black market, existing solely to thwart the law. It was into this world of underground medicine that Billy Gimp, with his shadowy personal history, his youthful ambition and his half-repaired club foot, found work as a bladerunner—a procurer of illegal surgical supplies; and it was in this same underground world that men like Dr. John Long and multitudes of his professional colleagues set about with dogged determination to defeat a system they considered intolerable to the ideals and training of physicians anywhere, any time. And now, some eighteen years later, the network was tightening and the struggle reached a new level of ferocity, with no end in sight.

III

DOCTOR LONG! DOCTOR JOHN LONG! The paging speaker on Doc's office wall broke into his reverie. With a sigh, he reached for the phone switch. "Doctor Long? This is Miss Rupert on Nine North. We're about to give Mabel Turner her preoperative medication. Did you want to see her before your surgery?"

"Oh, yes, of course. I'll be right there." Doc checked his watch and saw that he had just an hour's leeway before he was due in the operating suites. As he had expected, the computer had designated Mabel Turner as his first case this morning, to be performed with a full neuropantograph hookup to trace and record his every move, his every surgical decision from beginning of the case to the end. And in this case Doc was ready and waiting for them with a large measure of undisguised glee. It would be a case to be remembered. For weeks now Doc had been carefully planting erroneous data in the computer record of Mabel Turner's case history—a false lead here, a manufactured response there, a subtly incorrect clinical summary from one hospital visit, a totally erroneous electrocardiograph interpretation from another visit—in short, a craftily designed patchwork of misinformation and half truths about the patient's clinical course, all concocted for the sole purpose of mislead-

ing the computer into a slightly erroneous diagnosis, prognosis, and plan for treatment.

And it had worked. As a result of his efforts, Mabel Turner had been identified by the computer as a high-risk, desperately ill cardiac case, candidate for an immediate heart transplant—precisely the kind of case that Dr. Katie Durham and the other medical directors of the hospital so eagerly wanted him to perform with a full neuropantograph hookup, a case involving multiple difficult, perhaps even life-and-death, surgical decisions to be made from opening to closing. Now Doc smiled to himself in satisfaction. With the case finally scheduled, despite his formal, almost ritual, objection to the neuropantograph hookup filed with Dr. Durham, there could be no backing out without extreme embarrassment in high places. For all their claims and contentions, Health Control authorities were really not all that certain of the reliability of their computerized diagnosis and prognosis systems, so that the error could as well have arisen in their system as in Doc's machinations, and only a time-consuming and costly retrospective analysis would spot the difference. And now that they were boxed in, the case would give him a splendid opportunity to play hob with the neuropantograph, first confusing it thoroughly at the discrepancy between the procedure scheduled and the procedure he intended to do, and then almost certainly sending it into a paralyzing feedback crisis when he, as surgeon-in-charge, changed the projected procedure entirely.

And change the case he would, for he had no intention of performing a cardiac transplant on Mabel Turner this morning or any other time. He had never intended to.

Walking down the corridor from his office, Doc nodded to the occasional intern or resident who hurried by, then paused to wait at the northside elevator bank. Moments later the elevator dropped him off on the ninth

floor, devoted exclusively to pre- and postoperative patients, and he hopped a jitney moving briskly down the main central corridor, passing wing after wing of perpendicular ward corridors. Hospital No. 7 was loudly acclaimed by Health Control authorities as one of the most modern and best designed of all the new federal Hospitals built in the last decade, with each patient bed within comfortable view of an outside window, with holo-TV stages with multiple projectors in each room so that each of four different patients could watch a different program projected on the same holography stage at the same time without any overlapping or interference of the images. With its thirty-eight stories, and thirty-six wings branching from the main central corridor, the hospital housed four thousand patient beds and, as usual, was filled to within 10 percent of capacity at all times. What was more, internal hospital transit was so efficient that a doctor could, if necessary, travel from the main lobby to the farthest end of the top-floor main corridor in no more than fifteen minutes of travel time, a significant improvement over some of the earlier pentagonal and hexagonal hospital designs in which just finding a patient's bed might well consume an hour of a doctor's time.

Mabel Turner had already received the first stage of her preoperative medication and when Doc finally reached her room, the small, chipper middle-aged woman was relaxed and a little drowsy, but still alert. Doc greeted her like an old friend, which indeed she was, a patient that Doc had been following closely in the outpatient clinics for nearly three years before the decision for surgery had to be taken. Now he rolled the bed into an upright position and carefully checked out the woman's vital signs, read the nurse's notes on her chart, then began his final pre-op examination. "No fever," he said. "That's fine. I warned you not to get a cold at the last minute. Blood pressure . . . well, that's behaving. Let's

just listen to you breathe." Finally he finished and smiled at her. "You're in good shape," he said. "I don't think there'll be any problem."

"And you're planning to do just one artery?" the woman queried.

Doc frowned. "Let me hedge . . . okay? Your angina has been getting progressively worse even with the care you've been taking of yourself, and the angiograms showed that you have definite blockage of at least two of the three coronary artery branches. We'll use your splenic artery—you don't need that anymore anyway—for a graft to bypass at least one of the blockages, but if I can get away with doing two, I'd like to do it. And if the third shows signs of impairment, I may do that one too, assuming we get good flow from the first one or two."

The woman sighed. "It'll be good to have it over with, after all this time."

"It's been a long wait, hasn't it? But we had to be sure that it was necessary, absolutely necessary, before we made up our minds. Then the trick was to get you scheduled before you got into irreparable trouble." He chuckled. "The computer still thinks you're going to have a whole-heart transplant. We're going to fool it all the way."

"You don't like that computer, do you?" Mabel Turner said.

"Not for sour apples, I don't. But you don't need to worry. I'm so used to the pantograph connection that it doesn't bother me, and I suspect the computer is going to sign out long before we get down to serious business. And above all, in that operating room, I'm the boss."

The woman smiled. "Okay, Boss," she said. "So I'll see you . . . tonight?"

"At least by then. I'll be seeing you sooner, you just won't know it." He nodded as a nurse came in with a hypodermic syringe, second stage of Mabel Turner's

premedication, and he took the opportunity to bow out.

Ten minutes later he was in the Cardiac Operating Suite #4, his customary place of work. In the dressing room he slipped out of his street clothes and into the green operating pajamas, laced shoe-covers onto his feet, and poured another cup of coffee. Then he found an empty dictating booth, dialed in Mabel Turner's name and chart spool number and, when the signal light blinked on, began to dictate his preoperative physical examination, preoperative diagnosis, and operative prognosis on the patient, who was even now being moved into the operating suite.

His dictation made a thoroughgoing jumble of the computerized history of Mabel Turner. Through painstaking and subtle selection of data previously supplied, the computer had been compelled to conclude that the patient was suffering from massive and intractable congestive heart failure, incipient kidney failure, uncontrollable hypertension, and a life prognosis of six days plus or minus ten hours unless a cardiac transplant could be performed to supply her with a new, young, and healthy heart to maintain the excessive burden. Extensive tissue typing had been performed; hypimmune globulins and anergens had been readied in the serum bank to help lower the patient's tissue rejection threshold to manageable levels; the heart bank had been searched for an organ of the precise immunological type necessary, and the organ finally selected had already been thawed and perfused with plasma in readiness for the operation. Meanwhile, the neuropantograph receiver hookup had been made ready and waiting for Doc's entry into the operating room, and the vast array of electronic computer-observers and computer-copiers charged with transmitting neuropantograph images into solid-state circuit impulses stood ready with a sort of ghoulish mechanical anticipation for the opening stroke of the scalpel.

And it was all a fraud. Mabel Turner did not have congestive heart failure, nor did she have kidney failure, nor hypertension, nor was she a valid candidate for a cardiac transplant. What Mabel Turner really had was a history of progressively severe episodes of heart pain whenever she exerted herself, as a result of the gradual plugging up of the coronary arteries supplying her heart with calcified fatty deposits, the result of long-standing atherosclerosis. The surgery for which she was really a candidate was a simple, almost basic, operation in which segments of no-longer-needed splenic artery would be taken and grafted in to bypass the clogged coronary arteries in order—if all went well—to supply her starving heart muscle with a new and refreshing supply of freshly oxygenated blood. And that, of course, was the procedure that Doc was really going to do, with the neuro-pantograph receiver searching his brain second by second, and the adjoining computers becoming increasingly puzzled, confused, confounded—

In the scrub room Doc prepared for the surgery, then backed through the swinging door into the operating room to receive sterile gown, gloves and mask. Then, sitting on a stool, he waited as a circulating nurse brought the lightweight neuropantograph helmet and placed it over his head. He felt the momentary prickle as the scalp contacts were secured, insuring an uninterrupted pickup of neuro-electric signals from his cerebral cortex throughout the surgery. Glancing up at the glass-panelled pantograph control room overhanging the operating theater, Doc saw the pantograph operator working his control panel, testing circuits and contacts in preparation for monitoring the strange human-computer neural hookup that would pick up echoes of each motor impulse and sensory impulse that passed through Doc's brain and record them as sequences of punched molecules arranged and rearranged like uncountable multitudes of colored lights on a movie marquee in the col-

loid-filled bank of activated Hunyadi tubes that filled the room adjoining the operating suite. There those patterns of shifting molecules would be held in a colloidal suspension in the depths of the tubes, later to be scanned and impressed into permanent computer memory banks for analysis and, if all went well, ultimate programming into robot guidance units for use in future operations. Someday, it was the fond expectation of the Department of Health Control, enough of such units, working together, would have sufficiently refined the entire cardiac transplant procedure into its basic moves and judgments that robot operators could take over the operating room work, requiring only the monitoring of a living surgeon. And it was this fond expectation that Dr. John Long was determined, at any cost, to thwart.

Now, as the three resident surgeons who made up the rest of his operating team came into the theater for gowning, Doc saw the operator at the control panel nod, his signal to begin testing his pantograph contact. Nodding back, Doc began a pre-ordered ritual of motion, first lifting his right hand, then his left, right arm, left arm, right shoulder, left shoulder, with the operator nodding encouragingly with each move, then saying into the loudspeaker, "That looks good, Doctor Long, I think you have a good 'graph contact."

"Great," Doc said sourly. "May the leads short out on you."

"Aw, come on, Doctor. Just forget about it, it won't bother you any. And this should be a dandy case to record, according to the chart." The operator fed a pack of chart cards into his reader, began flipping through them. His forehead creased in a puzzled frown. "Uh . . . Doctor . . . hold it just a second. Something seems to be off here."

"Nothing's off," Doc said, rising from his stool. "The patient's ready to go."

"But, Doctor, I don't think you've got the right patient—check this ID, will you?"

A name and code number appeared on the operating room read-out screen. Doc already knew it by heart, but he went through the motions of checking the wristband of the now-anesthetized patient on the operating table. "It checks," he said. "This is the one."

"But the history doesn't check and neither does your pre-op note. Computer-Central just flashed an alarm up here—"

"Nonsense. Computer-Central is just confused."

"Well, I'm not so sure. Isn't this a transplant candidate?"

"*Transplant!*" Doc tried to sound indignant. "Not in my book. We're doing a splenic artery graft and coronary bypass, not a transplant."

"Then why has the heart bank got a heart ready?"

"You'd better ask Computer-Central about that. I didn't order it up. I think Central's confused—"

"Well, so is the pantograph unit, it's getting all the wrong signals—"

"Too bad, but I can't help it now. I've got surgery to do." Doc nodded to the residents, who had been standing by frowning in perplexity at this exchange, and together they moved to the operating table. Doc raised his eyebrows at Anesthesia, got an answer nod, and began his case, leaving the pantograph operator still spluttering over the loudspeaker.

It went well. He had worked smoothly with this team of men for months; he knew what he could expect from them, and they knew, by and large, what he would be doing and what he would want them to do. With all his mind concentrated on the work at hand, he forgot the neuropantograph, forgot the increasingly frantic operator in the control booth, concentrated his attention on the feel and function of small, quarter-inch-thick blood vessels carrying blood to a weakened and suffering

heart; concentrated on selecting the graft vessel, removing the spleen it served, tying it off and snipping segments of it for preservation in a saline bath. The angiograms had been right, two of the woman's coronary arteries felt like hardened pipestems near the place where they branched off from the aortic valve to supply the heart muscle, and he could see some evidence of small scars on portions of the heart, confirming the electrocardiograph's evidence that Mabel Turner had probably had at least one or two minor coronary attacks in the past, even though she had never had a "heart attack" that she recognized as such. Fortunately, the third major coronary artery branch seemed full and open, so only two obstructed branches had to be bypassed. Doc proceeded with the work, suturing in a segment of splenic artery to bypass the worst-blocked vessel, seeing the heart muscle blanch and begin to fibrillate as he clamped and removed the hardened segment, then seeing the muscle darken with blood again as the bypass artery segment was attached in place. As one of the residents used the defibrillator to restore normal heart beat Doc prepared the next segment of splenic artery, totally oblivious to the people around him, to anything around him but the patient and the operating field and the quick sure hands assisting his in their delicate work.

"Doctor Long! Will you please explain to me just precisely what you are doing to that patient?" It was a woman's voice, furious over the loudspeaker, and as Doc looked up, he saw a woman in hospital whites in the control booth next to the pantograph operator, staring down at him.

"Splenic artery bypass of two coronary arteries," Doc replied. "Why?"

"The computer thinks you're murdering her."

"Nonsense. She looks pretty pink to me."

"She may look pink to you, but your pantograph computer hookup can't make any sense at all out of the

procedure you're doing. You're supposed to be doing a transplant, and it's practically climbing up the wall."

Doc paused in his work and looked up at the woman. "Now, Katie, just relax," he said. "Your computer has gotten confused somehow. All this woman needs is a bypass artery or two, and her heart will be as good as new—what's that?" He turned to one of the residents. "Yes, of course, get X-ray in here now, so we can document the flow through these two segments. Should be nearly perfect." He looked up at the control room again. "Sorry, Katie. What was that, now?"

"I said *the computer is not confused*," the woman said. "It is acting on data which you and others have supplied it, and either that data has been deliberately falsified or else you're performing the wrong procedure on that patient." Her voice was deliberately paced, and Doc could feel the fury behind the words.

"Look, Katie, can't we hash this out a little later? I've got this patient open like a watermelon right now, and I really need to concentrate. Forget your computer, the surgery is going fine."

"Well, I won't forget the computer, and neither will you. This sort of thing has gone on just once too often." Dr. Katie Durham turned to the pantograph operator, checked the controls. "Oh, hell, turn it off, or we'll have the whole thing paralyzed with feedback. Get this record, as much as you can, to my office, and do it fast. As for you, Dr. Long, I want to see you in my office as soon as you finish here, and I hope you don't make me issue an official order."

"Fine," Doc said. "Just one thing, though—I'm supposed to monitor a robot case in Number Five operating room when I'm through here. The first is only an appendectomy, but the second is that robot heart transplant you've been so eager to schedule. Do you want me to scratch that?"

"Oh, no, not that." The woman looked annoyed. "Just come up whenever your schedule is clear."

"Fine. For a late lunch, maybe?"

"No lunch for me, thanks. This isn't a social engagement."

Doc watched as Dr. Durham left the control room, followed shortly by the pantograph operator. A nurse said, "He's disconnected, Doctor, do you want that helmet off?" and he nodded gratefully and tipped his head down so she could remove it. "Tell them in Number Five that I'll be through here in half an hour, so they can get set up," he said.

By now the radiology department had the special OR X-ray machine set up, so that Doc could inject the dye into Mabel Turner's newly bypassed coronary arteries. The preoperative plates hung against the wall. In a few moments the post-op plates were hung up beside them, still dripping. Where only a trickle of dye had passed through the two coronary artery branches before the surgery, there was now excellent perfusion of the entire heart muscle through the grafts. Doc sighed and nodded to his residents in satisfaction. "Looks good," he said. "I think this gal may just do well."

Doc waited until his residents were well under way with closing the patient's incision. Then he broke his own scrub, tossing his gown and mask into the disposal unit outside the operating room, and went down the hall to a doctor's dressing room. Here he found some coffee and began dictating his operative note on Mabel Turner, a narrative account of precisely what he had done in the course of the operation, including why and how. With this chore completed, he checked to see if they were ready for him in No. 5. The circulating nurse there reported that the monitoring crew were just scrubbing for the appendectomy, and that the robot-operator was ready and awaiting activation. For this first case the robot had been programmed from neuropantographs of

one of the senior surgical residents; in the second case the machine was programmed from Doc's own neuro-pantographs. The first case had been run in first as an emergency, and since Doc had the operating room scheduled for his case, he was assigned to monitor the robot on the appendectomy too.

Walking down the hall toward the No. 5 operating room, Doc saw Molly Barret emerging from the nurse's station. She caught his eye, and they stepped to the side of the corridor to confer. "Doc, have you heard anything from Billy?"

"Not a word. Have you?"

She shook her head. "Nothing, and when I tried to call I got the same old disconnect signal; he hasn't re-connected since the bugging yesterday. Doc, I'm really worried."

"It's clumsy, all right," Doc conceded. "I don't know how I'm supposed to do that case I have scheduled tonight without any blades."

"I'm not worried about your blades, I'm worried about *him*," Molly said sharply. "For all you know he may be sitting in jail somewhere, and you complain about inconvenience!"

Doc looked at her. "Well, he's not in any jail or we'd have heard about it long since. Anyway, they couldn't hold him on a misdemeanor charge. He'd either ask for a computer-court hearing on the spot, or he'd go for bail. Either way they'd have to let him go, I think."

"But you don't know."

"No, not really." Doc sighed. "The best we can do at this point is wait for him to call. Check with me this afternoon; if we haven't heard by then, we'll have to do some tall figuring. But I've got to go now, I've got a case to monitor in Number Five."

"I know," Molly said. "You're also going to have some company, I think."

"What do you mean?" Doc said, startled.

"Dr. Durham is already in there, all scrubbed and gowned."

"Oh, oh. Then there *is* going to be trouble, if she stays for the second case. Because I'm going to pull the robot off that transplant just as fast as I can find an excuse."

Molly shook her head. "Doc, be careful. There's been talk that she's been onto you right along, and that she's going to drop the axe."

"I know. She was in the control booth during my last case when the computer almost went into feedback arrest with conflicting priorities. Well, I *thought* it was a little too quiet around here. But if she's going to drop the axe, then the sooner the better. Thanks for the warning, anyway."

In the scrub room adjacent to No. 5 Doc joined his first resident from the earlier case, and they both scrubbed in silence. As always in a monitoring case, there was a note of tension in the air, utterly unlike the air of quiet anticipation that preceded an ordinary doctor-performed surgical procedure. The use of a pantograph-programmed robot to perform routine surgery was not exactly new anymore, but it was still new enough, and risky enough, that all involved were always extraordinarily nervous. Of course, the robot's programming was always exceedingly thorough. Drawn from exhaustive computer analysis of hundreds of neuropantograph records of a human surgeon performing the same kind of case, the programming theoretically covered virtually all the judgments and decisions that might conceivably have to be made. Each step in the surgery, no matter how simple or how difficult, had been etched into the robot's computer memory directly from multiple on-the-spot experiences of the real surgeon. According to Health Control claims, the robot so programmed could, in theory, perform the given surgery with even more skill and elasticity of judg-

ment than the surgeon himself—but nobody was yet quite willing to let a robot-operator proceed unmonitored. Each robot case was closely observed by a human surgical team scrubbed and gowned and ready to step in at any moment the chief surgeon thought necessary. And always, in the minds of the monitoring doctors, there was the dreadful specter of that nightmare case, never yet encountered but always possible, in which the robot-operator would make some death-dealing misjudgment from which a patient's life could not be salvaged even by the most speedy intervention of the monitoring team.

In the operating room Doc nodded to the slender figure waiting there, masked and gowned like himself. "Well, Katie, you decided to come watch?"

The woman regarded him with cold green eyes. "After that last performance I decided maybe I'd better."

"It's just an appendectomy, nothing can go wrong," Doc said.

"I don't expect any problem with the appendectomy. Even you can't argue with perfectly straightforward pantograph training from Dr. Lerner on something like that. It's the transplant I'm worried about."

"Then that makes two of us," Doc said. "It's a complex procedure, no two of them anything alike. No robot should try to tackle one."

"And you've been doing your best to block it," Katie Durham said.

"And I still will, the moment there's the slightest doubt."

"Not if I have anything to say," the woman said.

"Now, Katie, if it comes to that, you don't," Doc replied. "Better remember that. In this room I'm the surgeon and you're the guest. No more. What I decide goes."

Katie turned away with a sniff as the scrub nurse signaled to Doc to check the positioning of the shiny ro-

bot-operator over the draped patient on the table. "Better center it a bit more," Doc murmured. "No, the other way . . . fine! Okay, that's good. Go ahead and activate it."

With a little shudder the machine came to life. Two flat sensing arms moved across the patient's exposed abdomen, registering each subtle shift in plane, testing for texture of the skin and thickness of the fatty subcutaneous tissue. Two more metal arms moved up to join the first two, one of them pausing to be loaded with a scalpel by the scrub nurse. That arm moved down in a swift, precise stroke, laying open skin and fatty tissue in a neat three-inch incision in the lower right quadrant of the patient's abdomen. One by one, pinchers caught the bleeding skin vessels, electrocauterizing them, and then, with incredible swiftness, tying them off with fine gut sutures more quickly and expertly than any human hand could have achieved. With this accomplished, two soft finger-like probes began separating the muscle layers down to the peritoneum, pausing only to tie off one or two more bleeders as quickly as they appeared.

Watching it, Doc felt a familiar queasy feeling, a sense of sickening dread as the surgical machine moved step by step along in the procedure. The steps were the steps that he would have taken if he had been operating, each accomplished with neat exactitude, but the sensors and probes were not human fingers. They could feel only what they had been programmed to feel, react in their contact with human tissue only as they had been programmed to react, yet there was an appearance of inhuman perfection and finality to the movements that sent chills down Doc's back. He began perspiring as robot fingers pinched up the peritoneum for a robot scalpel to incise; then two rubber-clad probes entered the peritoneal space, lifting up the membrane so that the incision could be lengthened to the length of the skin incision. Doc watched closely as a long, round-ended

sensing probe entered the peritoneal space and began a systematic search for the appendix, drew the cecum and appendix up through the incision for surgical excision and repair.

And as Doc watched, ready to move to the table at the first irregularity, he became aware that Dr. Katie Durham was watching him as well as the robot at the operating table. Doc felt his hands clench and unclench as the machine moved slowly, regularly, flawlessly, from one step to the next. With the appendix removed and the stump cauterized, delicate metal fingers applied a silk purse-string suture around the stump. When one of the sutures tore out in the process, the robot fingers paused, then returned to replace the torn suture before proceeding. Finally, a metal probe pressed in on the stump as the purse-string suture was drawn in, snugly but not too tightly, the amount of tension accurately sensed and controlled by the machine's complex feedback mechanisms. Next the robot inserted a sensor into the patient's abdomen, replacing the loop of intestine from which the appendix had been removed to its normal anatomical location.

Almost before it was begun, it seemed, the appendectomy was finished. But the robot-operator was not through. Two more probes now entered the abdomen through the incision, one sensitive to pressure, the other equipped with a light and a lens at its flexible tip. Together they began a delicate exploration of the interior of the abdomen, moving from organ to organ, recording visual and tactile impressions for automatic comparison with images stored in the computer's memory bank. As the machine proceeded, Doc almost forgot for a moment that it was indeed a machine at work; there was an uncanny illusion that he was watching a slow, meticulous and steady-handed surgeon using metallic grapples to do the work, and he had to shake his head to throw off the impression.

Then, in the midst of the exploration, the robot stopped dead and a signal light began flashing. The scrub nurse looked up. "Dr. Long? The machine indicates positive findings in the right upper abdomen during its exploration. Will you confirm, please?"

"What does it say it found?"

The nurse read the lines appearing on the robot's viewing screen. "It says, 'Hardened mass in right upper quadrant in vicinity of gall bladder.' Do you want a differential diagnosis?"

"Yes, let's see what it says."

Almost instantly the read-out began to change. Doc walked across to peer at the screen. "Yes. Um, hum. Probably gall stones, rule out primary cancer of the gall bladder, rule out common duct obstruction of unknown etiology, rule out . . . yes, well, it's got it down all right. Now get that probe out of there so I can see what it is." Stepping to the table, Doc pushed the sterile probe out of his way, enlarged the incision and then inserted his own gloved hand into the wound while the nurse held a retractor. Finally he withdrew his hand, nodded to the nurse to let the robot proceed, and crossed back to stand beside Dr. Durham. "Gall bladder full of rocks," he said. "We'd better not fool with them right now, with no history of symptoms. Time enough for that later."

"Are you sure that's what it is?"

"Sure, I felt them."

"But you still have to consider the other possibilities that the machine listed."

"Oh, it's possible to have a tumor or obstruction of some sort in addition to the stones, but the stones are there."

"Then the machine wasn't overreacting?" Katie Durham said. "That's been a common charge, you know, that the machine can't distinguish fine dividing lines of diagnosis and therefore produces unwieldy lists of pos-

sible diagnosis that the doctor then has to wade through later."

"Well, I guess this machine did just about right," Doc said reluctantly. "Except that we wouldn't have gotten an upper abdomen exploration if a surgeon had been doing it—too small an incision, too hard on the patient. The best he would have done would have been a laparoscopy, just putting a light in there to look; so I guess you're one up on us there."

"You also have to admit that this has been as smooth as silk," Katie said. "Not a flaw, not a false move. We really didn't need to use an operating room at all. One of the robot tables like the Davies group has been using on dogs would have kept it all in a perfectly enclosed operating box, no chance for contaminated surgical fields, no need for scrub nurses or assistants. That robot has eight pairs of sensor-arms it can use, all at the same time, if necessary."

"Sure, I know," Doc acknowledged. "Everything but human judgment."

"But the pantograph even programs in a simulation of that."

"And that's just what it is . . . a simulation," Doc rejoined. "Unfortunately, some cases just plain require the real thing. Like this heart transplant patient coming. You've been trying to schedule a robot transplant case for months, right?"

"Years," Katie Durham said quietly. "The first one ever tried. But there's got to be a start sometime."

"Well, you just watch. See for yourself how far off the mark the machine goes on *that* one before I have to step in." And with that, Doc turned and stalked back into the scrub room to strip off his gown and mask and rescrub. There was no longer any doubt in his mind now that the time for dissembling was past. With Katie Durham monitoring his every move in the next case, the fat was really in the fire.

IV

Later on, Doc knew, it would be perfectly clear to any objective observer that he had never had the slightest intention of allowing a robot-operator to carry out a cardiac transplant on a patient under his care, but at the time he gave every appearance of finally acquiescing to the procedure that Hospital Administration had been pressuring him to permit and monitor these many months past. With the steady, almost catastrophic, decrease in newly trained physicians and other medical personnel in recent years, all the government Hospitals were deeply committed to ever-increasing computerization of all medical services. Diagnosis had become almost completely computerized as much as ten years previously, and many of the medical specialties were rapidly following the same path, as fewer and fewer trained physicians were available to provide care, and the few that were left were increasingly occupied with monitoring the computerized services, acting as overseers and computer consultants rather than physicians.

Surgery, by far the most technically demanding of all the specialties, had naturally resisted computerization the longest. As little as ten years before, expert surgeons had insisted flatly that programming robots to do even the most simple surgery could never be accomplished. Too much, they said, depended on the skilled fingers and refined surgical judgment that no machine could

ever emulate—and they might have been right except for the development of Hunyadi's neuropantograph and the whole new approach to direct, one-to-one surgeon-to-computer programming system the neuropantograph made possible.

The neuropantograph, of course, changed the whole picture. With its use the surgeon, in effect, programmed the robot-operator's computer directly by what he did or did not do at the operating table. In a sense, the surgeon's entire surgical performance at every level was captured in molecular miniature in the colloidal gel of the pantograph's activated Hunyadi tubes, and thence transferred directly to the memory circuits of the computer in usable form. In theory, by repetitive neuropantographic scan of the same surgeon doing the same kind of procedure multitudes of different times, the number of surgical eventualities that the computer could be programmed to face and act upon would be increased exponentially until, in the end, the risk that the computer might encounter a problem or complication it could not handle was reduced to the point of the negligible.

Even this risk, however, could theoretically be minimized by having human surgeons stand in and monitor computer-handled cases. At first only the simplest procedures had been attempted, but as the robot-operators proved themselves in the operating room, more and more complex procedures were being programmed and run. Now there were those enthusiasts from Health Control and Hospital Administration—including Dr. Katie Durham, administrator of Hospital No. 7—who optimistically contended that there was no surgical procedure too complex or too demanding that a robot-operator could not be programmed to handle it; and there were surgeons like Dr. John Long who used every resource at their command to prove that there were types of difficult surgery that the robot-operators could not manage, now or ever. Today was the first attempt to

allow a robot-operator to perform a cardiac transplant from beginning to end, and Doc's responsibility was clear-cut. As the "teaching surgeon" whose neuropantographs had been used to program the robot's computer, he was assigned to monitor the surgery, to detect any errors or misjudgments that might occur, and, ultimately, to bail the patient out if anything went wrong.

During the appendectomy done previously, Doc had been content to let things go as they would. Thousands of robot appendectomies had been performed by now, and the monitoring doctor only rarely needed to intervene. But for this case he had his full surgical team on hand, scrubbed and gowned in the operating room, ready at a moment's notice. Dr. Katie Durham stayed back from the group, watching closely but remaining discreetly out of the way. As the robot-operator began the procedure, Doc kept a careful eye on the anesthetist, checked the robot-operator's continual monitoring of the patient's heart rate, electrocardiogram, and electroencephalogram. The machine made the customary incision, opening the patient's chest widely and tying off bleeding vessels before proceeding. As it moved into the chest with three of its sensor-arms, Doc said, "Hold it. There's too much seepage there. We've got to get those bleeders." He stepped to the table, tied off two or three small bleeding vessels before allowing the robot to proceed. Moments later he interrupted it again. "This has got to move faster, this patient's heart is about used up, and it's going to be fibrillating if we don't get moving. This machine had better get the bypass ready fast or this patient is going to be in trouble."

The machine responded hesitatingly, placing the clamps and arranging the tubes in preparation for switching the patient's circulation to the heart-lung bypass machine. Then, rather than making the switch to machine circulation, the robot hesitated again, then placed electrodes to monitor the heart's natural but ir-

regular rhythm. A moment later two additional sensor-arms moved to resettlement the bypass clamps again. The operating room fell dead silent as the robot moved placidly, methodically, delaying the bypass switch as it rechecked the electrocardiograph-monitoring leads. As the apprehension increased, Doc looked over his shoulder at Dr. Durham. Then he said, "Sorry, Katie, but I'm cutting this thing out and going in myself."

"What's the trouble?" Katie asked sharply.

"The machine's obviously confused. It senses the irregular conduction and anticipates that the heart will be fibrillating at any moment, but it can't seem to complete the bypass. It can't decide which to do first, stand by to defibrillate the heart or take the bull by the horns."

"Can't it handle the defibrillation and the bypass both at the same time?"

"It *should* be able to, but it's not doing it. I don't dare wait any longer; I'm taking over."

"Doctor, you're making a mistake. There's no urgency. The bypass connections are all ready any second they're needed—"

"I'm still not taking a chance." Doc brushed her objections aside and nodded to the nurse to inactivate the robot. With his team moving to the table, Doc quickly made the bypass connection that the robot-operator had started. Then, with the patient's circulation controlled by the heart-lung machine, he shocked the aging and damaged heart into inactivity. The replacement heart in its perfusion bath was readied, and the people around the table lapsed into a tense silence as Doc moved ahead with the procedure.

"Dr. Long," Katie Durham's voice was tight with anger. "You could perfectly well have let that robot go on."

"Sorry, but I'm the one who had to decide, and I decided no dice."

"That may be, but I'm not blind. Any confusion on

the part of that robot was programmed into it, and you were the one the programming came from."

"This patient could have been dead before the robot made up its mind to complete the bypass. It should have moved fast and without delay. That's a fundamental judgment."

"So you say," Dr. Durham said. "Well, you're going to have to say it to the Committee, I'm afraid, when I make my report."

"Whatever you say," Doc said sharply. "I'm busy now."

"Then let me see you in my office when you're through."

Doc sighed as the woman left the operating room, closing the door quietly behind her. He had known it would come sooner or later, it had been inevitable from the beginning, but now that he actually faced it he could not put aside the apprehension in his mind. He had been fighting the system from within as stealthily and subtly as he knew how, but now at last the fight was out in the open. And in that kind of fight, he feared, Dr. Katie Durham held all the trumps.

V

The sign on the door said *HOSPITAL ADMINISTRATION*, and below it: *KATHERINE DURHAM, M.D.* Beneath the name was the single word *PRIVATE*.

At the secretary's nod Doc opened the door and

stepped into a large, simply furnished office. The room was bright and airy, with large windows looking out across the city from their thirty-fourth-story vantage point. Now mid-afternoon sunlight was slanting across the city, throwing the mile upon mile of high-rise offices and residential complexes into sharp relief, bristling like dragons' teeth. At a desk near the windows Dr. Katie Durham stood up, smiling. "Come in, John, and relax," she said pleasantly. "Sorry about earlier. I'm afraid I lost my temper. Bad move, I'm told. I seem to be doing it more and more these days."

She was a small, striking woman with auburn hair swept severely back from her forehead, wide-set green eyes that could look inviting or frigid depending on the circumstances, and with finely chiseled features that held a freshness that belied her thirty-six years. In the operating room her trim figure had been lost in the bulky surgical gown, but now it was set off to advantage in the blue and white uniform with the white physician's jacket she wore.

Doc smiled and sat down across the desk from her. "I probably wasn't the soul of politeness myself," he said, "but that's the way it is with surgeons. Cardiac transplants just naturally make me nervous. But that's not why you wanted to see me."

"No, not really." Katie leaned back, regarding him somberly. "John, how long have you been working with Health Control now?"

He looked at her. "How long has the Department been organized? Eighteen, nineteen years? You've got it all there in my record." He pointed to the thick manila folder on her desk.

"Yes, you have quite a record." She leafed through the folder in silence. "You came to Hospital Number Seven in the spring of ninety-five, just after the Eugenics Control Program was initiated. That makes you one of

the original staff here. And before that you were in general practice with a group in Pittsburgh."

"That's right."

"And there was trouble there, I understand."

"The Health Riots were especially bad there," Doc said. "The clinic was fire-bombed, one of my partners killed—"

"And you had a wife and child involved?"

"A wife and a baby daughter . . . but that came later. Once they were gone there was no reason to stay there any longer. I came East, worked at the old Philadelphia General while Number Seven was being built and then came here. Surgical residency, then a staff appointment . . . well, it's all there on the record."

"Well, those were certainly bad years for you. weren't you pleased with the new health legislation that put an end to the riots?"

"Pleased?" Doc hesitated. "I suppose so, in a way. Health care had to be brought under control somehow, and anything was better than the total chaos during the riots. Sure, I was glad to see the new administration doing something to change things, but I wasn't happy to see them jump head-first into an obviously premature, untested experiment."

"You mean the Heinz-Lafferty Eugenics Control program?"

"That's right. The basic theory seemed to make sense, but there were a thousand variables that had never even had preliminary checks run when the government took the whole system and pushed it through. It was no wonder there was trouble; they were just begging for trouble."

"Like what?"

"Well, the Naturist movement, for one thing. You were probably too young to remember the fuss they put up. They not only opposed the mandatory sterilization to qualify for medical care, they opposed medical care

of any sort for anybody. Of course, the government thought the Naturists would just fall apart as soon as the Health Control program got working, but they didn't. They kept protesting, and they've gotten stronger every year."

Katie Durham looked up. "Yes, we've been having trouble down on the street every night for the last month."

"Well, just wait a few more weeks, until a few more really wild-eyed people join that crowd, then there's really going to be trouble."

"I can't argue that," Katie said soberly, "and I don't see any solution, either. But let's not get sidetracked on the Naturists. What other troubles do you think the Health Control program brought about?"

"Well, hell, Katie . . . look around you," Doc said angrily. "The biggest hole in the wall was the passive resistance. They should have foreseen how many people would fight against mandatory sterilization . . . and find a way around it. Essentially the whole program was a bid to bribe people into submitting to sterilization as the price of health care, and a whole segment of the population wouldn't bribe. God knows how many people have turned to the underground, they must number in the millions. It's a lousy brand of medicine, *nobody* can do good surgery on a kitchen table, but doctors and patients alike are into it because it's the only sane way to resist the government's program."

"Look, nobody can deny that the government's program was premature," Katie said. "*Nobody* likes all of it, not me or anybody else, but surely it's better than what was going on before."

"I'm not so sure," Doc said slowly. "If it is, then why all this problem getting new doctors in training? Medical schools are closing their doors for lack of students. Look at the staff of this hospital: every week another two or three doctors are leaving, and nobody's coming in to re-

place them. And the ones left are being worked into the ground."

"Exactly," Katie said. "And that's why the computerization program is so vitally important. It's got to be carried through as swiftly and efficiently as possible. That's one of my main jobs here: to computerize the hospital on all fronts, and try to iron out any snags along the way. Well, for the most part it's been going far better than we ever dreamed. The only real problems are the doctors that are fighting us, and that's why I asked you to come here this afternoon."

Doc spread his hands. "Look, if you're talking about that first case this morning, *everybody* was confused, including myself. I don't know why the computer set Mabel Turner up as a transplant case, you know yourself that diagnostic codes can get scrambled up easily enough. And as for that robot transplant case I just finished, the machine was obviously trapped in a feedback loop, two conflicting sets of directives, and it could have kept on vacillating until the patient died on the table. I *had* to step in on that one."

Dr. Katie Durham looked at him and shook her head. "I'm sorry, John, but it won't wash. Not this time."

"What do you mean it won't wash?"

"I mean I won't buy it anymore. You're lying. I've bought your excuses and explanations before, time and again, when you've had 'problems' on your cases, but no more. You've been letting it get so flagrant that *everybody* knows something strange is going on. Your own pantograph operator has gotten so confused he can't even guess what's going to happen next in a case of yours. He's been in here asking for a transfer five times in the past month. Your whole pantograph program is in a shambles, and the poor man doesn't understand what's wrong. He's blaming himself for the lousy results since he can't imagine who or what else could be to blame. Well, *I* know who's to blame, and it's not him."

Doc sat up in his chair. "Katie, I know I've said some pretty strong things about the pantograph program in the past, I've never really cared much for it. But you can't seriously claim that I've been deliberately sabotaging the program—"

"That's precisely what I claim, in so many words." Katie opened a desk drawer and drew out another folder. "I'm sorry, John, but it's no good. I couldn't really believe it myself until I started really digging into past cases and found that I'd opened a can of worms. All the simple cases—vein strippings and things like that—went fine, but every time there was a major lung or cardiovascular case, something always went wrong. I've checked out a hundred case records, and with every one it's the same story. Faulty input data, scrambled-up case histories, distorted diagnostic load, contradictory laboratory findings—you name it and it's there. In three different stages of a single patient's workup you'd have recorded three conflicting items in the history, all mutually exclusive items which could do nothing but sabotage the computer's evaluations."

"Look, Katie, everybody makes mistakes once in a while—"

"Yes, once in a while. But the same sort of mistakes repeated time after time in case after case? No. Those 'mistakes' were on purpose. And it didn't stop with your pantograph programming cases. The robot cases you monitored also went haywire time after time so that you had to step in and take over. So more than faulty diagnostic data was getting into the machines, the surgical technique data was also faulty. I admit that had me stumped for a while. I couldn't see how faulty technique was getting into the machines when the pantograph programming was coming straight from your own performances in the operating room. I couldn't see how you could be *unconsciously* making errors. So I started reviewing the actual neuropantograph records of individu-

al cases. And I found out you were making surgical errors *purposely* to throw off the pantograph—and getting away with it!" She pulled a sheaf of papers from the folder and shoved them into Doc's hands. "I couldn't believe it, but it was all there. Nobody but a fantastically skillful surgeon could ever have pulled it off, but you managed. You were quick enough and skillful enough to make deliberate errors, purposeful faulty operative judgments with the patient right under your hands, and get away with it time after time. You'd meet a crisis one way at one time and a totally different way another time, and then *create* the crisis in still another case so you could use a different method of bailing out. It was no wonder your machines weren't getting their surgical techniques programmed straight—you were playing games with them from the very beginning, deliberately building false judgments and judgmental conflicts right into your normal operating procedure. Very deadly games, I might add. You took some fantastic risks and you were just incredibly lucky time after time, but you got away with it, and you figured that nobody would ever take the time to go back and try to reconstruct what you'd been doing all this time. Well, on that one you were wrong. As you say, it's all right there on the record—the whole fantastic story."

For a long moment Doc leafed through the bundle of papers. Finally he set them back on the desk. "Well," he said softly, "it looks as if you've been pretty thorough."

"I've been thorough, all right," Katie said. "It's taken me weeks to put it all together, but it's all here. This data shows that you've been systematically sabotaging your part of the pantograph program for months, probably for years. I don't know *how* long, just yet, I haven't gone back that far, but I will if I have to."

Doc shook his head. Walking over to the office windows, he stared down in silence at the darkening city. "Don't waste any more time digging," he said finally.

"It's been six years, maybe seven—almost since the beginning of the program. I've hated this robot-training program right from the start. At first I fought it in the open with everything I had, argued against it, wrote position papers, supported legal actions, sat through so many committee meetings it makes me sick to think about it; and then one day it dawned on me that not one person in all Health Control was even listening. They were going to jam that program through no matter what anybody thought about it. I wasn't even given a choice about participating in it; I was assigned. So I decided then that there was more than one way to resist it. You could assign me to a pantograph program, but you couldn't make it work out right—and I could make it work out wrong."

"John, I didn't assign you. Health Control assigned you, the orders came right from the top. I just work here. My job is to administer their robot-training program and get it working, along with a thousand other jobs I have to do around this hospital at the same time. Maybe I don't like the robot-training program all that much myself. You hate it because you don't believe a robot operator can ever be programmed thoroughly enough to substitute for the critical judgment and skill of a human surgeon, even using the neuropantograph. Well, I'm not so sure that I think so either, but I've got no choice but to try. I'm convinced that at least part of the program can work. We *know* the robot operators can handle relatively simple surgery, and that one single surgeon could effectively monitor a dozen appendectomies at the same time. But for really complex surgery we need expert input and full cooperation."

"You could train more surgeons," Doc said.

"That's no answer. You know how hard it is to recruit new medical students, and it's getting worse every year. Health Control knows that too. We have to find some way that fewer doctors can supervise more work.

It's the only possible solution, and the robot-training program is absolutely essential to it."

"But you can't make robots do research. Health Control's research programs are all going down the tube too. There hasn't been a really major medical breakthrough in the last twenty years. Thousands of incompleting research programs have just stopped dead. That's another thing that's wrong with Health Control's program."

"Well, I can't touch that part," Katie said bitterly. "That's got to be someone else's headache. I've got trouble enough with the robot-training program here at Hospital Number Seven. And the Health Control people have been crowding me. Every week I have a Health Control supervisor down here checking progress, and they're getting very tense; the program isn't moving fast enough. Last week I spent a whole day on the carpet with the Secretary of Health Control himself. He wanted to know why we were six months behind our projected goals, and I couldn't tell him—without landing Dr. John Long in a pile of trouble. As it is, I can't bluff for you much longer. I'm going to have to pinpoint my trouble areas in so many words, and that could mean you'd be facing a full-blown Health Control investigation."

Doc shrugged. "So what can they do? I haven't broken any laws in your program. The worst they could do would be to give me a bad mark on my promotion record."

"John, you just don't know what they could do! With this data they could prove malpractice, criminal negligence, grossly unethical medical practices. They could revoke your license, strip you of all your medical credentials, block you from working in any hospital or clinic anywhere in the country." She hesitated, looking up at him. "And that might not be all. When Health Control decides to go after somebody, they dig in deep. They might not stop with your hospital work, they might look at everything you do—where you spend your time, who

you associate with, where your phone calls come from, what taxi trips you take, everything. If a man should happen to have something to hide, he could find himself in real trouble."

Doc looked up sharply. "Just what do you mean, something to hide?"

Katie spread her hands. "All I know is the rumors I hear," she said. "If nothing else, you're a dissident, and Health Control wants dissidents under control. In particular they want control over the key men, the professional leaders, the top experts in their fields—like you, for instance. If they catch men like that moonlighting, they're inclined to make public examples of them."

"So now I'm moonlighting?"

"I don't know. Are you?"

"If I were I sure wouldn't tell *you* about it."

"I might be the safest person you could tell," Katie said quietly. "I can tell you one thing, though. If you are, you're leaving a trail. And if Health Control wants to pick it up, sooner or later they will. There's no way to cover your tracks completely, they can always find *something*."

There was a long silence in the room. After a moment Katie joined Doc at the window. The sky was almost dark now and the city lights, normally dazzling, were muted by a light powdering of snow that had been falling. "You've got a great view here," Doc said softly.

"One of the perquisites of my job," Katie said. "With your wits and skill you could have one too. You could be Chief of Surgery in this place in another few years. And then, if you still hated the system so much, you'd be in a position to get things changed legally, from the top down."

"I don't know," Doc said. "In a few more years there may not be much left to salvage."

"You don't really believe that, John."

"Maybe not—but then maybe I do. The thing that

started out a stream has turned into a flood. The Heinz-Lafferty formula could have been modified to be workable, if they'd only taken enough time to approach it slowly. But they didn't, and now it's going more and more wrong every year. Your robot-training program won't save it; that's just a drop in a leaky bucket. And you can't see the flood coming because you're so solidly on the government's side."

"Could you believe that I might also be on your side?" Katie said. "I don't want to fight you. More than anything, I'm afraid for you. There's been too much interest in you and your work here. Health Control has been asking too many questions about you. And there are far too many rumors. I'm afraid you're walking into grave trouble and don't even know you're being watched."

Doc gazed at the woman for a long moment. Then he took a deep breath. "Okay, maybe you *are* on my side. And maybe you're right that I'm walking into trouble without knowing it. I appreciate the warning. But that's nothing compared to the kind of trouble you and your Health Control bosses could be walking into right here in this hospital."

Katie looked up. "What kind of trouble?"

"Perfectly legitimate, necessary medical work that gets out of hand. You're barely able to limp along and handle the patients that you've got coming in here during normal times. What would you do if a real medical disaster struck?"

For a moment a shadow crossed Katie Durham's face. Then she said, "Aren't you maybe borrowing trouble, John?"

"Not exactly. How many cases of meningitis has the hospital admitted in the course of the last week?"

"Far too many, I admit. We've had to convert three whole wards for isolation care. But that's not what you could call a disaster."

"Then why does the computer have a security lid on the meningitis data?"

Katie gave him an odd look. "That's just temporary until we can establish a baseline for analysis. Right now our people are breaking down the data we have, plotting incidence curves, comparing case histories to find common denominators—the works. Until that's finished we try to cut off any extraneous data searches. Look, I won't say we're not worried. This is a new strain of meningitis, we aren't even sure what's causing it, and cases have been increasing sharply. We don't know yet whether it's really an epidemic pattern, or just a chance clustering of cases that we're seeing. But whatever it is, Viricidin seems to stop it if we get treatment started early, and the lab has an immune globulin to protect people who've been exposed. It certainly isn't out of control. In fact, it wouldn't be any strain at all except that it's turning up right on the heels of this Shanghai flu epidemic."

Something clicked in Doc's mind. "My God," he said softly. "Shanghai flu."

"Well, yes. All our outpatient clinics have been loaded down treating that for the last six weeks."

"Treating all the cases that come in, you mean," Doc said. "As for the thousands that didn't come in—" He broke off, pulled a note pad from his pocket and scribbled down a name. "Katie, check something out for me. See if anyone named Hardy was admitted here last night or this morning. An infectious case, isolation ward."

Katie Durham looked at the name, then picked up the telephone and spoke into it for a moment. She waited, impatiently tapping her fingers on the desk. Presently the computer print-out beside the telephone began clicking. She picked up the print-out tape, frowning. "Is that *all* you have on it?" she said into the phone. "Nothing more? And this was at six A.M.? No . . . no thanks, that's all I need right now."

She set the phone down very slowly and turned to face Doc. "This Hardy family," she said. "They brought a boy to the hospital, early this morning. But he wasn't admitted. He was dead on arrival."

VI

The fact that he had been half-expecting it all day did not lessen the impact. Doc picked up the computer print-out tape, stared at it for a moment, and shook his head with a sigh. "As fast as that," he said bitterly. "I was afraid of it. What about an autopsy?"

"The father refused permission. Lab did take a throat culture and blood studies, though, and a spinal tap. They supported the history—a viral meningitis. There were traces of Viricidin in his bloodstream, too; he'd been treated by somebody, probably just not soon enough."

"And what about the rest of the family?" Doc asked.

"He was brought in by the father and a younger boy. They were obviously Naturists, and they refused examinations."

Doc winced. "They'll be back," he said, "probably just like the boy. Katie, something's going on here that's very bad, and I don't think you and your Health Control people here are even beginning to grasp it."

"But we know there's a bad infection on the move. We're treating it, and I told you we've got the computers working on the epidemic problems."

"You mean you've started off on a big, sprawling, time-consuming analytic study that's going to take six weeks or more to complete, and I don't think you've got six weeks. If what I suspect is true, this hospital and the whole damned city could be buried in bodies in six weeks."

"What do you think is happening?"

Doc sighed. "I'm not sure, but I think you've got to find out in one whale of a rush. Look, I was the one that saw that Hardy boy last night in his home. Never mind what I was doing there, I saw him. He was already mortally ill, the full-blown picture of meningitis, but he'd only had those symptoms for forty-eight hours. Before that he'd been just mildly ill for about two weeks—with the Shanghai flu. Not even a bad case, just a mild sore throat, headache, muscle aches, and those symptoms were all getting better spontaneously. Then whammo! A wildfire meningitis, and he's dead in the course of two days in spite of the treatment I started. Meanwhile, the father and the brother both have had Shanghai flu and have early meningitis symptoms right now, for which they're refusing examination or treatment."

Katie Durham stared at him in confusion. "But John, they're Naturists. It's perfectly consistent that they'd refuse treatment."

"Especially for something mild, right? Like the Shanghai flu. Well, that's exactly the point. Suppose this mild flu isn't just a mild flu. Suppose the virus, once it gets well entrenched, can attack the spine and cause a deadly meningitis. But these people are bypassing early treatment because it just seems like a mild flu. Naturists or whatever, they're trying to 'ride it out,' to use an old Health Control term. And while they ride it out, without knowing there's a bomb waiting to go off later, they're also infecting everybody they come in contact with—and by the time they and the ones they infect decide they can't ride it out any longer, it may be too late to di-

fuse the bomb. Oh, your regular clinic patients are all right. The ones that are eligible come in to the clinic for every snuffle, right? When they get the Shanghai flu, in they come and you slap it down with Viricidin and it stops right there. And you've been treating thousands of Shanghai flu cases these past weeks, right? *But what about the ones that aren't eligible?*"

Katie sat down at her desk, frowning. "Yes, I'm beginning to see what you mean. You're thinking—"

"I'm thinking that this city is full of people—not just the Naturists, but thousands upon thousands of common, ordinary, everyday people—who are going to try to ride out a mild case of Shanghai flu just the way they'd ride out a common cold, tens of thousands of people like that who can't qualify for Health Control care, people who wouldn't dream of applying for Health Control care for a simple case of flu—considering the eligibility requirements—until it's too late."

"And you're contending that this meningitis could be a late complication of this particular strain of flu."

"Right. And this Shanghai flu epidemic hasn't even begun to crest yet, we haven't begun to see the cases we're going to see when it really gets moving in the population."

Katie shook her head. "But, John, this is all pure guesswork. Sure, there's a flu epidemic moving in, and there's also a nasty viral meningitis that's begun turning up. That doesn't mean the two are related."

"But suppose they were."

"If they were, it could be a disaster. I'm not sure *what* it might mean, but you don't have a shred of evidence."

"That's right, I don't," Doc said. "But maybe you do, in the hospital records, and if the two *are* related, you've got to find it out. You've got to forget this slow, nit-picking computer study you've gotten started and home in on the one critical question you need an answer to right now: how many of your meningitis patients had

untreated Shanghai flu to start with, and how many of the flu patients you treated came down with the meningitis anyway. Would that take so long to track down?"

Katie Durham bit her lip thoughtfully. "Twenty-four hours, maybe. Maybe less." She stared at him for a long moment, then picked up her phone with an air of decision. "Will you see if Tim Lerner in the data bank can come up here, Mary? Right now, if possible, it's urgent."

They waited in silence, Doc lost in thought, Katie closing her eyes and rubbing her forehead wearily. Only a few moments later the secretary ushered in a tall, thin young man in a white lab coat and horn-rimmed glasses. "Dr. Durham?"

"Come in, Tim. Dr. Lerner, this is Dr. John Long, surgical staff. You've probably never met. John, Tim is our Chief Records Analyst and heads up the Department of Statistics. Now, then. On this meningitis study you've got started, Tim, we need some preliminary data very urgently." Carefully, she began outlining the problem, the question of relationship between flu victims and the meningitis cases admitted to the hospital. Lerner pulled out a pipe, filled it and lit it as he listened. When she finished he said, "When do you need this?"

"The sooner the better. Tomorrow morning at the latest."

Lerner whistled. "You know that this will all show up anyway when the general study is finished."

"That's far too slow. Set the rest of it aside and get this going fast. Commandeer all the computer time you need. I'll sign the priority. We want a search on every viral meningitis case diagnosed either in the outpatient clinics or in the hospital in the past six weeks, with a tight résumé of follow-up—what happened to each one of them. Even more important, search their records for any history of general influenza symptoms within two weeks prior to onset of meningeal symptoms. Never

mind the lab data, we'll correlate that later. But tabulate old patients and new patients separately—we need hard figures on how many meningitis victims might have delayed clinic or hospital visits on account of ineligibility. Is that clear?"

"You mean you want separate figures for former patients and never-treated patients?" Lerner jotted notes on a pad. "Fine, we can do it. I'm not sure we can vouch for statistical significance on this kind of run, but with any luck we can get you some sort of a picture."

"That's what we need right now—a preliminary picture. We can pick up details later. But put this through tonight, Tim. It could be critically important."

When Dr. Lerner had left, tapping his note pad thoughtfully, Katie turned back to Doc. "Okay, now we'll see. Personally, I think you're way out in left field, and this little canter is going to cost the hospital a small fortune in computer time, but we'll see. Meanwhile, we still haven't resolved the small problem of Dr. John Long and his part in the robot-training program."

"I know," Doc said.

"So what answer can you give me?"

"I just don't know."

"Well, obviously I can't keep you in the program any longer unless you're willing to cooperate. And if I can't keep you on it, I'm going to have to explain why to Health Control, and they're going to start to probe."

"Can you give me twelve hours to answer?"

"Do you really need twelve hours?"

"I've got to think it through. I'm not sure what I can do. Some time would be a help."

"Then take your twelve hours. Check with me in the morning. I should have data on this other thing by then; you can give me your answer then too. And, John, for God's sake don't play games with me anymore. Make it the right answer this time."

Doc paused at the office door, turned back to her with a smile. "For you, Katie, I'll try. But if I can't, it won't be your fault. I won't have anybody to blame but myself."

VII

Back in his own office, Doc turned off the lights, leaned back wearily in his chair and clasped his hands behind his head. On his way from Katie's office he had stopped on the surgical floors, intending to make evening rounds on his morning cases and the patients still hospitalized from surgery earlier in the week. But after seeing Mabel Turner and one other, he had given it up as a bad job and come back to his office, counting on the resident surgeons to flag him in the event of any trouble. His mind was far too unsettled to concentrate on routine; there were far more pressing decisions to make than what to do about a post-operative fever.

Now, in the quiet office he thought once again about his confrontation with Katie Durham. Of course, it had been sure to come sooner or later. His methods of obstructing the robot-training program had not always been the most subtle, and he had known that Katie Durham was no dunce. True, he had often enough mulled over excuses he might use when the time came, innocent explanations to account for the failures and missteps, one by one. But when the confrontation finally came,

such arguments had obviously been pointless. Katie had done her homework too well; when she had finally faced him, she had an airtight case. He could have delayed and stalled and challenged her figures and insisted on having other pantograph analysts go over her data, but it would only have gained him another few days at best, as well as infuriating Katie at the same time, and there was nothing to be gained by that. Faced with it cold, there had been nothing he could do but accede to her accusations and hope that she might somehow begin to comprehend, maybe even understand, the depth and bitterness of his opposition to the robot-training program and all that it represented in the government's Health Control program.

And in a way, she had surprised him. There had been no mistaking her tone and attitude. She had dreaded the confrontation as much as he had, and she clearly had sympathy, even support, for his feelings. But it was also clear the official position she had to take. Like it or not, she would surely blow the whistle on him if he continued to try to sabotage the program. There would be no more games, no more sabotage. He could cooperate, or he could quit the program. It was as simple as that.

And as complicated. Because he couldn't just quit and walk away free to more ordinary hospital duties, that was clear. To refuse to cooperate was to take things out of Katie's hands. There would be a Health Control investigation to probe what he had been doing to the training program and why. At best Katie might let him continue his own surgical work at the hospital until Health Control was through with him. Or she might ground him altogether pending a Health Control judgment, perhaps even level civil or even criminal charges against him. But whatever she did, it appeared that a Health Control probe would not stop with just his hospital work—and that, above all, had jarred him. Maybe Katie had been bluffing about an in-depth probe of his

private life, his associations, his illegal practice, but somehow he didn't think so. And if she *wasn't* bluffing, then his whole career as a legally licensed physician was in jeopardy. A full-blown Health Control probe could ruin him—and expose everybody he was associated with to scrutiny.

Of course, he did have one other alternative. He could resign from his hospital post completely, give up legal medical practice altogether, and go underground. Plenty of doctors had done just that, and many that Doc knew personally were glad they had taken that route, claiming that anything was better than willingly participating in the hated Health Control program. But for his part, Doc had never been convinced of that. Necessary as it might be, underground medicine at its best was poor medicine, a desperately limited stop-gap measure that could only be justified if there were some hope that it might someday help bring changes in the rigid Health Control system. The underground doctor was working with both hands tied, placing every patient he saw in jeopardy. Certainly it was no long-term solution to the problem of providing medical care for the nation. The only *good* solution would be a top-to-bottom revision of the way Heinz-Lafferty formulas were applied, a re-thinking of the whole government medical program. As it was, where the Heinz-Lafferty formulas failed to meet the medical needs of the people, the peoples' needs were being twisted to fit the formula, as the government tried desperately to force a vastly imperfect system into perfect function. And the government was stubborn; any revision in the program, any shift of policy whatever, was going to have to be forced upon it, and even then change could only be accomplished one tiny step at a time. Any such changes, however tiny, could only come from doctors working within the system, not from doctors working outside it in totally illegal medical activities.

It was for this reason that Doc knew he couldn't go underground completely. He could never hope to force any change if he quit his hospital post. What he could accomplish working within the system was something else again. Maybe nothing, all by himself; he could beat his head on the wall forever, to no avail. But if one with Katie's power in the system would join him, the result could be different. And if a crisis were to arise, a desperate situation that Health Control could not cope with under the present system. . . .

He sat there, and suddenly realized that his heart was pounding. He stood up, poured some reheated coffee, then sat back again, sipping it thoughtfully. Throughout history, epidemic illnesses had triggered medical crises. For centuries men had had no defense against such scourges as plague, syphilis, rubella, smallpox. Then immunizations were devised, antibiotics made treatment possible. In recent decades the discovery of potent viral antibiotics had even allowed medicine to contain and stop viral infections among those who had not been immunized. And this was fine—so long as the whole population had medical care available to it. But under the Heinz-Lafferty formula, there were multitudes of people who were purposefully avoiding medical treatment as long as possible. What would happen if a potentially fatal virus infection were spreading across the country, an infection that seemed relatively harmless at first and did not reveal its true nature until the mild early symptoms had run their course and the virus was too well-entrenched in the victim's body to be quelled or effectively treated? Those who could qualify for Health Control care, those who had accepted sterilization as the legal prerequisite, would be safe as long as they came in for treatment when symptoms were mild. But what about the vast numbers who would try to ride out the early infection? With such an infection the hospitals might only have seen a tiny percentage of all the cases so far, and

among the population at large the infection could be a smouldering brush fire eating its way along the ground, ready to explode into a veritable firestorm when it finally reached a certain critical point. At first concealed, then erupting in fury.

Slowly Doc stood up and snapped a light on in the darkening office. Katie was right, of course; there wasn't any proof. Not yet. Tomorrow there might be some answers—and tomorrow he would have to answer Katie, too, tell her where exactly he stood. He sighed, feeling time crowding him on all sides. He needed time—to think, time to come up with a workable answer—and slowly, inexorably, time was running out.

It was enough to think about, but to top it off there was the nagging worry that had plagued him since the rooftop ambush of the night before—worry about Billy Gimp. His message box had still been empty when he returned to his office. Now he punched out Billy's home phone number on his computer console, waited impatiently for the relays to close, and blinked down at the same message he had seen twice before that day: THIS TELEPHONE IS TEMPORARILY OUT OF SERVICE IF YOU HAVE A QUESTION AN OPERATOR WILL COME ON THE LINE TO HELP YOU WHEN YOU HEAR THE—Doc cancelled in disgust. No word from Molly Barret, either, although it was almost six o'clock and she would not ordinarily leave the hospital without leaving a contact number for him. Just as he was about to have her paged, there was a rap on his door and Molly's head popped in. "Doc! Thank God you're back. They told me you were in conference with Dr. Durham."

Doc nodded. "Most of the afternoon."

"Nothing serious, I hope."

"Serious enough." He looked at the girl closely. "You haven't been aware of any snooping going on around you, have you?"

Molly frowned. "Not that I know of. Why?"

"Well, I can't explain right now. Later, when we have time." He took a deep breath. "Molly, what about Billy?"

"That's why I'm here," she said. "He called me about an hour ago. A very odd call."

"What do you mean?"

"Well, he didn't use the TV scan, and if I hadn't been sure it was his voice I wouldn't have believed it was Billy." She shook her head. "He sounded so *beaten*, somehow. He said he had to talk fast, he couldn't hang on, but to tell you he was nailed good, couldn't even try to contact you for the time being. I asked him what was the trouble and he said there wasn't any trouble, exactly, but that he was under close surveillance and couldn't try to reach you until he could figure out how to shake it. I . . . I told him to call you anyway, I thought you should talk to him direct, but he said he couldn't, or didn't care, or something. And that was all, he just hung up."

"He didn't say what kind of surveillance?"

"No . . . but Doc, I'm worried. He sounded very tense and shaky, not at all like himself. He said he was just shaken up by the arrest and hadn't had any sleep, but it all sounded so *wrong*."

Doc chewed his lip for a moment. "Well, we'll have to cancel the case for tonight obviously. That's no problem, but Billy is. I don't like to have to do it, but I think I'd better go find him."

"You mean go to his place? Doc, do you think that's wise? I mean, if he's really being watched—"

"That's a risk I've got to take, I'm afraid. If he's in trouble, I've got to try to help. He hasn't got anyone else to turn to. But don't worry, it won't be the first time I've run a risk in this dirty business."

"Then let me go with you."

"Not this time. It's possible that something could explode very suddenly, with me and Billy both nailed. The

farther you stay away from us right now, the better, as far as I can see."

"Then will you call me after you see him?"

Doc paused and looked at her. "You really *are* worried, aren't you?" he said.

"Well . . . yes." Molly looked flustered. "I mean, he's certainly been loyal, and, well, you get used to a person. And sometimes he surprises you. Look how he handled that anesthesia last night! You couldn't have done it better yourself. I know he sometimes makes you mad, he acts so dumb, but he really isn't. Sometimes I think you're too hard on him, you're always riding him."

"But he comes right back for more, you notice."

"But that doesn't mean he *likes* it."

"Well, I'm not so sure of *that*, either. But I can't very well ride him unless I can make contact with him. Yes, I'll call you when I know what's going on."

Molly went on her way, and Doc sat back in his chair again for a few moments, staring at the ceiling with his hands clasped behind his neck. Then, with an air of decision, he stood up, took hat and coat from the rack, and pushed the OUT switch on his call board control. Snapping off the office light, he headed quickly for the down elevators.

VIII

Outside the hospital it was snowing steadily and heavily, limiting visibility to a few dozen feet; passersby emerged from the gloom like specters and vanished again like flocculated shadows. Already the automatic street-warmers were hard at work, filling the streets with billows of clammy humid air, like the inside of a greenhouse on a sunny day, as the snow underfoot melted into rivulets in the gutters. The windy gusts of snow on Doc's face and the warm damp rising from the street created an unsettling contrast, as though neither of the conditions was to be fully believed. Doc pulled his hat down, rolled up his coat collar, and wrapped the wool muffler more tightly around his neck. It couldn't be better, he thought, if Billy's flat were really under close surveillance. Neither he nor anyone else could be identified at any distance greater than ten feet, and any attempt at photography would be completely aborted, as long as the snow continued.

He hailed a ground-cab just outside the Hospital, and gave the driver Billy's Lower City address. Then he settled back in the cab as the driver pulled out into traffic. There was a risk involved in the trip, Doc knew that perfectly well. If Billy were really under close surveillance, it might be virtually impossible to conceal Doc's visit from the multiplicity of sensing devices that could

be pressed into use. The falling snow might thwart camera-snooping, or even interfere with infra-red scopes, but audio pickups were a different matter. Modern parabolic microphones could pick up a whisper from a distance of three hundred yards, if necessary, when there was no barrier impeding the sound waves, and a laser beam bounced off a closed window could easily sense the vibrations caused by low voices within the room. Other, even more sophisticated, devices were available to the police. And as for identification of any voices picked up, anyone who had ever given testimony to a computer-court—and who hadn't?—automatically had a voice print recorded and registered with both the FBI and the Department of Health Control. Even a brief fragment of snooped conversation could be enough to permit positive identification, enough to connect Doc with Billy Gimp in any tribunal in the land.

Yet oddly enough, Doc found that at this particular moment in space and time, he simply didn't care. For years he had played the underground medicine game with painstaking attention to the unwritten rules, always wary, always taking the most elaborate precautions to avoid apprehension, to cover his tracks, to be on guard against any possible surveillance. But now, to his own surprise, he felt strangely indifferent about his own security and safety. With the events of the past twenty-four hours, the shock of Billy's arrest, and the finality of his own confrontation with Katie Durham, something seemed to have changed. It was as though his own fate were already decided, out of his hands despite anything he might do. It was Billy that needed help and protection now, not Doc, and if helping Billy meant throwing caution to the winds, then caution would have to be thrown to the winds—and strangely, the prospect suddenly did not seem the least alarming.

The cab threaded its way down from the Upper City, down ramps and causeways to the ever-narrower streets

below. At the same time, it made its way northward, the driver moving swiftly from light to light. Doc sat back, curbing his impatience as mile upon mile of the Lower City passed by. Then abruptly the cab slowed, poked along a dark and snow-filled street, then turned a corner. "This is about it, I think," the driver said. "Okay?"

Doc peered out the window of the cab. "Is this Four Hundred and Twenty-third?"

"It's a block north, but this is as close as I can get. Some of these streets are falling in."

"Okay." Doc paid the cabbie and a moment later was on the curb as the cab swished away in the snow. He pulled his collar up and stared around at the gloom. There were no street-warmers here in the Lower City, and where the snow had filtered down it now lay in foot-deep piles, already grimy from the city's air. With the cab gone, Doc walked a block north to 423rd, turned down the dimly lit street, and walked briskly east. He had been to Billy's place only once, years before, when he had been checking him out as a prospective bladerunner. Now he remembered only the direction as he passed block after block of eight-story tenement rowhouses, their façades black in the darkness, their stoops and curbs piled high with refuse. Six blocks along he made a turn, recognizing the small corner grocery that marked Billy's street. A moment later he stopped as the small signal-sensor in his pocket bell-boy began emitting a slow, steady succession of warning clicks. Doc frowned. From somewhere nearby in this heap of slum buildings, *something* was transmitting a steady stream of short-wave signals. The clicks continued as he walked on, found the right building, and walked up the cluttered steps to the entry hall.

Once inside, Doc paused. None of the buzzers bore names, and the old TV monitor screen was smashed as though someone had put a brick through it. Doc pushed the buzzer he thought was the right one. Then, when no

voice signal came, he trudged up six flights of stairs and thumped on a heavy door.

Something stirred inside. A muffled voice said, "Who's there?"

"Me," Doc said. "Look under the door." He tore a page from his pocket notebook, scribbled on it, and slipped it halfway under the door. It vanished, and a few seconds later he heard bars and chains being released. The door opened a crack and he saw Billy's eye peering out.

"Jeez," Billy said, opening the door. "You had me worried. I wasn't expecting company." As Doc started to answer, Billy held up a warning finger. "Don't talk. This place may be wired up for voice prints. Let me get my coat, I know a place we can go."

Moments later Billy emerged, bundled up to the ears in his corduroy coat and a thick wool muffler. Silently he led Doc down the stairs to the street again. It seemed colder than before, and a cutting wind had come up, drifting snow and sending clouds of it whirling down the dark street ahead of them. Doc walked briskly, with Billy hobbling along beside him. Two blocks up the street they came to a dingy basement restaurant with a flickering neon beer sign in the window. The place was completely deserted except for a waitress reading a love novel behind the counter. Billy led Doc to a table near the back in a dimly lit corner. There he sat down and loosened his muffler, his teeth literally chattering even though the place was warm and steamy. "Doc, you shouldn't have come. I don't know who may be watching me . . . didn't Molly tell you?"

"She told me you were under some kind of surveillance, yes. But what did you expect me to do? Sit around twiddling my thumbs until you got ready to tell me what's going on? I've got work to do, patients to see —" Doc broke off, looking around the grimy restaurant. "Can we get a privacy screen?"

Billy shook his head. "No such thing down here. And

if they did have one, we couldn't use it anyway. We'd have the cops in here inside of ten minutes."

Doc looked closely at Billy. "Why? Just what *is* going on?"

Billy rolled up his sleeve, revealing the transponder unit clamped to his wrist. "I picked up this little toy when they hauled me in last night."

"Oh, oh." Doc examined the device. "Isn't this one of those constant-signal transmitters?"

"Right."

"An electronic shadowing device."

"Right again. There's a grid pattern of receivers built into the telephone lines and laser conduits all over the city. Any place I go, the grid pattern reports my coordinates, minute by minute, as I move from one grid to the next. There's no audio or visual pickup, but there doesn't need to be. Any change from a perfectly smooth pickup pattern on the grid, and an alert goes out to the nearest precinct station, and they can have a helicopter on me in minutes. They can also retrace every place I go, *everyplace*, for court evidence later. They've got me boxed in tight; I can't make a *move* that they don't know about if they want to know about it."

"I know," Doc said glumly. "Legally it's considered equivalent to imprisonment. But I thought it had to be court-ordered and court-regulated. How did they manage to hang one on you?"

"Computer-court. They nailed me with a misdemeanor charge, illegal possession of surgical supplies. Then they had the court rigged so that I got hung with the transponder whether I accepted the computer-court guilty verdict or appealed it pending a jury trial. In fact, it seemed to me that what they *really* wanted was to get this transponder on me, one way or another, regardless of any particular charges. Well, they worked it, all right. This thing's on me legally, and the minute it stops signaling for any reason whatever, there'll be a squad car

or chopper homing in on the spot where the signal quit."

Doc frowned and looked more closely at the gadget. "What would happen if you just cut it off and then took a heli-cab to the other side of the city before they could close in?"

Billy shook his head. "I'm not *that* crazy. There's a mandatory five years for transponder-jumping, it's the equivalent of a jailbreak. Of course I might get away before they nailed me, but they'd get me sooner or later. And anyway, why should I take the risk? It sure wouldn't do *me* any good—I'd just have to go underground and stay there—and it wouldn't do you any good, either. You'd just have to get another bladerunner, you wouldn't dare have me around."

"Well, you're not much use dragging that thing around on your wrist, either," Doc said, "leaving a blazed trail every place you go."

"So what am I supposed to do about it?" Billy flared. "You act like *you've* got some kind of problem. Well, *I'm* the one with the problem."

"Okay, okay, neither one of us likes it," Doc said. "The question is what we can do about it. There must be *something*. Now quiet down and tell me everything that happened last night. Maybe we can think of something."

Billy told him everything, from the moment Doc's heli-cab had taken off from the rooftop until the moment he had appeared at Billy's door—the Health Control interrogation, the computer-court hearing, his release with the transponder, everything. He paused as the waitress came up to take their orders, soy steak for Doc, a bowl of soup for Billy, and then continued. "So with this thing on my wrist, there wasn't much I could do," he concluded. "I went home and holed up, slept awhile, and then worked up nerve enough to go out and use a phone. I didn't dare use my own—it *looked* like they'd pulled the audio-visual bug out of my room, but there

was no way I could be sure without a lot of testing devices that I don't have."

Doc scratched his chin. "Wouldn't be any problem to get help there. As a matter of fact—"

"Doc, what I don't see is why they were so eager to get this transponder on me in the first place. Have they been bothering you too?"

"In a way, yes. They're going after it differently, but I think it's me they're after in the long run. Just how they connect me with you I don't know—I'm not even sure they do—but as long as you've got that thing broadcasting on your wrist, we're both vulnerable. Somehow we've got to get it shut off without getting you into trouble."

"Fine. But how?"

"There's a computer man at the hospital owes me a favor," Doc said. "Jerry Kosinski. We fixed his kid's broken leg last year, remember?"

"Little guy with glasses? Yeah."

"He knows more about surveillance systems than anybody else I can think of. At least he could check out your room for you, and maybe do something about the transponder too. You go ahead and eat; I'll make a call from the corner."

A few moments later Doc was back. "Got him, and he'll meet us. Your room, as soon as he can get there. We'd better get along." He finished his steak, saw that Billy's soup was untouched. "What's the matter, you sick?"

"Just not hungry," Billy said, pushing the soup away. "Let's get out of here."

Back in his room Billy emptied a chair for Doc to sit down in and made a pot of coffee. They waited in silence as an hour passed, then another. Doc dozed, his head on his chest; Billy paced, pausing now and then to peer down at the street below through the steamy win-

dow. At last there was a rap on the door, and Billy let the little computer man in.

Jerry Kosinski nodded to Doc, shook hands with Billy, and set a small black valise on the floor. "Sorry to take so long," he said. "The snow has slowed traffic all over." He wiped steam from his glasses and peered around the room. "So you're having trouble with bugs, eh?"

"You might say so," Doc said. "We're not sure about the room, but there's no question about the bracelet the boy's wearing."

"Well, let's take the room first. You said there was a matchstick receiver installed here two days ago that's gone now, right? Where was it?"

Billy showed him the tiny hole in the floorboard where the bug had been. With flashlight in hand the little man went over the whole room, whistling through his teeth as he peered and probed. One by one he pulled testing instruments from the valise, completely absorbed in his task. He paid special attention to the telephone and computer console, at one point making an outside call and waiting for a call-back. Finally he sighed and looked at Billy. "If there's anything in this room that's bugged right now, I can't spot it. I think you're clean."

Billy took a deep breath and sat down on the bed. "That's good news," he said finally. "Now if there were just some way to shake this bracelet—"

"Let's have a look," Kosinski said. He studied the transponder closely, took some instruments from the valise, fiddled with dials. "Well, it's a standard police transponder," he said at length. "You don't dare try to take it off, or tamper with it, but we can certainly spoof it."

"Spoof it?"

"Fix it so it doesn't tell them anything." The engineer dug in his bag again and laid two devices out on the table. One looked almost identical to Billy's transponder, the other like a woman's hairnet made of fine silvery

wire. "The idea is to set up a phony signal that they can't distinguish from the real one, and then block the real signal so they think the phony signal is valid. This gadget here is just another transmitter like the one on your wrist. We'll tune it to transmit exactly the same signal as your bracelet. Once I start it, we'll just lay it on your dresser here and leave it. It'll keep broadcasting for at least two months on the power pack that's attached. Meanwhile, we'll muffle your bracelet with this wire net gadget here. It's very similar to the old-fashioned Faraday cages they used to use for privacy screens, but it's much smaller. It does the same thing, though—it keeps signals from going through. Once it's on, you can go any place you want and they can't follow you. Now let's get this set."

For several minutes Kosinski worked with the phony transponder, adjusting it, checking a tuning dial, then readjusting it. "Now hold out your wrist." He made a final adjustment and pressed a stud on the phony transponder. Quickly, then, he wrapped the wire mesh around Billy's wrist transponder and anchored it in place with a couple of laces. "There," he said. "You'll have to be sure that stays on, but as long as it does, the police grid will be picking up the signal from the phony transmitter, not from yours."

Billy looked at the wrapped bracelet and then at Kosinski. "You mean that's all there is to it? The phony is working now?"

"That's right."

"And if I leave it on the dresser there I can go anywhere I want and they'll think I'm right here?"

"Right. If you're smart, you'll take the phony with you when you go out to eat and things like that, so they'll see *some* activity, but leave it here when you don't want to be followed. If you want to switch back for some reason, just unwrap the muffler and then unlock the stud on the phony transmitter—but then don't

try to activate the phony again without help. Just give me a call."

Billy laughed. "Fat chance of that. Doc, we're back in business."

Doc smiled. "Thanks to Jerry."

"Don't fret, Doc. Junior may break another leg." The little engineer repacked his valise and climbed into his coat. "Any problems, just let me know. I'd better get back now before I'm snowed in."

When the engineer had left, Billy lay back on the bed. "Okay, Doc. Now what?"

"For the moment, nothing," Doc said. "While you've been having your troubles, I've been having mine, and I think we'd better lie low for a day or two. You get your phone reconnected, and stand by. I'll contact you when I need you."

"Suits me," Billy said. "With this headache I feel like I could sleep for a week."

Doc looked up sharply. "I thought you looked lousy. How long have you had a headache?"

"Since this morning."

"Anything else?"

"I've been chilly all day. A little sore throat, and I kind of ache all over. That's about all."

"All right, let's check your temperature." Doc pulled a small leather pack from his pocket.

"Aw, come on, I'm just catching cold, that's all."

"Maybe and maybe not. After what I've seen going on, I'm not taking any chances." He stuck a thermometer in Billy's mouth. A moment later he checked it and swore aloud.

"What is it?"

"A hundred and three," Doc said disgustedly. "Why didn't you say you were getting sick?" He pulled a sealed culture tube from his kit, swabbed Billy's throat, and sealed the swab back in the tube. Next he withdrew a syringe and needle and injected some medicine into

Billy's shoulder. "That Viricidin, just in case this is the Shanghai flu you're coming down with. I'm also leaving some capsules here. Take two of them now and two morning and evening until they're gone—got that? And if that headache isn't gone by tomorrow evening, don't wait for me to call, you call me . . . okay?"

Billy nodded dully, shivering in the overheated room. At Doc's urging, he repeated the medication instructions. "Good," Doc said finally. "Take some aspirin too, and then get to bed and stay there. I'll keep in touch."

Moments later Doc was back down on the street. He walked through drifting snow to an Upper City arterial, clutching his coat collar to his throat, and finally caught a ground-cab. He sat back wearily, suddenly and overwhelmingly sleepy. It had been a long and disquieting day, and he could not shake the feeling that he would need energy to spare when he reached the Hospital next morning.

IX

His code number was flashing intermittently on the paging system when he walked into the Hospital just before seven next morning, and a light blinking on his mail box indicated a message was there. In the box he found copies of two new patient admission slips bearing his name as attending physician—one for a Will Hardy, aged forty-eight, the other for Robert Hardy, aged twelve. Ac-

According to the slips, father and son had arrived at the hospital by ambulance shortly after midnight and had been admitted to an isolation ward by the emergency room intern who had first seen them. In each case the admitting diagnosis was acute meningitis.

So the Hardys *had* come back, after all. Doc tucked the notices in his pocket, and made his way across the hospital lobby to the doctor's lounge. Here he picked up a telephone to answer his page, sipping coffee and munching a doughnut as he dialed his code. Two calls were in for him, one from 14 West, the isolation ward where the Hardys were admitted, and one from Katie Durham. He rang the isolation ward first. The desk nurse there, dressed in isolation gown and mask, looked relieved when she saw him on the screen. "Did you get slips on your two new patients, Doctor? They both look very sick, and we'll need some orders on them."

"Okay, I'll be up right away," Doc said. He rang off, started to ring Katie Durham's office, and then put the phone down. He was early, and Katie could wait. Finishing his coffee, he left the lounge and jumped on a west-wing jitney. Ten minutes later he was slipping into an isolation gown and mask in the dressing room of 14 West.

"I'm glad you got here," the nurse was saying as she led him down the corridor to a six-bed wardroom at the end. "The intern has gotten routine studies started and ordered up IV's, but we need continuation orders for the Viricidin, and something for pain and fever."

"Any sign of convulsions?" Doc asked.

"Not yet, but if they go like some of the others, that could begin any time, and then the ones we've had have just gone right on out."

"Well, we may be in time." He stepped into the room and saw the two Hardys in beds at the far side. An intern was adjusting an IV on the older man. Doc crossed the room, frowning. Will Hardy was obviously far sicker

than when Doc had last seen him thirty-six hours before, but he managed a feeble wave of his hand. "Hi, Doc. I should have done what you said. This neck's really getting me now."

"How's the boy?" Doc said, looking across at the sleeping figure in the other bed.

"Better than me," Hardy said. "His stiff neck didn't start until after dinner last night."

"Well, let's take a look at you." Carefully, painstakingly, Doc examined the older man, checking heart and lungs, extremities, neurological signs. Then he took the chart from the intern, nodded in satisfaction. "Okay, things seem to be under control here. You'll both need continuous IV's, and we're going to keep you loaded up with medicines. You're going to have to be here awhile, I'm afraid, and you're to do everything the nurse tells you—no nonsense whatever, understand?"

"Don't worry, I'll behave."

"You'd better. Now what about your wife?"

"I'm not sure. They kept her in the emergency room for some tests and shots, I think."

"Well, I'll check," Doc said. "She didn't get the Shanghai flu when the rest of you did; she may be all right with just immunizations. I'll check back with you tonight. Meanwhile get some rest."

Back at the nurse's desk Doc wrote examination notes on the charts, together with additional orders. "Keep a close eye on them," he told the nurse. "They should have come in two nights ago, but there may still be time."

"I hope so. Sometimes these Naturist people just don't use good sense."

"It isn't just the Naturists that are in trouble," Doc said. "You're going to have a floor full of sick people here before this is over, unless I miss my guess." He finished his notes and handed her the chart. "Page me if you need me," he said.

By eight o'clock the hospital was alive with early-morning activity, with elevators and jitneys full. Back in his street clothes, Doc made his way up to Katie Durham's office. In the reception room her secretary looked up from the two telephones she was handling simultaneously and sighed. "There you are! Dr. Durham is about climbing the walls."

"What's the trouble?"

"They don't tell *me* the trouble, but it's like a convention in there, computer people in and out all night. They called me in at five o'clock to handle the phone, and I don't think Dr. Durham got home at all."

Katie's head appeared at the door. "Will you try paging John Long again, urgent? Oh, he's here." She looked weary and shaken, and there was no mistaking her relief at Doc's presence. "John, did you ever call it! You have no idea. Come on in, we're finally making some sense out of these figures."

Doc followed her into her office, then stopped dead. The place was in chaos. Two large tables in the middle of the room were heaped high with papers, with computer print-outs cascading to the floor on all sides. Dr. Lerner and two other people from Records were huddled over one pile of papers, speaking into small microphones, and a technician was punching colored pins into a city map draped the length of one wall. Across the room by the window, separate from all the activity, was a short, balding man with wire-rim glasses and a small mustache. "John, you must have met Mason Turnbull, Chief of the Eastern Division of the Department of Health Control?"

"Oh, we've met," Doc said. "He ran that four-day conference on the robot-training program last year, remember? Look, if I'm interrupting something—"

"Not at all," Turnbull said. "On the contrary, we've been waiting for you for some time."

Doc's face darkened, and he turned to Katie. "Look,

I had an appointment with *you* this morning. What's he doing here?"

"I called him at two o'clock A.M., that's what he's doing here. John, we've got *trouble* on our hands, we aren't worrying about the robot-training program right now."

"Well, I warn you, Katie, I've been thinking about it and I won't even discuss my work with this man without a lawyer on hand."

"That won't be necessary this morning," Turnbull said. "Not that there isn't plenty to discuss. We've been watching your program very closely, Dr. Long, and we're not pleased with what we see."

"Then you just don't comprehend the problems involved," Doc said.

"Perhaps not, but other surgeons seem to be solving these problems splendidly. We're getting very curious to know why you can't. However, that's not the issue just now. Dr. Durham called me last night with some alarming information on these meningitis cases, and I understand you're involved."

"He put us onto it," Katie said, "and it was none too soon, either." She took a thick sheaf of papers from one of the tables. "We knew we'd had a sharp surge of admissions of patients with viral meningitis in the past two or three weeks, and of course had the usual epidemiological studies started—it was obviously highly virulent, with a high mortality rate. We also have had a staggering increase in outpatients coming in for treatment for the Shanghai flu. None of them very ill, but as you know, people who are qualified for Health Control care tend to come in for every snuffle. Well, Dr. Long suggested that the meningitis might be a late sequel of the Shanghai flu in people who had bypassed treatment for one reason or another, and that's what we set out to track down."

She sighed and tossed the papers on the table. "We only have preliminary figures at this point, but the pattern is already clear: the Shanghai flu and the meningitis are two stages in the same disease, and if the lab people succeed in isolating and identifying the agents, they're going to find the same virus involved in each stage. So far they haven't had any luck pinning it down."

"The Shanghai virus is elusive; we can confirm that," Mason Turnbull said, "and the flu it causes certainly seems mild—a low-grade fever, headache, sore muscles for a couple of days, nothing much more. Our lab people are convinced it's one of these cyclic mutant flu strains that turn up every few years, but nobody's actually isolated the virus yet. This one appeared in Shanghai about four months ago, and just hit over here in the last two months. Highly infectious, but not particularly hard on the victims, except for babies and older people. We do have immune serum now for protective vaccination, and the virus is sensitive to most of the antiviral antibiotics. Ordinarily something like this would pass through and burn itself out in a few weeks. But a virulent meningitis complication is something else altogether."

"It wouldn't be bad if everybody who got the initial flu were treated—or vaccinated ahead of time," Katie said. "The frightening thing is that *that's not happening*, according to our figures. The very mildness of the initial flu is a trap, because the symptoms clear up in a day or two, and people think it's all over until the trouble turns up some days later. I don't know why the time lag—maybe it takes that long for the virus to travel to the central nervous system and get entrenched in the meningeal membranes lining the brain and spinal cord—but once the meningitis starts it moves like lightning: raging fever, agonizing stiff neck, violent headache, then convulsions and death all in a matter of forty-eight hours

unless treatment is started in time. But there isn't any question that it's related to untreated Shanghai flu earlier. People who have treatment for the initial flu don't get it—we haven't turned up a single case. Neither do people who've gotten the flu shots early enough to prevent the flu. All the meningitis cases we've seen have been people who had the flu and rode it out without treatment."

"And the admissions curve?" the Health Control man said.

"You'll have to see it to believe it," Katie Durham said. "Forty-three new meningitis admissions in the last twenty-four hours alone, every single one of them with untreated Shanghai flu a week or so earlier. Thirty-eight cases the day before, thirty-two the day before that. Over a hundred new cases in three days in this Hospital alone, and no sign of it peaking out. Here's the graph for the last week—look it over and see what *you* think."

The Health Control man peered at the graph, grim-faced, with Doc looking over his shoulder. "The trouble is," Katie went on, "the really scary part doesn't show up on that graph. Of all the thousands of outpatients we've treated for the Shanghai flu in the last two months, in effect protecting them from the meningitis, ninety-nine point eight percent were patients who were *already qualified* for Health Control care anyway under the Eugenics Control laws—they'd already been through the sterilization procedure at some previous time, so that wasn't an impediment for them. Only two tenths of one percent—two people out of every thousand—had been alarmed enough about the Shanghai flu itself to submit to sterilization in order to obtain treatment."

"Well, what would you expect?" Doc exploded. "An apparently minor, two-day illness—people who are resisting the eugenics qualifications would hardly change their minds because of a mild case of flu! This is *exactly*

the kind of illness they'd try to ride out without treatment. But what about the other side of the coin? How many of the meningitis patients have been qualified for care?"

Katie Durham tossed the graphs down and looked up at the Health Control man. "Practically none," she said. "I could hardly believe it, but those are the figures—and that's why I called you at two in the morning. Nine out of ten are unqualified, and they're waiting to the bitter end before they come in for help. A good third are beyond hope by the time they get here; they're dead before we can even get treatment started. Lord knows how many just don't get here at all." She sat down at her desk and spread her hands hopelessly. "That's the pattern our figures show, Mr. Turnbull, and frankly, I'm terrified. The Eugenics Control laws are working, all right, altogether too well. People who won't submit to Health Control qualifications are trying to ride out an apparently minor illness that later turns out to be something quite different—when it's too late, of course. There are still some holes in our data, some unanswered questions. We don't really know yet how many of these untreated flu patients actually come down with the meningitis, maybe it's only a small percent, but if our preliminary projections are anywhere near accurate, this city could be knee deep in corpses within another few weeks."

There was a long silence in the room. Then Mason Turnbull cleared his throat. "Thirty percent," he said finally.

"Thirty percent what?"

"Thirty percent of the untreated flu patients will develop the meningitis," Turnbull said. "Those are the latest figures *we've* been able to come up with. And if you are alarmed by the implications, Dr. Durham, I can assure you that we are too. If the figure were five percent instead of thirty percent we would still have a dangerous

underground epidemic on our hands. At thirty percent, we're facing a perfectly appalling medical disaster, with virtually all the potential victims out of reach of legal medical care. And to be perfectly frank, the Department of Health Control has its back against the wall. We don't know what to do to stop it."

X

"I think," Mason Turnbull said, "that the time has come to lay cards on the table. The real reason I'm here right now is not because you called me last night, Dr. Durham; in point of fact, I've been expecting your call for several days now, and had planned to be here today anyway. Nor did I ask for Dr. Long to be here in order to pressure him on account of his robot-training fiasco. We certainly regard that as important, but not nearly as important as this critical problem that we're facing right now. I'm really here on an extremely confidential basis to ask Dr. Long for some rather extraordinary help. It's a kind of help that I can't legally ask for at all, but it's help that we very desperately need."

The computer team had departed with piles of paper in their hands, and the office was empty except for Turnbull, Katie and Doc. The little man from Health Control took a seat facing the two doctors, filled an enormous briar pipe and lit it. "First of all, Dr. Durham, let me confirm that your computer analysis of this meningitis situation is perfectly sound, and every bit as

frightening as you have indicated. It's not a local thing—your figures are very close to those from other east coast Hospitals, and things appear to be even worse in the west. In our offices we've been aware of the problem for about ten days now, and so far we can see no way—*no way*—that we can stop this thing in terms of any of our present Health Control programs." He spread his hands. "As you point out, it's a crisis that the Eugenics Control laws have actually created by encouraging unqualified people *not* to seek medical help for a minor illness. Yet the Eugenics Control programs provide us with no means whatsoever to fight the epidemic that's now developing."

"But there's always been a threat of an epidemic getting out of hand," Doc interposed. "You Health Control people have known that right from the start; you've just chosen to ignore it."

"That's not quite right," Turnbull said. "We just never anticipated anything on quite this scale, that's all. Minor epidemics we could handle. If anything, they fit right into the program, caused more people to get themselves qualified for care, and of course we've *always* had an escape valve for those who wouldn't . . ."

"Escape valve?"

"Underground medicine," the little man said. "The illegal medical practice that some eighty percent of all doctors, including yourself, Dr. Long, have been engaged in ever since the Eugenics Control laws were enacted. The kind of medical moonlighting that we have been continually denouncing and prosecuting all these years. Well, that's been necessary for public consumption. The truth is that from the very first the Department of Health Control has *deliberately permitted* medical moonlighting to evolve to whatever level it was needed for the very specific purpose of making the Eugenics Control program practicable at all."

Doc stared at the little man. "Did you say *permitted?*"

"That is what I said. Of course, I also said that this meeting is confidential, and if I were to be quoted outside this room, I would deny under oath that I made any such statement." Turnbull sighed and relighted his pipe. "Look, Doctor, Health Control has always been torn between the ideal and the practical. The Eugenics Control laws were aimed at certain long-term, idealized goals: control of a disastrous population spiral, the reduction of health care demands to a manageable level, and the long-term improvement in general health by weeding out certain health-destructive factors from the nation's gene pool. And already our studies show evidence of progress toward those goals. Last year saw the first *decline* in annual birthrate in the past forty years. Even with more people qualifying for Health Control care every year, the total demand for medical services—and the cost of providing them—has begun to level out after fifty straight years of increase. It's too early to see clear genetic gains just yet, but our medical actuaries are certain we're on the right track. In order to secure these gains, however, we've had to be practical. Hardly anybody really *likes* the sterilization requirement, even when they concede that it's necessary, and our control has been very fragile—we've been walking a knife-edge right from the first. We've *had* to have underground medicine as an escape valve, to provide emergency medical care to those who just wouldn't buy the sterilization. It's had to be completely illegal and subrosa. We've had to keep it under constant attack as far as the public was concerned, but we've had to have it to keep Eugenics Control afloat. It's been tricky going, a very difficult balancing act, but it's been *working*. It's been meeting our health care needs to a reasonable degree, and achieving our long-term goals at the same time. And under nor-

mal, ordinary circumstances there's no reason it shouldn't keep on working."

"Except that we don't have normal, ordinary circumstances anymore," Katie Durham said.

"Exactly," Turnbull said. "Two months ago this Shanghai flu turned up, and we suddenly found ourselves facing a completely unpredictable situation. Oh, we've had flu epidemics before, but never anything like this meningitis. The people who have been qualified for health care have had no problem. They've come in for treatment that both stops the flu and protects them from the meningitis, all at the same time. As soon as we started broadcasting warnings about the flu epidemic, those people flocked into the Hospitals and Clinics in droves. But there is a vast reservoir of people, as much as forty percent of the entire population, who had resisted Eugenics Control and have thus never qualified for health care. Of course some of these people—the Naturists, for example—resist *any* kind of health intervention. It's a religious thing with them, a matter of deep-seated conviction, and there's no way in the world we can reach them. They're going to wait until it's too late before they look for help, and that's going to be that. They're doing what they think they have to, and there's nobody except themselves to blame. But the vast majority of unqualified people aren't Naturists. They're just ordinary, reasonably healthy people who haven't liked the Eugenics Control laws and have been gambling on just riding out most minor illnesses. When they've been faced with serious illness, they've relied on underground doctors to take care of them. And for the most part, it's *worked*. The underground medicine hasn't been as good as Health Control care, it's involved more risk and poorer follow-up, but at least it's provided *some* kind of coverage for these people, under ordinary circumstances. The trouble is, this particular virus we're dealing with is by no means ordinary; it's lethal unless it's hit hard and

early. And all those people who have been relying on underground medicine are completely unprotected.”

Doc stood up and walked to the window. “Why don’t you simply declare an exemption in this case?” he said. “Declare an emergency, announce that the Shanghai flu has been found to be deadly dangerous, and that treatment is exempt from the sterilization requirement, that anyone can come in for Health Control treatment whether they can qualify or not. After all, you’re talking about mass mortality—thousands, maybe millions, of dead people if this thing isn’t stopped. Why not just take it out of the Eugenics Control program altogether?”

“That was the first approach we considered, and the answer is that we can’t. We’ve checked every possible angle, and our computers come up with the same thing: it would shatter the entire Health Control program. Well, think about what would happen if we published a broadside like that, Doctor. Here we have millions of people who have submitted to sterilization, like it or not, in order to qualify for health care because that was the law, the permanent Health Control policy of the nation. What do you think would happen if we suddenly told those people that now, when the chips were down, we were going to treat people who had never qualified themselves right alongside all those that had?”

“You’d have a lot of angry people,” Doc conceded.

“We’d have an uprising that would make the Health Riots of ninety-four look like a Sunday outing. Well, we just can’t do it, not like that. Flawed as the Eugenics Control program may be, we’re committed to it. We can’t just turn it on and off like a light. With the commitment we have, any change in the Eugenics Control program—any change *at all*—is going to have to come gradually, a bit at a time, with months or years of public preparation. Any sudden switch in policy would be lethal.”

“Then suppose you don’t offer any exemptions—just

tell the people what the true situation is and urge them to come in and qualify for care."

"And imply that the government is willing to sit around and watch multitudes die if they don't? I can see you're not long on public relations. The only way we've gotten as far as we have has been by presenting health care qualification as a matter of free choice, and even at that we look like a pretty stone-hearted crew in the public eye. Harden that image any more, and we'd have lynch mobs marching through Washington, and they'd be after *you* as well as *us*. There's another problem, too: a vast number of people resent the Eugenics Control program, even though they've qualified for health care. They feel it has violated their privacy, robbed them of their prerogative to decide about children. I admit we're to blame for that, the way we've implemented the program has always been far too heavy-handed, but that's the way many people feel. And because they resent us, they don't trust us. If we were to publish warnings *without* lifting qualification rules, there would be millions of unqualified people who *just wouldn't believe us*. They'd suspect a trick to coerce them into qualifying, and they'd back off in droves. They wouldn't believe us until it was too late."

The little Health Control man tapped out his pipe and laid it in the ashtray. Katie and Doc looked at each other. Finally Doc cleared his throat. "To sum it up rather bluntly," he said, "all you want is the impossible. You want all these unqualified people to come in for care when the virus strikes, but you have no way to provide them with care, or even make them believe you when you tell them they need it."

"That puts it about right," Turnbull said. "We have no way to provide them with care. No way within the Health Control program, that is. No *legal* way."

"And what exactly does *that* mean?"

Turnbull sighed. "Doctor, we have studied every con-

ceivable angle, and we keep coming up with the same answer. If these people can't be treated legally in the Health Control framework, they're going to have to be provided with treatment illegally. Somehow these unqualified people have to be contacted, by way of rumor, the underground medical grapevine, by any means we can think of—but *somehow*—and made to understand that they can and must get treatment for the Shanghai flu on a subrosa basis if they can't qualify for Health Control care. Health Control has got to be out of it; the government can't formally change its policy. But Health Control facilities can help. The outpatient clinics can provide the vaccinations and Viricidin shots and just look the other way as far as qualifications are concerned—on an unofficial basis—but unqualified people have got to get the word. If the doctors practicing underground medicine can get the word to their patients fast enough, *on an underground basis*, we might have a chance to defuse this thing."

For a long moment there was silence in the room. Then Doc spread his hands. "Mr. Turnbull, you're still asking for the impossible. How are you going to recruit doctors to go along with this sort of illegal program? How do you tell who's practicing underground medicine and who isn't? Who's going to believe you're sincere in asking this kind of help? You know what a doctor faces when he's convicted of underground practice—heavy fines, punitive surveillance, loss of his medical license, maybe even prison time. Who do you think is going to admit to underground practice just because you Health Control people all of a sudden want them to?"

"Suppose no admission were necessary," Turnbull said.

"What do you mean?"

"Precisely what I said," Turnbull replied. "Look, Dr. Long, if we're going to put our cards on the table, let's do so." He reached down and pulled a large manilla

folder from his briefcase. "I have a folder of data here—a dossier, if you will—dealing with certain legally unsanctioned medical activities of one Dr. John Long, Chief of Cardiovascular Surgery at Health Control Hospital Number Seven, and incidentally, an active practitioner of underground medicine for a period of over ten years. The data in this file goes back to the year 2007, although the early notes are very sketchy. Health Control didn't have its intelligence program very well organized at that time; we had all kinds of problems with local police authorities, and our surveillance techniques were still pretty crude. But in recent years we have done far better. We have been using surveillance techniques so effective and sophisticated that you have never even heard of them, much less had any way to avoid them. And with them, we have been following your activities. In fact, you might just be a little startled to know how *very* closely we've been following your activities."

Doc was sitting up straight now, peering intently at the little Health Control man. "Just how closely, for example?"

"All right, our records show that for the past four years you have been working with a medical supplies man—a so-called bladerunner—whose name and background are obscure but who is commonly known as 'Bilby Gimp.' He has a crippled foot, I believe, with first stage of surgical repair accomplished in early childhood. You've also had the help of a surgical nurse named Barret off and on for almost six years—an excellent girl, it seems, who thinks that the Eugenics Control laws are a travesty, and who has been involved in a couple of 'Nurses' Crusades' here at Hospital Number Seven, agitating for legal repeal—but that's neither here nor there. In the past several months, with the aid of the girl and the bladerunner, you've been accelerating your underground activity quite sharply, several surgical cases a week, ranging from routine procedures to some rather

technically difficult cases, including at least two gall bladder resections, right? Yes. Our last note, dated night before last, indicates that you performed tonsillectomies on the children of a family named Merriman in an apartment complex in the Trenton Sector, and that as you left the place your bladerunner was apprehended in a police ambush while you made an escape via heli-cab. The boy was interrogated, submitted to computer-court hearing, filed an appeal, and was released under continuous transponder surveillance. Last evening you saw the boy, and since your visit and that of another as-yet-undecided person, the transponder has been inactive—hasn't moved as much as five feet on the grid. In our experience, that probably means that the transponder has already been muffled and replaced with a stationary phony, although, of course, we can't be sure of that yet. We could resolve the question easily enough, but there's no need. The only reason for planting that transponder was to be very certain that we had either you or the boy quite firmly under our thumbs at this particular point in time. For the moment we're quite content to let the boy go where he wants to go, undetected." Turnbull set the folder down on the desk. "Dr. Long, I could go on and on with this, but what's the point? When I said that Health Control has permitted underground medical practice to flourish, I meant just that. We have all the data we need to stop it if it served our purposes to do so. We know the doctors involved, their bladerunners, their sources of medical supplies; but we have also been aware of the thin margin of acceptance for our Health Control programs during this transition period. To clamp down on the underground practitioners would close a very necessary escape valve, far too risky at this point."

"But you *have* clamped down," Doc protested. "What about all the arrests, convictions, fines we're hearing about?"

"Oh, a few showcase convictions have been necessary. After all, it is illegal, and we've had to demonstrate that the Health Control programs can't just be ignored. But mostly we've only bothered the most flagrant offenders. As long as we've known which doctors were involved there's been no need for widespread action. We've felt that once the transition period was over and the Eugenics Control laws were more widely accepted we could then phase out the underground practice a little at a time without resorting to legal action at all—just a little pressure in the right places at the right time."

Doc picked up the folder bearing his name and medical identification number, leafed through it for a moment. "And you mean to say you have this kind of file on every doctor engaged in underground practice?" he said incredulously.

"No, no, nothing that exhaustive. We've only kept records on the leaders, the activists in the underground—the ones we thought might really give us trouble one way or another. There's been no need to keep tabs on the others. We figured if we ever *had* to crack down, these key men would be the ones to stop, and most of the others would just quietly pull out without any other urging."

"I see." Doc sat silent for a long moment. Then he looked up at the little Health Control man. "Mr. Turnbull, why are you telling me all this?"

"I suppose I'm trying to convince you that we aren't entirely the monsters you make us out to be," Turnbull said. "We know more about underground practice than anyone suspects, but by and large we've kept our hands off because it's served a useful, necessary purpose. We're not indifferent to the needs and feelings of the people who oppose Eugenics Control, we never have been. And now, with this crisis on our hands, we can't just sit by. We *need* the underground network now, need it badly, but we haven't time to convince every underground doc-

tor of that, and we can't publicly back off from the Eugenics Control laws. That's why we desperately need you, and other key underground men, to get the word spread and get help to these unprotected people fast."

"But what can I do, realistically?" Doc said. "Sure, I could contact a dozen or so other doctors and try to enlist them, maybe contact a thousand patients one way or another, but that's not even a drop in the bucket."

"I know that," Turnbull said. "By yourself you'd be almost as helpless as we are. You just don't have the breadth of contact with the underground that we need right now—but you know someone who does. What we need now is a pyramid effect, a chain-letter effect, with the warning spreading out throughout the whole vast net of underground medical workers and their contacts, with each one of them contacting twenty more. We've got to get a wildfire underground rumor spreading fast, within the next twenty-four hours, if possible. Well, you can't do it yourself, Doctor, but there's one person who can do it for you if you can beg, bribe, or bludgeon him into it—one person you know with absolutely impeccable underground connections who could get the word spreading far and wide."

"You mean my bladerunner," Doc said quietly.

"I mean your bladerunner," Mason Turnbull replied.

XI

It was not until later, as he was making his way back down to his office, that Doc began to realize the full magnitude of the risk he had been asked to take—the risk to himself and, more particularly, to Billy Gimp. There had been no record made of the meeting with Mason Turnbull, no demonstrable evidence that it had occurred at all, except for Katie Durham's presence. There had been no promises made, no guarantees of immunity, no real assurance that Doc's cooperation, or Billy's, might not be met with harassment, redoubled surveillance or both. For all he could prove, it might be nothing but an elaborate scheme to entrap them, a move on the part of Health Control to put them out of action once and for all. The best Doc had to go on was his own certain knowledge that the exploding epidemic was terribly, frighteningly real (there was no doubting that) and Mason Turnbull's unsupported word that Doc's and Billy's cooperation with Health Control in fighting it would not soon be forgotten. Nor were there any suggestions that Health Control might be considering any basic reforms in the Eugenics Control program if this crisis could be overcome—nothing but Doc's growing conviction that the Department of Health Control would finally read the handwriting on the wall and recognize the grave, recurrent danger of similar epidem-

ics in the future. Conceivably—just conceivably—they might learn something from the crisis and be impelled to begin modifying the disastrously rigid program that currently existed. But precisely how he was supposed to get such a tenuous possibility across to Billy Gimp in any convincing way and recruit him for the underground task that had to be done, Doc was far from certain.

He pondered it as he rode the crowded elevator down to his office floor. One thing was sure: Billy would not like it. Billy was nobody's fool; already he was the unwilling victim of Health Control surveillance, for all that he might have escaped it temporarily. Billy might work for Doc, might even trust Doc (as much as he trusted anybody) but he would most assuredly not trust the unsupported word of a Health Control official even if Doc himself were convinced it was safe. If he were to cooperate at all, it would only be through Doc's influence—and the question was, would he even trust Doc when it came to something like this? If he wouldn't, there was no chance of the plan working. And there was precious little time for Doc to do any tall convincing, either.

Arriving at his office, he was both surprised and relieved to find Molly Barret waiting there. "What are you doing here?" he said. "I thought you had cases this morning."

"I did," she said, "but they pulled me out, told me to report to you. It was Dr. Durham's order. She said you were going to need me."

"Well, she's right about that." Doc sighed and sat down at his desk. "We're going to have our hands full for the next few days, I think." Quickly he told her about the meeting with Katie Durham and the Health Control man, the computer data on the epidemic and the unorthodox attack plan that Mason Turnbull had proposed. "It's got to be underground and it's got to be fast," he concluded, "which means doing a dozen things

at once. I've got to contact and recruit every doctor I know that has an underground practice, and in the meantime you and I, between us, are going to have to contact every underground patient we've ever seen and either get them to come in for protection or take the medicine to them. But most crucial of all, Health Control wants me to recruit Billy to get the word spreading through the underground—to reach every person he can that isn't yet qualified for Health Control care and line them up for treatment some way, any way, up to and including directing them into the Hospital Clinics for medication."

"Even if they don't qualify?"

"Even if they don't qualify. Health Control doesn't dare make a public pronouncement, but they'll look the other way in order to get these people protected. If the word can just reach the unqualified ones that it's deadly to try to 'ride out' this Shanghai flu, and that protective medication can be had with no questions asked, Health Control thinks they'll come in. They may be wary and suspicious, but they'll come."

"But those people can't get into a Health Control Clinic without giving their names, identifying numbers, addresses, qualifications, the whole works," Molly protested.

"That's the whole point," Doc said. "The word has got to get out that they *can*, in this instance. The clinic personnel are all getting the word that they aren't even to ask names, just administer the medicine to all comers."

Molly looked at him. "Do you really think Health Control will carry through on something like that?" she asked.

"Yes, I really think they will. I think they *have* to. Molly, if this underground epidemic isn't slowed down right now, there isn't going to be any Health Control; there's going to be chaos. People are going to start drop-

ping like flies, and there's going to be a panic like nothing that's been seen since the Dark Ages. Well, Health Control can't let that happen. They're going to *have* to stand by their word."

"Well, maybe you believe it," Molly said, "and maybe I believe it, but Billy isn't going to believe it."

"He isn't going to want to believe it, but we're going to have to convince him," Doc said.

"How?"

"That's the trouble. I don't *know* how," Doc exploded. "Seems to me we're at loggerheads half the time, that kid and me. Oh, he does his job, no problem there, but when it comes to trusting me, I don't know, I just can't seem to get through to him. He listens to you, all right, but when it comes to me, I might as well be talking to the wind."

"Maybe that's because I treat him like a human being," Molly said softly.

"Well, how do you think *I* treat him?"

"Like a bladerunner. Somebody to do what you want, when you want it, the way you want it done. Like a clamp or a scalpel or something—just another tool."

"But a bladerunner is a bladerunner."

"Yes, but he's also a person, with feelings and problems just like anybody else." The girl looked up at him angrily. "Doc, if you can't see it for yourself, how am I going to tell you? Of course he doesn't trust you. Why should he? You expect him to do what you want, sure, but when did you last think about what *he* might want? How many times has he asked you about that foot of his? And you just brush him off. There are ten surgeons around here who could fix that foot if you asked them to, and you keep promising, but nothing ever happens."

"Molly, if you think it's just the foot—"

"It isn't just the foot, that's just one of a dozen things. Oh, Doc, are you completely blind? He doesn't want to be just another tool; he looks up to you like nobody

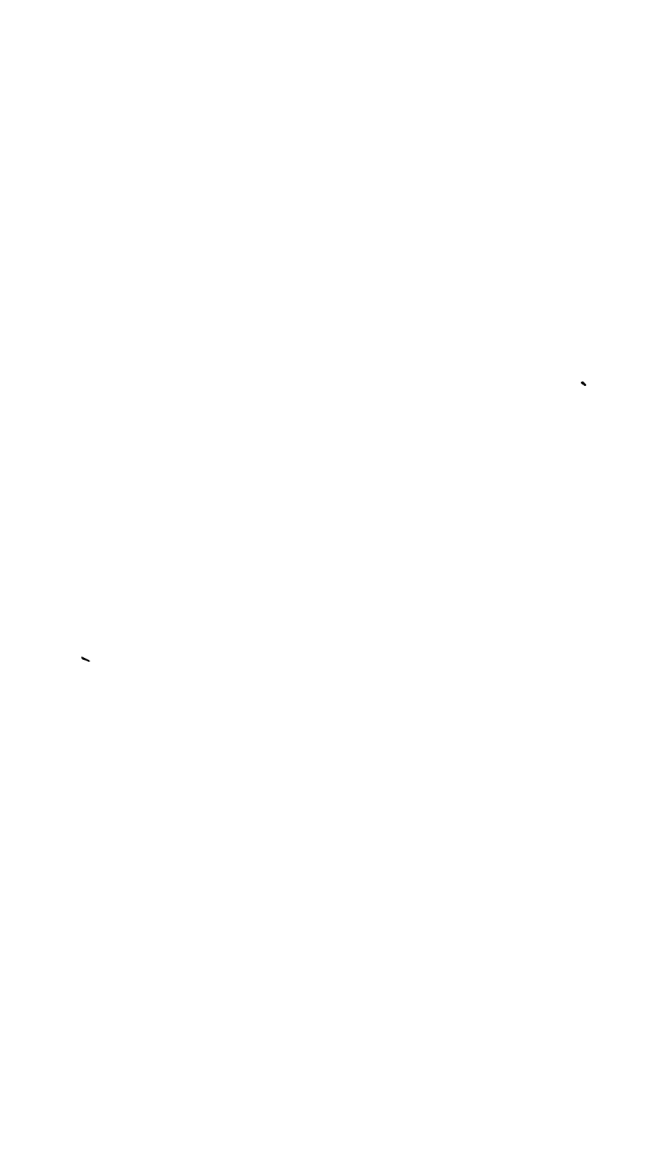
else. He wants to be somebody you can be proud of, not just another cheap bladerunner all his life. And yet he hates you half the time because you never give him an inch. If you'd once just give him an inch, just one little inch, you wouldn't believe the difference it would make."

For a long while Doc sat in silence, looking up at the girl. Finally he sighed. "Well, maybe you're right, and I've been blind. Or selfish, or both. I can't change it now, not all at once, that will take time, and there isn't time for changes now. For right now, all I can do is ask him to help. Maybe he will, and maybe he won't—but the chips are really down now, Molly. There's nothing else I can do but try."

Slowly, then, he picked up the telephone and punched out Billy's number.

PART THREE

THE BLADE RUNNER



I

For Billy Gimp the twenty-four hours that had elapsed after Doc had left him were the longest he had ever spent in his life. After Doc had gone, he had sat shivering in his room, waiting for the aspirin to beat down the fever, huddling in his coat as he alternately chilled and perspired. Finally he had crawled into bed, turned out the lights, and tried to sleep, but sleep came fitfully, with fever nightmares jarring him awake every twenty or thirty minutes. He tried sitting up and reading for a while, but could not keep his mind on the cheap paperback book. Finally, he lay blinking up at the darkness, his mind raising phantoms as fearful as the nightmares that had shaken his sleep.

Around his wrist he felt the hard pressure of the transponder bracelet and the muffler mesh that now surrounded it. At first he had welcomed the chance to be free of the tell-tale signal from the court-imposed transmitter, but now he was having second thoughts. Too feverish and achy to think it through at the time, it now occurred to him that it must be quite as illegal to muffle a transponder and substitute a phony signal as to remove it altogether. So far he had escaped prison terms or correctional time in his many scrapes with the law, but it seemed to him that getting caught out in a deliberate fraud, an inactivated bracelet still attached to his

wrist, would practically guarantee a confinement sentence if he should be nailed. And certainly the risk of detection would be great. Surely whoever was monitoring his transponder signal would get suspicious sooner or later if it never moved more than a block or two on the grid from one day to the next, and such freedom as he had with the muffler in place would be short-lived at best. And how could he trust the man who had installed the muffler, or even Doc himself, not to talk if the police were to put on the pressure? Maybe the man did owe Doc a favor, but such casual disregard for the law and its potential penalties?

Billy shook his head, feeling increasingly bewildered. Most confusing of all was Doc himself. Why had he been so anxious to get Billy's transponder muffled? He wasn't usually so solicitous of Billy's wants and feelings. Of course, it was nice enough for Doc to have Billy free to move around without surveillance—but what would he do if Billy got caught? As usual, Doc himself was in the clear. Sure, he'd taken a certain small risk, coming to Billy's room, but he could always claim he'd been called out to see a Hospital patient, perfectly legal even though Health Control frowned on it. Doc always managed to stay in the clear, but how far would he go for Billy if it came to a real showdown? How far could he really be trusted in a crunch? Probably not very far. After all, bladerunners were a dime a dozen these days. He could throw Billy to the wolves any time he wanted to—and there was precious little Doc had ever done to suggest that he thought of Billy as anything but a handy convenience, a link in the chain of getting his underground work done, but an expendable link that could be replaced without a second thought any time Doc thought it was necessary.

Even at the time, Billy was aware that these were fever-thoughts, paranoid nightmares his mind was conjuring up to torment him. In the morning when he could

think more clearly, he'd probably laugh at himself for such fears. Yet the very fact that the fears were there, so close to the surface, seemed slightly ominous. He wished desperately that Molly was there to talk to for a while. She, at least, could see things straight, and she had always treated him as an equal, a teammate rather than a flunky. Molly would be loyal, in a pinch, she would help if she could, but he couldn't call her out of bed at 4:00 in the morning. He got up, took more aspirin, trying to get his mind to quiet down. For now, there was nothing to do, nothing was going to happen before morning and that would be time enough to talk to Molly, if he still wanted to. Back in bed he closed his eyes again, forced his mind to relax, and finally slept for a while in spite of the recurring nightmares.

He woke to a grim winter day, almost 11:00 and the sky a threatening gray. Groaning, he dragged himself to his feet and started to dress. The headache and fever were back, and his body felt as if he had been pounded all night with sledge hammers. Groggily he looked for the envelope of capsules Doc had left for him—or had he dreamed that, too? Maybe he'd knocked them off onto the floor. He debated for a moment getting down on his hands and knees to look under the bed, but the very thought of that much exertion exhausted him and brought sweat out on his forehead. He found some more aspirin in the closet over the sink, swallowed two of them and then took two more for good measure. Maybe Doc would call and he could ask him about the capsules. He had no appetite, but he fished some rolls and butter and a half-finished milkshake from the refrigerator and forced himself to eat some. His eye caught the phony transmitter lying on his dresser, and he glanced down at the muffled instrument on his wrist. He was free to go out, move around if he wanted. He thought of this for a while, climbed into his coat, then lay back down on the bed in a fit of shivering. Maybe later he could go

out, get some air, get away from the stifling atmosphere of this place for a while, but first he had to muster some strength. Doc probably wouldn't be calling until later in the day anyway, somewhere near his usual time if he had a case lined up for evening.

The telephone jangled loud in the room. It rang three or four times before he could get across the room to stop it. "Billy here," he said.

"This is Doc," the familiar voice said. "How are you doing?"

"Okay, I guess. I dunno, I just got up."

"All right, listen, Billy. I've got to talk to you. Something's come up that requires some fast action."

"Doc, if you've got a case tonight, I dunno, I don't feel very good."

"This isn't a case the way you mean," Doc said, "and it's really urgent. Billy, I want you to grab a cab and get over here to my office as quickly as you can."

"To your office? You crazy or something? If they make a fix on this phony transponder you could have them right in your lap."

"You let me worry about that, okay? We've got to talk right away, and we can't do it on the phone. Get a cab and come on over just as fast as you can."

Before Billy could protest further, the receiver went dead. Billy sat staring stupidly at the phone for a few moments, still not certain that he had heard right. Suddenly an immense weariness seized him; more than anything else, he wanted to collapse into bed again, but instead he slowly buttoned up his coat, wrapped a scarf around his neck and checked his pockets for cab fare. A few moments later he took a last feverish look around his room and then stumbled down the stairs to the street.

The trip was a living nightmare as his mind slid in and out of waking fever-dreams. The snow was piled in drifts along the sidewalk and street, and he had to strug-

gle up, over or through them, sometimes plunging down hip-deep into the soft stuff and filling his shoes with snow as he extricated himself. No shovel-trucks had yet made it to this tenement area of the Lower City, and there were no cabs until he finally reached one of the Upper City arterials. Even then they wouldn't stop, whizzing by as he waited, cringing in the face of an icy wind. Finally he stepped out in the street, waving his arms directly in the path of a cab and brought it to a skidding halt. He had to pay in advance, but a moment later he was huddling in the back seat, chilling as the cab moved up into the more open streets of the Upper City. He dozed as he rode; at one point it occurred to him to check to see if he was being followed, but even the effort of turning around and peering out the back window seemed more than he could manage. He finally gave up and sat back to rest as the cab made its way up the thoroughfares and finally pulled in at the main lobby entrance to Hospital No. 7. A moment later Billy was making his way through the crowds of people in the lobby to the first bank of elevators. At the twenty-eighth floor he turned right and finally stopped in front of an office door marked *JOHN H. LONG, M.D.* Warily, he pushed his way in without knocking.

Doc and Molly were both there, and Doc stood up to take Billy's overcoat. "Good boy," he said, "that was a fast trip."

"Yeah, well, I hope you know what you're doing. The more I think about this phony bracelet setup, the less I like it, and I should think you'd be a little bit worried too, if they find out about it."

"It doesn't matter, Billy. They know all about the phony bracelet, and they're not going to bother us about it, at least not right now."

Billy looked up suspiciously. "What do you mean?"

"I mean that Health Control knows all about our little operation. They've known about it for years, and

there's no question of identifying you or me or Molly here. They already know—right down to the present moment.”

Billy looked from one to the other, bewildered. “Wait a minute, man, what are you saying? Who told you that?”

“The District Director of the Department of Health Control, right from the top. I spent two hours with him just this morning, and he has a file on our underground activities that would make your eyes pop.”

“Then I don't get it. How come you're walking around loose?”

“Because Health Control wants me walking around loose. What's more, they want you walking around loose, too. In fact, right now Health Control very badly needs you out and around as a free and functioning bladerunner. They need some help that only a bladerunner can provide.”

Quickly, then, Doc briefed Billy on his earlier meeting with the Health Control man. He covered everything—his own suspicions of the nature of the epidemic going on, the computer analysis of Hospital No. 7's experience, the magnitude and threat of the epidemic as Health Control saw it, even Mason Turnbull's contention that Health Control purposely allowed underground medicine to flourish as a means of decompressing public criticism of the controversial Eugenics Control program. Then, as even-handedly as he could, Doc sketched out Health Control's fear of widespread panic and rioting if they tried to deal directly with the spreading epidemic, and their plea to the forces of underground medicine to help them control it by extralegal means. “Word has got to get to people—all kinds of unqualified people, from the Naturists on down to the ordinary citizen who is putting off Health Control's qualification for as long as possible—that this illness is treacherous, potentially fatal, and that they've *got* to come in for treatment, or

get underground treatment, while there's still time. The underground doctors will be doing everything they can; I'm going to be recruiting other docs, and Molly will be tracking down and contacting our own patients, but this won't reach nearly enough people fast enough. We've got to get word to hundreds of thousands of people in a matter of days from sources they'll trust and listen to—in other words, *not* through official Health Control sources. And that means spreading the word through every underground channel possible, especially by way of bladerunners and suppliers who have contacts *they* can make, so that we have a pyramiding rumor going, a chain-letter effect."

"But, Doc, we aren't some kind of social club," Billy protested. "I mean, we don't get together at meetings and talk things over."

"But you know other bladerunners, don't you?"

"Well, sure, maybe a dozen or so, if I had time to track them down."

"Okay, then that's a start. Each one of them knows some that you don't know, right? And then there's Parrot; he must supply twenty or thirty bladerunners, and know a dozen other suppliers as well, and they've all got contacts with people. Each one could spread the word out further. The point is, *I* can't go to Parrot and get him to listen. Parrot wouldn't give me the time of day, and certainly Health Control can't go to him. Only one like you would stand a chance of selling him, and others, and getting the word spreading fast enough."

Billy sat listening, his bewildered expression slowly changing to a frown. "And Health Control came to you with this scheme?" he said slowly.

"That's right. They came to me."

"And you're supposed to sell me on the idea, and I'm supposed to go out and start beating the drum, is that right?"

"That's the idea," Doc said. "Molly and I will be working on our end, and—"

"And all they want me to do is go down into that jungle and lay my neck out on the block in order to help bail them out of a mess that their own Eugenics Control program has gotten them into, is that right?"

"Well—" Doc looked at Molly doubtfully. "I guess that's one way of looking at it."

"Yes, well, maybe this clown you talked to at Health Control thinks I've gone out of my mind or something," Billy retorted hotly, "but I haven't, not by a long way, and as far as I'm concerned, Health Control can go choke. Why should I help *them*, after what they've done to me? They've bugged me and harassed me, and staked me out until I couldn't move." He held up the transponder on his wrist and shook it under Doc's nose. "Where do you think this came from? It's on me because they wanted it on me, and if they find out I've jumped it, they'll throw me in the tank without a second thought. They want me locked up, they've *always* wanted me locked up."

"You make it sound like some kind of a personal feud," Molly said, "and that's silly. There's nothing personal about it, it's just part of their policy."

"Well, it may not be personal to them, but it's plenty personal to me. What about *my* life? It's been Health Control and their precious policies that have kept me running blades all these years, like a common thief. Do you think I like that? If it weren't for Health Control and their policies I could be a Med-Ex right now, a legitimate doctor's assistant, maybe even a lay anesthetist or a medical student, but what chance have I ever had? And what help do I get from them when I need medical care? I've had this crooked foot to limp around on all my lousy life; it wasn't my fault, I was just born with it, and I'll have it till I die, as far as they're concerned. *They* don't care about people. All they care about is

trimming down budgets and cutting down the population and playing around with people's genes and never mind what people think or how people feel. Well, now they're in trouble, and I think that's just great. They're not going to get any help from me."

"But it isn't really Health Control you'd be helping," Doc said quietly. "There are people, hundreds of thousands of people who are going to be sick and dying if this epidemic isn't stopped before it turns into a major national crisis."

"So maybe that's what we need to break their Health Control system apart," Billy retorted. "A crisis they can't handle."

"And you think *this* is the kind of crisis you want for that? Believe me, you don't. Nobody does. Sure, once this is under control, if Health Control can squeeze through this somehow, they're going to face another kind of crisis—a crisis of confidence like nothing they've faced before. And they're going to have to make changes, modify their programs. They can't take a risk like this again. But the changes are going to have to come slowly, not convulsively. And in the meantime, thousands of people are in deadly danger *now*."

"Well, *I* didn't put them in danger," Billy said. "Why should I have to be responsible?"

Doc sighed. "Maybe for the same reason that I have to be responsible for all the people you and I and Molly have treated on the underground. It's just part of what we bargained for when we started work together, Billy. There's been a real, consuming need for what we've been doing, a need that the Health Control system was simply ignoring. Well, we picked up the ball—you just as much as me. I went underground because there wasn't anything else I could do as a doctor. *People needed underground doctors*. But in a way we're to blame that a lot of the people we treated never qualified for Health Control. We kept them away, and we're responsible.

And now those people and a lot of others need help from you to help head off a real disaster."

Billy stared at him, shaking his head in confusion. "Doc, you can't say that I'm to blame. All I ever did was what you wanted done, what you told me to do."

"Okay, then say this is one more thing I want you to do. Say it's just another one of my cases, a tough case and just incredibly important. I'm into it up to my ears, but I can't handle it alone. I need your help."

For a long time Billy sat there, staring first at Doc, then at Molly, and then back. His head was pounding fiercely, and the room seemed so stifling he could hardly breathe. On the wall above Doc's head the lights on the page board blinked in an ever-changing random pattern as he tried to fix his attention, express the suspicions and misgivings that were screaming through his mind. "Suppose it's all phony," he said finally. "Suppose this is all just a dodge that Health Control has set up to bring people into the Clinics so they can nail down their names and ID numbers and scare them or force them into qualifying whether they want to or not. How do you know they're not just sucking you in too?"

"I don't think so, Billy," Doc said. "If I didn't think this was dead serious I wouldn't be sticking *my* neck out. It's too big to be phony; there are too many parts that I *know* are true."

"What about you, Molly? Are you in on it too?"

"I think I have to be. If it's phony, Health Control is making a terrible mistake—but I don't think it's phony. I've been watching the lines of sick people coming in here. They're very real. And very sick."

Billy clenched his jaw, suddenly shivering. "I don't like it," he said miserably. "I don't understand it, and I don't trust it, and I don't get anything out of it, and if there's something wrong with it, it's going to be *my* neck that gets broken, not yours. I don't like any part of it,

and I don't feel good. My head's not even on straight, and you want me to go out and try to sell a bunch of very rough people on a story they're not going to believe in a million years."

Doc looked at him sharply. "Haven't you been taking those capsules I left you last night?"

"Capsules? Well, maybe some of them, I guess. What were they for? Seems like I went to look for them and couldn't find them or something."

"Oh, lord." Doc dug in his bag, brought out a temp-clip and snapped it to Billy's ear. "Well, there's no fever right now," he said a moment later. "But, Billy, you've got to take this medicine, do you hear me? I'll give you some more by injection, and some more capsules, but you've got to take them. Your neck isn't sore, is it?"

"No more than anything else. Everything's sore right now."

"Billy, if you're going to do this, you've got to stay on your feet."

"Well, I still don't like it. I need some time to think."

"There isn't time now. If you can't move with us now, we'll just have to go back to Health Control and start looking for somebody else. Billy, can't you just trust me this once? Work with me like you always have. If we can help get this thing slowed down, I swear I'll get anything for you that you want, if there's any possible way, with Molly as my witness."

Billy looked up at him. "You mean even my foot?"

"Your *foot*? Yes, certainly your foot, if that's what you want. Anything."

"In this Hospital? Without having to meet any qualifications?"

"Yes, I'll guarantee it. If I have to take Health Control apart with my bare hands, I'll see that it's done."

Billy sat up slowly. "You heard him, Molly? You heard what he said?"

"I heard," the girl said. "And I'll hold him to it."

"Okay, then. He's got a deal." Billy struggled to his feet, started to climb into his coat again. "Better get me that medicine, Doc. And some aspirin too, maybe. I may not have a fever, but my head's swimming."

"Do you want Molly to go along with you?"

"No, no, that wouldn't be safe. What you're talking about is going to be very tricky. I'll go alone, and I'll either make out all right or I won't." He winced as Doc's injection pierced his arm, rubbed the spot as he pulled his sleeve down. "I think I'll be okay if I can get this head to stand still."

"Well, don't take silly chances, and check back here by phone this evening, do you understand? Leave a message if I'm not here. Molly and I will be contacting all the patients I have records on, but I'll keep one phone line open with a tape on it all the time. If you run into trouble, let me know, and call sooner if you need to."

"Okay." Billy opened the door, started out, then turned back. "Okay. But Doc—you'd better not forget what you said."

"Don't fret about it," Doc said quietly. "This time I won't forget."

II

In spite of his aching muscles and his aching head and the lingering feverish distrust of the whole impossible project, Billy Gimp moved swiftly after leaving Doc and Molly behind. He had understood the scope of their talk perfectly well, for all his apparent bewilderment, and he recognized from the start that the people he would have to contact and—somehow—convince of the urgency of the crisis and the necessary steps to be taken could not be reached by telephone. They would have to be sought out one by one in their nests and warrens throughout the Lower City—those that were willing to be sought out at all—and Billy knew the search would not be easy. And since cabs would be the fastest way to move through the labyrinthine regions of the city that he was going to have to travel, Billy chose cabs, using the handful of currency that Doc had shoved into his hand for the purpose as he was departing.

Before leaving the Hospital, however, he stopped at a public phone in the lobby and placed a code call to Parrot, waiting for the receiver to be lifted and then punching out the musical number-and-letter sequence he always used to tell Parrot he was coming to his shop so that no voice-print record could be lifted from a phone tap. In this case, after a moment's hesitation, he added a special code signal to indicate that he had to see Parrot

urgently and in person, and then held the line open until, at last, Parrot's "come ahead" signal came through.

It was, in effect, a peremptory demand for an audience, and he knew that Parrot wouldn't like it, but there was nothing else to do. As far as Billy could still think rationally, it seemed to him that he had to start with Parrot. If he couldn't convince Parrot of the urgency of the crisis, and enlist his active help—Parrot, who had known him and dealt with him for all these years and who probably trusted him about as far as Parrot trusted anyone—there would be no point in going any further. With Parrot's help there was a slender outside chance that he might conceivably be able to contact and convince others that he had to convince. Without Parrot's help he would be in a hopeless—and exceedingly dangerous—situation.

And, at a distance, convincing Parrot seemed plausible. But an hour later when he was facing Parrot in person, in the basement storage room of Parrot's own shop, with the fat little man's cold, untrusting eyes stabbing at Billy over his grotesque little half-glasses, Billy's confidence of convincing Parrot of anything vanished like a fever-dream. Billy talked, and realized as he talked that what he was saying could only sound insane to Parrot. If Billy's own distrust of aiding and abetting a Health Control-sponsored scheme in any way had been dogged and pervasive in spite of the urging of Doc and Molly, Parrot's was positively monolithic. At first he virtually turned off everything Billy was saying, scowling and shaking his head and drinking cup after cup of the scalding black coffee from his back burner, but Billy was persistent and presently Parrot, still scowling and shaking his head, at least began to listen. There had, after all, been rumors, a singular increase in emergency calls filtering through Parrot's hands, and the words "meningitis" and "epidemic," seldom before bandied about in his circles, had been turning up spontaneously and with disquieting frequency lately. Little that occurred

in the world of underground medicine escaped Parrot's ears for long, with the sweeping breadth of his contacts and involvements, and certain items he had heard and passed off as unlikely or plainly false before struck an oddly familiar note now, coming from Billy. Parrot listened, and scowled, and pulled on his fingers as Billy, huddled and shivering on a stool across the coffee bar from him, told him everything that Doc had recounted in detail, and toward the end Parrot was still scowling as blackly as ever, but now nodding his head from time to time instead of shaking it. "And you believe all this?" he said when Billy finally finished.

"I don't know. I guess so. I don't trust Health Control for anything, but Doc seems to, in this case."

"And there was no question on the computer analysis?"

"I guess not."

Parrot pulled his lip. "All right, go through this all again, right from the start." He poured Billy more coffee, and then listened intently as Billy sipped and shivered and repeated himself, emphasizing the odd pattern of the infection, the prodromal flu-like symptoms, the period of apparent recovery from the flu ("Doc says in most cases it's about a week, but sometimes it's only a day or so of apparent partial recovery before the meningitis starts") and then the later secondary symptoms of headache and stiff neck and spiraling fever. As Billy talked, Parrot hoisted himself from his chair, nodding to keep him talking, and began riffling through a large circular card file, jotting occasional notes on a sheet of paper. "If it were a severe, alarming infection right from the beginning, there would be less problem," Billy said. "People would seek out medical help of *some* kind, legal or illegal, right away, but that hasn't been happening. It just acts like a minor flu bug at first, and then by the time the secondary symptoms begin the fat's already in the fire."

"And what's the meningitis mortality?" Parrot prompted. "Forty percent?"

"Not that much, but it's close to thirty, from the Hospital records, and Doc said the Health Control man confirmed it, said it might be even higher, depending on the individual victim's age and general condition and other things."

"But what's the infection rate? How many people get the thing at all?"

"Nobody's sure," Billy said. "There aren't any underground statistics at all, and the Hospital statistics only show the top of the iceberg, but they think probably the flu is hitting twenty-five to thirty percent of the general population, about the same as an ordinary flu epidemic, and that thirty percent of them are coming up with the meningitis later."

Parrot whistled softly. "Lord, you know what that could do if it ever really hit?"

"It could wipe out Health Control," Billy said.

"And everything else too, including us. Talk about health riots—there wouldn't be a doctor or bladerunner or supplier left alive, if it's really true and isn't stopped. Okay, first we check things out. If it's true here, it's true elsewhere too, and others have the story. You just sit tight awhile."

Billy sat, still shivering, while Parrot huddled over the telephone, a husher obscuring his words but not the gray expression on his face. Half an hour passed, then another, as Parrot talked, pausing now and then to redial, occasionally scribbling a note. Finally he turned back to Billy. "You say that Health Control is willing to treat everybody, whether they're qualified or not?"

"That's what Doc said. No questions asked. For the flu itself a hefty dose of injectable Viricidin will stop it cold. Those exposed but without symptoms should get immune globulin along with the Viricidin. Even the meningitis can be stopped with Viricidin in massive dos-

es if it's given early enough, but they'll hospitalize people for support if they have to. At least that's the story Doc got."

Parrot nodded. "It jibes with some other sources just enough to believe it. The trouble is, a whole lot of people won't go in for treatment, infection or no infection. They just won't trust the government."

"I know, but if the bladerunners can get the word out to their suppliers, and other bladerunners and their docs, really get a hot rumor going, not just piecemeal stuff but a real underground rumble, and then each one canvass all the patients he knows, a lot of people will at least see their docs on the underground."

"And Health Control is not going to jump these people, or the bladerunners, or the docs? Not in any way?"

"That's supposed to be the deal. Nothing official, but there's supposed to be no surveillance, no questioning for qualifications. The Hospital personnel will be instructed to just turn their backs on the questions and give the medication wholesale, and supplies will be provided for the underground at every Hospital. The problem is to contact every bladerunner we can, and every supplier we can, just as fast as we can."

Parrot returned to his card file thoughtfully. "I can reach some of these people best and quickest myself. But some of the bladerunners you can hit better than I can, especially if I flag them first with code calls so they won't be too suspicious when they see you. You're going to have to do some fast talking, though, with all the hard data you can give them. They're not going to want to believe you." He added more names, addresses, and phone contacts to a lengthening list and thrust it across to Billy. "Whatever you do, don't let this out of your hands," Parrot warned. "And for both our sakes, let's hope your information is straight. We could both be in very bad trouble if this is even a little bit phony."

"I know," Billy said wearily. "But we should know

within twelve hours if Health Control is really opening up the Clinics and the underground supplies. If they aren't, we'll just have to pull back and take our chances."

Sitting down together, they went over Billy's list name by name. "You know some of these guys, and they'll all get code calls from me," Parrot said. "When I've got that done I'll get on to some of the other suppliers and see if I can get them moving, at least passing the word to the bladerunners working out of their shops. When you've hit these guys, check back with me and I'll get you some more names. Meanwhile we can see if there's been any feedback from the Clinics, and you can let me know what you've heard from Doc."

It had taken three hours, enlisting Parrot's aid, but it had been time well spent. With a last cup of coffee Billy gulped down one of Doc's capsules and a couple of aspirin; moments later he was outside, flagging a ground-cab, Parrot's list in his hand. Some of the addresses were tenement flats like his own. Others were a variety of Lower City hangouts where bladerunners tended to gather in their off hours, some familiar to Billy, some foreign. The cabbie was unenthusiastic about the rounds he was asked to make, the cluttered slum streets and the unguarded streetcorner waits while Billy was inside, but money brightened his eye, and Billy started his rounds. At one place, a dirty restaurant-pool hall in one of the unreclaimed slum areas of a nearby section of the Lower City, he found three bladerunners he knew, youngsters like himself, huddled over food and watching him suspiciously as he talked, convincing them finally, grudgingly, at least to contact their docs and canvass their own patient lists. At another place he ran into a sometime friend who took to the story more warmly and agreed to contact two other runners he lived with to see if they couldn't contact more. With the more commonly

frequented local watering holes covered, Billy moved farther afield, running up flights of stairs and pounding on doors of individual rooms, apartments and tenements, waking some of the runners from dead sleep, interrupting others in planning stages of cases, moving as swiftly as he could and talking feverishly to every one that would listen. At one place a surly bladerunner on Parrot's list flatly refused to have anything to do with Billy's scheme; at another place the occupant of a room, more irritable than others, talked only through a door opened a crack, sounding unconvinced until Billy told him to check back either with Parrot or with his own supplier to confirm the story.

Another place was different, a tiny darkened room at the end of a broken-down tenement hallway, a place where melting snow was dripping through the roof and a wet, greenish mold had worked its way through the aged and rag-tag wallpaper, a place smelling of garbage and vomit, with rats the size of cats skittering into darkened corners as Billy passed. Inside the tiny room, curtains all pulled, a skinny youth of about fourteen lay huddled in a filthy bed, shivering, gesturing weakly to Billy to find some place to sit. "I'm sick, man," the boy groaned. "Goddam flu, I think, I can't stop shaking—"

Billy worked to get his attention, told him the story, but soon the boy was interrupting him with irrelevant questions, and it was clear that he wasn't going anywhere or doing anything. Billy felt his forehead, hot and dry, and heated up some soup for him, the only food he could find in the place. "You're sick, all right," Billy said. "Probably the same thing we're trying to get stopped. Can you reach your doc?"

"Don't have a doc now," the boy said. "I got fired two weeks ago, and things have been tight."

"You need some medicine, all the same. You could get it free at a Clinic, like I've been telling you."

The boy groaned. "I could never make it," he said. "Couldn't hardly get the shades pulled down this morning."

"Well, then take some of these," Billy said, dumping a pile of his own white-and-brown capsules out on a chair beside the bed. "Here, gulp down two of them right now. I'll try to get a doc to you some way, but this may help in the meantime. I'm not feeling so hot myself."

In point of fact he was feeling more exhausted and confused by the minute, but he went on as the afternoon hours wore along and darkness came, clinging to his list and doggedly checking off the names one by one. His head was aching again, and now his chest was getting tight, as if a steel hoop was shrinking around it, and from time to time a paroxysm of coughing left him gasping for breath. Things beyond the checklist drifted hazily out of his mind; he remembered vaguely that he was supposed to check in with Doc at some hour or another, but he couldn't remember when, and when he finally tried it from a public booth he couldn't get through for some reason. It was hours later when he thought to try again, and he sat in a booth then for almost half an hour with his head on his elbow against the plastic door before a contact was finally made and he heard Doc demanding why he was so late and what he'd been doing, and he reported his conference with Parrot and the long day of contacting bladerunners.

Doc sounded mollified then, almost pleased. "Okay, I've been working all day too, and I've got a list of calls a mile long for tonight," Doc said. "I'm sending Molly out alone on the ones in the Upper City, she'll be safe enough there, and I'll take the Lower City names and some in the intermediate levels. How are you holding up now?"

"Okay, I guess, but I've still got a string of contacts to make."

"Well, don't crowd it, you can't work around the clock in your condition. Why don't you go get some sleep now? I'll check back with you in the morning."

"Okay, I'll quit for a while. I've just a couple more of these names to contact first." Billy rang off, then sat wondering for a moment what Doc had just said. He saw the list of names in his hand, and placed a call to Parrot.

"Did you call Doc?" Parrot said immediately. "What did he have to say?"

"Not much that I remember, except that he's working."

"Well, some of the other docs are too, I've heard, so *something* must be getting through. And we've had at least one real break. I finally got Brown convinced of the story—you know Brown? He supplies a whole big area around Hospital Number Eleven, west of here, must work with forty or fifty bladerunners and their docs—and he's going to get things moving on his end. He got smart, called Hospital Number Eleven Central Supply and asked them for immune globulin and Viricidin supplies, and in one-half hour they had a whole truckload of injection packs on his doorstep. He's up to his ears in them—so they must mean business. Okay, he's got a list of runners he'd like you to see, he isn't exactly popular with his boys, always clipping them too much, but he'll back you up if you'll make the contacts. Just swing by here and get the list. And the feedback is starting to come in from the Clinic at Hospital Number Seven that people are getting Viricidin shots with no questions asked; they're not even taking names or IDs. So if we can get the word around that Health Control is really looking the other way, I think we can get a lot of these people to go in to the Clinics and save the docs many steps. No bad feedback yet, either, Billy . . . Billy? Hey, are you there?"

"Yeah, yeah, I'm here," Billy said dully. "No negative feedback, that's great."

"Okay, now, you come by for Brown's list when you finish the one you've got—and you'd better move. From what I've been hearing, there are thousands of people who have had this flu and just rode it out, *thousands* of them. Some of them are listening and accepting treatment and some are not, but it's going to take days, maybe weeks, to contact them all. There isn't any time to lose."

"Yeah, well, I'll be moving. See you later tonight or tomorrow." Billy hung up and sat looking at the list in his hand. Five, six, seven more to see, all strangers, the same long job of arguing, pleading, convincing with each one. He sighed and went back out to the waiting cab again. It was over four hours later before he was finally climbing the stairs to his own room, barely able to raise one foot ahead of the next. The light hurt his eyes, and the thought of food stirred no interest; coat and all, he collapsed on his bed and closed his eyes. He knew he had to rest, at least an hour or two, if he hoped to go on—and the new list from Parrot looked like three days' work. If he could relax a bit now perhaps his head would stop hurting. Moments later he drifted off, and slept for fourteen unbroken hours.

III

It did not take weeks, nor even days, however, before the results of the warning campaign began to show. Within twelve hours of Billy's departure from Doc's office there was an upsurge in patient visits to the emergency room clinics at Hospital No. 7, as indicated in the routine half-daily patient census, and by the following morning patients were queuing up by the hundreds at the Clinic treatment rooms inquiring about the flu shots they had heard were supposed to be available. Triple shifts of nurses were assigned to the treatment cubicles, and questions were deliberately limited to specific data which was necessary to guide the treatment. Had the patient had any symptoms of the Shanghai flu? If so, what symptoms and when? Was there fever or illness now? Any other members of the family exposed? Friends or other contacts? These and a few other questions—allergic history, for example, or past reactions to antibiotics—made up the specially tailored mini-history, and in any case in which "flu" was mentioned there was a notable absence of interest in names, identifying numbers or Health Control qualifications. The appropriate medications were dispensed, data on possible contacts was taken for special telephone crews to tackle later, and each treated patient was earnestly exhorted to pass the word to anyone—anyone at all—known to have been exposed

to the flu to come in for free protective shots with the greatest dispatch possible. People young and old shambled into the Clinics, people who had not darkened the door of a Health Control facility in twenty years, and each one, after receiving treatment, was enlisted as urgently and emphatically as possible as a bearer of the word to others.

True to the plan Mason Turnbull had outlined, there were no panic-inducing headlines from the Department of Health Control, no blanket announcements of amnesty from the qualification laws—but on the first day Health Control did release a low-key news announcement that a “possibly widespread” epidemic of Shanghai flu was “expected” in the city, and that “highly effective” preventive treatment could be obtained without charge at any regular Health Control facility. The following day Turnbull himself held a brief but well-covered press conference in which he mentioned reports “from some areas” of late-appearing meningitis-like symptoms believed to be related to the Shanghai flu, and again urged all who had had flu-like symptoms or had even had contact with influenza victims to present themselves at Health Control facilities for preventive and therapeutic treatment. It was a masterpiece of news manipulation, carefully geared both to stimulate action and defuse panic, and although Turnbull was rumored to have gone into total nervous collapse when the conference was over, the results of the broadcast were salutary. Health Control switchboards were flooded with calls and the queues at the Clinics and Hospitals lengthened.

Much of the influx of patients at Hospital No. 7 was ascribed to these announcements, but there was no question that underground rumors were contributing even more heavily. For Doc and Molly the first day had been spent telephoning multitudes of underground patients that they had treated in the past, urging them to come forth, and compiling a growing list of those who were

too suspicious to come to the Hospital, even at Doc's urging, but pleaded that he—or somebody—get them the protective medicine via underground channels. By evening Doc had apportioned these calls between himself and Molly Barret; after Billy's long-overdue call had come in, Doc and Molly set out on their respective ways on night-long rounds to catch those recalcitrant patients and urge them to pass the word to others they knew to come into the emergency rooms for care. And the lines grew longer.

Next morning Doc was back at the Hospital at seven, after two hours of stolen sleep, and met a hollow-eyed Molly in his office to compare notes. Over a hundred new calls were awaiting answers on his telephone recorder; even Molly was receiving calls from underground patients long since forgotten. It was clear from the doctors' call board in the Hospital lobby that other staff doctors were straggling in late or not at all—a reflection, Doc assumed, of their efforts to reach their own underground patients. Each of the staff had found a special notice from Dr. Katie Durham in his box the day before, announcing that the Hospital was going on Emergency Routine until the epidemic work was under control. Routine admissions were canceled, all but emergency surgery was canceled, and special Clinics, staff meetings, and teaching rounds were all canceled. What was more, it was made clear that there would be no formal inquiry as to where staff doctors might be and what they might be doing in the hours they were freed from the normal hospital routine. If they had underground patients to see, the notice seemed to imply, this was their opportunity to see them, and the earlier the better.

Briefly Doc and Molly went over their lists, agreeing who should see whom. Both kept a nervous eye on the phone, hoping for a call from Billy, but no call came. Finally Molly was paged for Emergency Room relief service, with another room being opened for administer-

ing Viricidin and immune globulin, and Doc started off for morning rounds on his recovering post-surgical patients. Both would be busy at the Hospital all morning, but would be free by midafternoon to get back to their lists of underground patients.

On the surgical wards one problem led to another, and it was hours later when Doc started back toward his office, feeling a bone-weariness he hadn't felt for months. Katie Durham, emerging from an office in the Computer Section, saw him boarding the elevator, and joined him. Her face was flushed, but there were lines of weariness about her eyes. "I don't know, John," she said as they stepped off the elevator and started down the corridor toward his office, "we're catching thousands of people, maybe tens of thousands by now, in the various Clinics—we've opened four of the specialty clinics to immunizations and protective shots—but the admission curve on the meningitis is still climbing. We're nearly out of isolation beds by now, and there are more coming in every hour. I wish we'd started all this ten days ago."

"Well, we didn't. But with all the activity now the curve is bound to show a drop pretty soon."

"Maybe so. If it doesn't, I don't know what we're going to do. These people coming in for shots are on the thin edge. It wouldn't take much to trigger a panic, and a lot of them are actively sick—" Her voice trailed off and she regarded him solemnly. "Do you have any idea what's happening on the underground end of this?"

"Hard to say yet," Doc said. "Molly Barret and I must have seen over two hundred people between us in the past twenty-four hours. Most of the other staff have been doing the same thing. How many contacts per doctor is hard to guess, but if each of the four hundred and fifty staff people have seen as many as we have, that adds up to ninety thousand contacts. It's probably not that good, but it could be close. The problem isn't contacting people, right now, it's getting supplies. My sup-

plier is going to be down to bare shelves tonight unless I miss my guess."

"So are we. Central Supply is very low, but we have a special shipment coming in from Chicago this afternoon. We seem to be further into this thing than other sectors of the city or country, the Health Control expediter tells me that they're mobilizing other areas somewhat more slowly, and that there's less urgency elsewhere. Which is fine, I guess. As long as panic stories don't start spilling out of here, we may just be in time." Katie looked up at him. "What do you hear from your boy?"

"Too little for comfort. I was just going to check." Doc flipped his console switch, scanned the list of calls that had come in while he was gone, and shook his head. "Nothing. I haven't heard from him since last night, and I don't like it. He said he was touching every base he could as fast as he could, but he's sick himself, sounded just terrible last night. He was supposed to check in again this morning, but he hasn't."

"Is there anything I can do?" Katie said.

"No, not at this point. He may just be out of reach of a phone, I don't know. From the lines downstairs, though, it looks as if the word is getting around somehow. You just see that there are enough supplies for us to dip into when we need to."

"I'll check with Central right now, but I think they'll be all right again by this afternoon. And John"—Katie paused on her way out—"don't *you* get too worn out. We don't want you sick too."

"Nor you." Doc looked up at her and smiled. "You know, it seems strange, the two of us being on the same side of the fence all of a sudden. Maybe when this is all over—if it ever gets over—we could have ourselves a night on the town. Dinner, a good show, not a word about medicine or Health Control."

"I haven't heard anything that's sounded so good in months," Katie said. "It's a date, John—when all this is

over." She hesitated a moment more, then turned and disappeared down the hall.

His desk was piled high with unfinished Hospital work, but Doc turned to the telephone and tried Billy's number for the third time that morning. As before, it rang and rang with no response. He left a tape message urging Billy to call back without delay, and turned back to his desk. There were heaps of patient records to review, X-rays and cardiograms to read for permanent recording, robot-operated cases to analyze and criticize, correspondence to answer. Doc buzzed for a sandwich to save time and dug into the pile, working steadily through the afternoon. At one point Molly checked in, about to leave the hospital to resume underground calls. Over coffee they studied her list, and she agreed to check back by early evening for new calls that would be accumulating.

With Molly on her way, Doc returned to his desk work, but he couldn't get his mind off Billy. As afternoon wore into evening there was still no word. Twice he tried calling Parrot with the code number Billy had given him, but although a connection was made each time, he heard only a recorder tape humming, and neither call was returned. With growing uneasiness Doc joined the evening crowd in the Hospital cafeteria, noting the almost complete absence of the usual clots of staff doctors around the table. He ordered a steak and black coffee, then returned to his office, and began systematically returning query calls that had piled up from underground patients during the afternoon. Now he found that people were noticeably more receptive to his urging that they come in to Hospital facilities for protective shots; only a few could not be convinced, and when Molly checked in about 9:00 P.M. he had only half a dozen additional names for her. "They just aren't as suspicious as they were yesterday," Doc told her. "Mostly

they just want to be reassured that the rumors they've heard are true."

"The important thing is they're hearing rumors," Molly said. "And that must mean that the bladerunners are getting the word around." She paused. "Have you heard from Billy?"

"Not a word."

"Doc, something's got to be wrong. He could have gotten hit on the head or almost anything—that's a rough crowd of people he's been trying to track down."

"I know it, but that's not what scares me. He was really in no shape to go out at all, and if he's forgotten to take those capsules—" Doc sighed. "Molly, I'm going to have to go find him. You get these names cleared and go home. I'll see you in the morning."

"You sure you don't want me along?"

"Not now. I'll call if I need you."

Outside the hospital the streets were crowded and ground-cabs were nowhere to be found. Doc made his way to the heliport on foot, haunted the loading dock until a cab came in to discharge passengers, and elbowed his way past a fat lady to claim the seat. Half an hour later, with many detours around still-icy Lower City streets, he paid off the cabbie and made his way up the rickety stairs to Billy's room.

The place was a shambles—and empty. The bedding was half torn from the bed; one bureau drawer gaped open, with clothes hanging out of it down to the floor. The message signal was blinking witlessly on the telephone console. Doc lifted the receiver and heard his own recorded message from earlier in the day, taped and never erased. Something caught his eye under the bed, and he scraped up a dozen Viricidin capsules that were scattered across the floor. For all the cold weather, Billy's coat lay in a heap on a chair. Beneath it on the floor was a crumpled sheet of note paper with pencilled

names on it, most of them crossed out—obviously people Billy had contacted, or tried to, the day before.

For a moment Doc surveyed the place. Clearly Billy had been here, probably slept here, and was gone again—but where? Doc crossed the room, sifted through the assorted junk piled on top of the bureau. The phony transponder was gone. Alarmed, Doc ransacked the bed, then dropped to hands and knees to search underneath. Finally he found the instrument, kicked far under the bed but still apparently functioning.

Doc set it gently back on the bureau, then cleared a chair and sat down, his mind working furiously. It wasn't like Billy to ignore a telephone message signal, nor was it like him not to call and check in when he was supposed to—not if he was thinking clearly. But fever did funny things to people's minds, and if Billy were getting sicker, there was no guessing where he might be, or in what kind of trouble. If there were a way to trace him—Doc stared at the telephone console for a moment, then once again dialed the number to reach Parrot. After three rings the receiver clicked. Doc punched the number code Billy had given him, and hung up. A moment later the call was returned. "Billy?" a man's voice said.

"No, this is John Long, Billy's doctor. I'm calling from Billy's room."

The TV on the phone console flickered on, and the fat, hook-nosed man peered at Doc intently. Finally satisfied, Parrot's voice was still cautious. "What's wrong?"

"I'm worried about Billy. He hasn't called since last night and he isn't in his room. Do you know where he is?"

Parrot pursed his lips. "He's not there? That's odd. He swung by here for supplies last evening, but I haven't heard from him since. I thought he was probably just sleeping." He hesitated. "Matter of fact, he looked awful. I was amazed he got through the day yesterday."

"I know," Doc said. "That's why I'm worried. He had some medicine but he may have forgotten to take it. Don't you have *any* idea where he could be?"

"He could be anyplace. He had a long list of contacts to make, and picked up some more last night, scattered all over the area. But let me just check a minute . . . hold on."

Parrot left the phone momentarily while Doc tapped his fingers impatiently. In a short while the fat man was back with some cards in his pudgy hands. "This might help," he said. "There was a kid named Roberts that he couldn't reach yesterday, a bladerunner, hard guy to run down. Important, too; he has a lot of contacts down in the East Four Hundred Fifteenth Street section, an area I can't get near. I got a tip on where Roberts might be, and told Billy about it last night." Parrot picked up a card and read off an address. "It's just a tavern down in the east side warehouse district, but Roberts hangs out there a lot between jobs. Billy could be down there and you might just catch him."

"What about the other contacts you gave him?"

Parrot hesitated. "I can give you the list, but you could get in bad trouble fooling with some of those people."

"That's a risk I'll just have to take," Doc said. "I've got to find Billy. I should never have sent him out in the first place, and if he needs help now, I'm the one that's elected. Let me have the names."

He scribbled quickly as Parrot gave him names, addresses, directions. Finally he rang off, and sat for some time staring at the list. Conceivably Billy could have gone to contact the one named Roberts—he found Roberts's name on Billy's note sheet, the entry unchecked, with a side note naming the tavern—but he could just as well be seeking out any of the others on Parrot's list, or simply wandering around in a feverish daze, for that matter. There were a dozen names on the list; working

alone, Doc realized, it could take him days to run them all down in an effort to trace Billy. Yet he knew he didn't dare wait any longer for Billy to return or call in. As he puzzled over where to start, a thought occurred, and on impulse he rang Katie Durham's Hospital office.

She was still there, for all the late hour, looking harried but surprisingly fresh. "Katie, when we talked this morning you offered some help," Doc said, "and now I need it."

"Anything I can do, John. Is it your Billy?"

"That's right. He's disappeared, and he's sick. I'm afraid he may be in trouble."

"You want an all-points alarm out on him?"

"You mean police? Lord, no, that would really blow our underground drive apart. But I've got a long list of places he might be, and I need to cover them fast. If you could release a Hospital hovercraft for me, and a couple of people to man it for me, it could save me hours—and hours could be precious."

Katie frowned. "I think all the Hospital craft are out," she said, checking a call-board. "No, wait, there's still one down in the dock. But it's got to be urgent, John."

"It's urgent," Doc said. "Just send it down here." He gave her Billy's address, and rang off. Moments later he was waiting down on the street, hunched against a cold wind, the list of contacts folded in his pocket, trying hard not to contemplate how urgent his mission might really be.

IV

It had been broad daylight when Billy Gimp awakened with a start, uncertain even of where he was. A clock on the bureau showed a little after 3:00 P.M., and he realized dimly that he must have slept fourteen hours at least. It had been a restless, dream-tormented sleep, though, and it seemed to him that he felt more weary now than he had the night before. His head ached furiously; his chest was so tight that each breath was painful, and a dry, wracking cough drove him breathless as he got up and staggered across the room. Vaguely he remembered—or had he dreamed it?—that a telephone had been ringing some time earlier; he had struggled out of bed to answer it, but his limbs had been like lead, and he had sprawled on the floor. By the time he had limped to the phone, the call was gone, if there had been a call at all. Now he stared at the message signal, blinking on and off, as if hypnotized by it. Finally he picked up the receiver, heard Doc's voice asking him to call. But wasn't that last night? Billy tried to clear his mind, but another fit of coughing seized him and he dropped the receiver back without even erasing the tape. He had already called Doc, he was certain of that, no point in calling again so soon, nothing new to report—or was there? What had he done last night?

Frighteningly, he couldn't remember. There was

something about Roberts, and a whole new list from Parrot. He tottered back to sit on the bed, exhausted and confused. On the floor were the note sheets he must have dropped from his pocket, the contacts he had made, or failed to make, earlier. He picked them up, stared at them stupidly and watched in a feverish haze as they fluttered to the floor again. Most of the names were checked off, all but one or two. Surely he'd done enough, done what Doc had wanted him to do, but there was still someone he had to go back to see. . . .

Roberts. For a moment, his mind focused clearly. He hadn't connected with Roberts, not even with Parrot's tip, and Roberts had to be seen. Aside from his other widespread contacts, Roberts was the key to two suppliers who were vital links in the underground chain. Even if the other new contacts Parrot had given him were left to go begging, he had to try again to reach Roberts.

He stood up shakily, stripping off his dirty shirt and undershirt and searching for something cleaner in the dresser. His sleeve caught the phony transponder and sent it skittering under the bed, but Billy hardly noticed. He struggled into his coat, got it on inside out, tugged it off and inadvertently dropped it on the floor; for a moment he just stood staring at it, and finally decided it was not worth the effort to reach down and pick it up. He pulled on a sweater instead, surveyed the room with his head swimming, and finally started down the stairs.

He was halfway down the first flight when he heard his phone jangling again. Swearing, he stopped and listened as it rang and rang. Then it was silent again, and he leaned wearily on the railing. Probably it was Doc, he should have tried to get it, should have tried to call while he was still up there, but the room seemed miles out of reach now, far too difficult to go back. Doc would keep. If he could just get down the stairs now, one step at a time down to the street, he could maybe get back to the

place where Roberts might be found, get the message and supplies to him, finish what he had started yesterday the way Doc had asked him to, so that he could stop and rest and sleep and wait for this headache to go away. . . .

It was cold outside, with a biting wind that chewed through the light sweater and made his chest tighten all the more. It seemed to Billy that there was more street traffic than usual, with cars and trucks jamming up the narrow streets and people crowding the sidewalks and doorways. The place he had looked for Roberts the night before was miles to the southeast, but he started walking, bending against the wind. Within a block his teeth were chattering uncontrollably and the cough became so painful he had to lean against a lamppost until it eased. He watched three empty ground-cabs creep by before it dawned on him that he still had money in his pockets and could ride.

From that point on the day degenerated into nightmare. The tavern, when he reached it, was crowded, but Roberts was nowhere to be seen. At first the hard-eyed bartender denied having heard of any Roberts, but then he looked more closely at Billy, shivering uncontrollably on the bar stool, and frowned. "What's the matter, you sick? You a patient or something?"

"Yeah, I'm a patient. I gotta see Roberts."

"You're too early, he never gets here till almost midnight. Come on back then; he'll take care of you."

Nodding dazedly, Billy stumbled out of the place. Back in the cab he dug in his pockets, spilling the bundle of Viricidin injection kits Parrot had given him onto the seat, and came up with Parrot's list of contacts he had picked up last night. Only a few were checked off—he must have given up early. But there were more than six hours before midnight, plenty of time to contact some of them.

He gave the cabbie an address and plunged in. Where

he went, exactly, he never could have said. Half the time he was in a stupor, with stairways, alleys, and crowded streets flashing by in blurred succession. At one point he was asking someone—a bartender?—for aspirin, gulping down the white pills with water, inhaling some and coughing until his sides ached to clear his chest again. Later he was facing a chubby, dough-faced youth with a badly scarred cheek across a table, talking, pleading, urging the boy to contact other bladerunners he knew, yet sensing from the fish-eyed stare that what he was saying was making no sense. At another place someone hurled him down a flight of stairs and he remembered thinking, like a drunken man, how lightly and gracefully he was falling, pirouetting in dreamlike slow motion until he thudded to a stop on the landing below. And later still, someone was feeding him something somewhere, a warm, watery soup that made him gag and cough, yet introduced a spot of warmth that did wonders for his chill.

And finally, miraculously, seven hours and a half a dozen calls later, he was back at the tavern where Roberts was due, the bundle of Viricidin kits still stuffed in his pants pocket. The place, a combination of tavern, restaurant, and pool hall, was crowded and noisy now; a jukebox screamed, and people were packed in three deep at the bar. Near the door Billy saw a group of Naturist men, heads and beards half shaven, clustered together in deep conversation. Billy slipped past them, then paused to peer back into the bluish gloom of the place, almost gagging at the combined stench of beer, wet clothes, and acrid smoke. He had met Roberts only once before, remembered only vaguely the long, dirty-blond hair and the hatchet face, but he was sure that if he saw him he would recognize him. Moving past the bar and pool tables, Billy searched the tables and booths toward the rear.

Roberts was sitting with two others in the farthest

booth, eating in sullen silence. As Billy approached he put his fork down and sat up straight. "Roberts?" Billy said, hesitating.

"Who wants him?" one of the others said.

"I'm Billy Gimp. I work out of Parrot's shop. He wanted me to see you."

Roberts motioned him to sit down. "Parrot threw me out on my can three years ago. Said he was tired of my face. What does he want now?"

"It's about this flu that's around, it's bad news and the word's gotta be spread." Fumbling for words, Billy told the story as clearly as he could remember it. "They figure people are going to be dying in flocks if we don't move," he concluded, "and that means seeing patients and making other contacts, both."

"There's been some meningitis around," Roberts conceded, "but I haven't seen anybody dying."

"You will. It's the same thing as the flu, a late complication. People got to be protected. Viricidin if they're sick, immune globulin if they've been exposed, polyvalent vaccine for everybody who hasn't gotten the flu yet. They can get it at any Hospital or Clinic."

Roberts shook his head suspiciously. "Who put you onto this? You sound like a shill for Health Control to me."

"Not so, but the word is getting around."

"I haven't heard anything from my doc."

"Maybe he just hasn't heard yet. We're trying to spread this as far and fast as possible. I've got some injection kits for you to start with." Billy hauled the bundle of supplies out of his pocket and set it on the table. "There's no cost; we're moving these things free before we have a full-scale epidemic going out of control."

"I don't like it," Roberts said. "I've been hearing a thousand rumors, all different. Why should I believe you?"

"Don't believe me. Call Parrot."

"I don't mess around with Partot."

"Then call your own supplier."

Roberts came to his feet. "I'll do that, right now." He looked at his two companions. "Keep this gimpy one here till I get back."

Billy sat at the table, still shivering, as the youth crossed the room to a telephone booth. Roberts was gone so long Billy was almost dozing when he came back, looking sobered and shaken.

"Big John says it's on the level," Roberts said. "He's been trying to reach me and so has my doc." He looked at Billy. "Big John says that underground supplies are very scarce; we should be sending people to the Hospitals. That straight?"

"That's straight," Billy said.

"No questions asked, no qualifications?"

"Not for that."

"Well, we'd better move." Roberts motioned to his two companions. "We'll take these supplies."

"Okay, but only use them for people that won't go in to a Hospital for anything."

Roberts picked up the brown-wrapped packet and started toward the door. They had not noticed, as they talked, that the place, previously noisy, had become ominously quiet, and the group of Naturists had moved down the bar to stare at them fixedly. Now a huge half-shaven man stepped out in front of Roberts, flanked by two others. "Hold it, Bud," he rumbled. "What's in the package?"

"That's my business," Roberts said.

"And any lousy bladerunner with bootleg medical supplies is my business," the big man said. "Hand it over."

Somewhere a glass crashed on the floor. Roberts moved like lightning, driving straight into the big man's midriff with his fist, then turning aside and bringing a fist down on his neck. As the big man went reeling into

his cohorts, Roberts' companions headed for the door on Roberts' heels. Billy was on his feet now, sidestepping one of the big man's friends and catching another with a sharp chop across the nose as he moved in. Three other Naturists loomed up in the narrow alley between the bar and the door, and a knife appeared from somewhere. His head swimming, Billy deftly tripped the first man, used a bar stool for a pivot to swing past the other two, tripped himself on somebody's leg and landed with a thud by the door. Somebody caught at his arm as he scrambled to his feet, but Billy twisted loose as he crashed through the door, leaving his sweater behind.

Bedlam broke loose in the tavern as people poured out the door after him. Roberts and his friends were scattering in three directions; Billy headed across the street and down a darkened alley, moving as swiftly as he could on his poor foot. There was shouting and he heard footfalls behind him as two of the Naturists took pursuit. Frantically Billy searched for a doorway, a fire escape, a cul-de-sac, anyplace to get out of full view, but nothing presented itself. Then up ahead he saw traffic on a cross street, and a darkened warehouse building with a door hanging loose on its hinges. Ducking between two cars, he scrambled to the far side of the street as his pursuers paused, trying to dodge traffic. Then, almost to the warehouse door, he misstepped and sprawled. Before he could recover himself, the two were on him. He struck out viciously as one tried to drag him to his feet by the collar; the other moved in to pin his arms. Desperate now, Billy fought with fists, elbows, knees and head, wriggling out of one's grip only to be seized by the other. A heavy blow caught the side of his head and he reeled back against the building as the two closed in on him, panting.

Suddenly the three of them were bathed with bright light and a siren screamed as a hovercraft moved down between the buildings, blowing up clouds of dust and

grit, its floodlights streaming downward. The two Naturists broke and ran in opposite directions, cursing. Billy, still groggy from the blow, hauled himself to his feet. Somebody aboard the craft was bawling something from a loudspeaker, but he ducked his head and ran for the warehouse door even as the craft settled down to the street.

Inside the warehouse, darkness enveloped Billy like a blanket. More than anything, then, he wanted darkness and rest. His head was reeling and the strength seemed drained from his legs as he moved ahead into blackness. Then light from the floodlights streamed in the doorway, and he saw a set of rotten stairs ahead. He plunged down them into a dank, wet corridor that smelled like mold. Boxes and crates were stacked to the ceiling, and he hobbled down the hallway, searching for some place to hide. Then he saw a door, wrenched it open, and collapsed to the floor in a small storage room. Creeping to a corner behind a packing case, he huddled, panting, trying to stifle his coughing and to listen at the same time.

There were hesitant footfalls on the floor above, and he heard men's voices. "Jesus, this floor's rotten, Pete. Watch your step there!"

"Okay, I'll cover this end, you check that side. Hold it, there's a stairway going down."

"Give me a light, I'll check down there." Even as he huddled in the room below, it seemed to Billy that there was a familiar ring to that third voice. He heard steps on the stairs, a pause, then footfalls in the corridor, and a flashlight beam struck the half-open door of the side room. "Billy? Billy, are you down there?"

Billy couldn't believe his ears. He struggled to his feet, and his attempt to answer was blocked by a paroxysm of coughing. The steps quickened as he struggled for the door. "Doc! Is that you?"

The flashlight caught him as he emerged, and then he

heard Doc's unmistakable voice, saying "Billy, for God's sake, Billy, what are you doing in this place, you damned fool?"

"I had to . . . I had to get to Roberts—" Billy broke off, coughing again. "I lost my list, must have left it in my room, got a lot more people to contact."

"No, Billy, no more, forget it. I should never have sent you out in the first place. Why didn't you have sense enough to quit?" Billy felt Doc's arm under his, holding him up as his knees buckled, and Doc was still talking, half laughing, half hysterical, as he tried to help him back down the corridor and up the stairs, shouting for help above. And then, for an instant, it hit Billy that it really was Doc there, trying to help him, and there was so much to say, and then the darkness closed in for real and Billy slumped onto the stairs in Doc's arms.

V

Later, Billy recalled, there were a confusion of images and impressions as he had drifted in and out of consciousness. He remembered vaguely being half led, half carried, up the stairs, a hard stretcher under him, then a siren that seemed to go on and on as he drifted back into blackness. Later he became half aware of a cool, white room and white-gowned figures moving about him, talking quietly but incomprehensibly. Still later it was night and a single bed-lamp threw grotesque shad-

ows on a white wall, then darkness again.

There were dreams, gray featureless dreams that terrified him without focusing on any specific reason for terror. Once he was being chased down endless dark corridors, fighting to draw his crippled foot along with him, repeatedly falling as he tried to run, and he jerked wide awake, soaked with sweat and icy cold at the same time. Later on—how much later?—he awoke in darkness, certain that he had to leave, get away from that place, wherever it was, get back to his room and the false transmitter before they raided him and found it. He stumbled weakly out of bed, groping in the darkness for clothes that weren't there, crashing into the wall as he tripped across the cord to a respirator sitting idly by the bedside. And almost immediately there were people there, talking to him calmly, easing him back into the bed again. Still later he was certain that Molly Barret was there speaking very gently to him, urging him to respond, but his voice caught in a throat as dry as leather and he could only croak helplessly, and then when she was gone he could not be certain whether this had been dream or reality.

At length, of course, he woke up with finality, raised up on an elbow and peered around him. He was in a white-painted room in a hospital bed, an oxygen tent still rigged at its head but pushed back out of the way. Pale morning sunlight was coming in a single window, and outside he could see patches of blue sky and the tops of high-rise dwellings. He was caught with a paroxysm of coughing, and suddenly realized that he had been coughing continuously for days, but this time he did not feel so weak or breathless as before. More than anything, he felt a dull inquiring ache in his abdomen, and realized that he was fiercely hungry.

A nurse came in the door, looked at him and smiled. "Well, you're finally awake. That's good news."

"Where am I?"

"Hospital Number Seven Isolation."

"How long have I been here? And where's Doc? I've got work to do."

He started to climb out of bed, but the nurse restrained him. "Wait for Dr. Long to get here. He wanted to be called as soon as you were awake. It's been a long time, more than a week."

Billy sank back in the bed, confused and alarmed. He had no business in a Hospital, he knew that, and the time lapse was staggering. A *week*? Wearily he stared up at the ceiling, dozed a bit, then woke again as a hand touched his forehead. Doc was there and Molly Barret too. "It's about time you were coming to," Doc said. "You had us worried for a while."

"Doc, what am I doing here?"

"A good, ripe lobar pneumonia, mostly. Plus exhaustion and exposure and a few other things. Apparently the Viricidin shots we gave you stopped the flu virus, all right, but not before your resistance was hammered down to the point that you were a sitting duck for pneumonia. As it is, you're lucky to be around. Pneumonia kills people too."

"But what about the epidemic?" Billy said. "There were a dozen people on Parrot's list that I didn't reach, Doc. I've got to get *out* of here—"

"Relax, your part's over with. By now we're just wrapping up."

"But even so, this is the Hospital, isn't it? I'm not qualified to be here. If Health Control finds out—"

"—they couldn't do a thing. It's all out in the open, Billy, they couldn't keep it quiet, and right now Health Control couldn't touch you with a ten-foot pole. You or any other bladerunner. Public opinion wouldn't stand for it—you're the Boy Heroes of the Plague City, and Health Control knows it." He tossed a pile of newspapers on the bed. "Take a look."

Billy blinked at the banner headlines. *ILLEGAL*

MEDICS HEROES IN FLU CRISIS, one paper proclaimed. **INFECTON CONTROLLED, SOURCES SAY. SENATE TO STUDY HEALTH CONTROL POLICIES.** Billy shook his head, incredulous, and looked up at Doc. "Then it really *is* out in the open."

"Wide open. It was a dangerous crisis, and Health Control was completely out of its depth. Things are going to have to change, maybe more swiftly than anybody thought. Nobody can risk such a thing happening again, least of all Health Control."

"But it'll haul the undergrounders out into the open, too."

"Where they ought to be. Where they should have been all along. But in the crunch it was you and the other bladerunners that mobilized the fight in this epidemic. You spread the word and got people in for protection." Doc shrugged. "It isn't all over yet, but the computer projection shows that the epidemic has crested. There'll be fewer and fewer showing up with the meningitis, and fewer and fewer deaths. And you guys can take a lot of credit."

"That's great," Billy said sourly. "But where does it leave me? I'm still sneaking around with a bracelet on my wrist."

"Maybe you'd better look again."

Startled, Billy looked at his wrist. It was bare. Then he saw the transponder lying on the bedside stand, with the muffler net beside it. "I persuaded Health Control to persuade the court that you could probably manage without that," Doc said wryly. "They had to clear it through the Secretary himself, but they saw the light when I pointed out to them how eager the newspapers were to know just how all you bladerunners happened to cooperate so splendidly with the health authorities. Anyway, you're completely legal right now—for once. All you have to do now is get your strength back, and heal up your chest."

From the other side of the bed Molly Barret cleared her throat. "Wasn't there something else you were going to get arranged?"

"What do you mean?" Doc said.

"Seems to me I remember a promise you were tossing around the last time we were all together."

"Oh, that." Doc coughed. "Well, sure, but he can't be undergoing surgery in the shape he's in now. He'll need a couple of months to get up and around, get strong again—"

"Doc, you promised," Molly said hotly. "And doctor or no doctor, you're not going to wiggle out this time, if I have to go to Dr. Durham herself to make you come across!"

"—and the orthopedic surgeon I talked to this morning refused to schedule Billy sooner than the first week in March, if his chest X-ray is clear. So we have a tentative date for March eighth. If you still want it done."

"You mean here? In the Hospital?"

"Right here, and one of the best bone surgeons in the city."

Billy sat looking at his foot for a long moment. "I suppose in a way I'll kind of miss it," he said finally. "But not too much. It's like getting rid of that transponder."

"And while you're waiting," Doc added, "you'll have time to be thinking about what to do with yourself after it's fixed. Lots of things are going to be changing, I think, including a whole new look at the problem of getting health care to people. And if the Senate legislates a new medical program with fewer eugenics controls and better legal health care coverage, we aren't going to need bladerunners any more."

"I suppose not," Billy said. "But what else? It's the only thing I know."

"You can learn," Doc said. "We don't know yet how drastic the changes will be. The robot-training program

is going to be shelved, and a whole new set of Health Control priorities worked out, including more legal care for more people without enforcing the qualification laws. Of course, there'll still be qualification tests for some illnesses, and there may still be a need for underground medicine of some sort, at least for a while. But you don't have to stay there, Billy. You know a lot more about practical medical care right now than most medical students. We may not need bladerunners too much anymore, but we'll need plenty of well-trained, capable medics to help the doctors out. And later on, if you want—well, I have a hunch we're going to be training a whole lot of new doctors soon, too."

A nurse interrupted with a call for Doc. He nodded, and touched Billy's hand. "You think about it," he said. "We'll talk later. We'll have plenty of time to talk."

He left them then, but Molly stayed a while longer, and they talked. "It's going to be strange," Billy said. "I mean, for you and me. Not like the old team at all."

"Oh, I don't know. Maybe not an underground team—but there are other kinds of teams."

"Maybe. But if I'm studying, and you're all tied up with work somewhere else—"

"But Billy, I'm not going anywhere. Before, we never really had a chance to even talk, much less get to know each other. Now at least there can be a chance, if we want it that way." They talked some more, until Billy began to doze. Molly promised to visit again the next day, and then tiptoed from the room. Later, when he awoke, it was nighttime. He eased himself out of bed, supporting himself with the back of a chair, and hobbled over to the window. Before him the whole city spread in a blaze of night lights, the same old city as ever, showing no sign of the grim shadow of death and disaster that had swept over it so recently, yet oddly different now as Billy watched. Pulling the chair up, he sat staring out at the lights, seeing them now as he never had before, as

the implications of Doc's words struck home. *To walk straight and free and never to limp again. To work, someday, as a free and legal member of a great profession, to climb out of the dim underworld he had known for so long. . . .*

Billy sighed, his fingers on the glass. There would be changes, all right. Things would never again be like they were—new work, new demands, new responsibilities, and no returning to times as they had been. Momentarily he felt a pang of regret, a twinge of panic, at the thought of a whole way of life left behind. Like a crippled foot, so familiar and yet so dreadful. Given a choice, a real choice. . . .

Slowly he turned away from the window, walked back to the bed, regret vanishing from his mind. Maybe, he thought, it was merely having a choice that let him see the future not with panic but with eagerness and excitement. Because now, he knew, he really had a choice.

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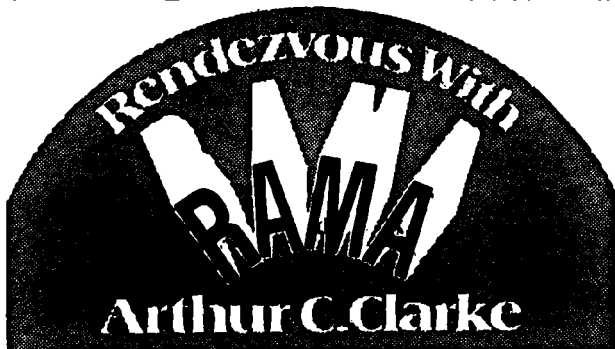
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