

FOREWORD

I had always planned to quit the writing business as soon as that mortgage was paid off. I had never had any literary ambitions, no training for it, no interest in it backed into it by accident and stuck with it to pay off debt, I being always firmly resolved to quit the silly business once I had my chart squared away.

At a meeting of the Mariana Literary Society an amorphous disorganization having as its avowed purpose "to permit young writers to talk out their stories to each other in order to get them off their minds and thereby save themselves the trouble of writing them down" at a gathering of this noble group I was expounding my determination to retire from writing once my bills were paid in a few weeks, during 1940, if the tripe continued to sell.

William A. P. White ("Anthony Boucher") gave me a sour look. "Do you know any retired writers?"

"How could I? All the writers I've ever met are in this room."

"Irrelevant. You know retired school teachers, retired naval officers, retired policemen, retired farmers. Why don't you know at least one retired writer?"

"What are you driving at?"

"Robert, there are no retired writers. There are writers who have stopped selling ... but they have not stopped writing."

I poo-hooped Bill's remarks possibly what he said applied to writers in general ... but I wasn't really a writer; I was just a chap who needed money and happened to discover that pulp writing offered an easy way to grab some without stealing and without honest work. ("Honest work" a euphemism for underpaid bodily exertion, done standing up or on your knees, often in bad weather or other nasty circumstances, and frequently involving shovels, picks, hoes, assembly lines, tractors, and unsympathetic supervisors. It has never appealed to me. Sitting at a typewriter in a nice warm room, with no boss, cannot possibly be described as "honest work.")

"Blowups Happen" sold and I gave a mortgage-burning party. But I did not quit writing at once (24 Feb. 1940) because, while I had the Old Man of the Sea (that damned mortgage) off my back, there were still some other items. I needed a new car; the house needed paint and some repairs; I wanted to make a trip to New York; and it would not hurt to have a couple of hundred extra in the bank as a cushion and I had a dozen-odd stories in file, planned and ready to write.

So I wrote Magic, Incorporated and started east on the proceeds, and wrote "They" and Sixth Column while I was on that trip. The latter was the only story of mine ever influenced to any marked degree by John W. Campbell, Jr. He had in file an unsold story he had written some years earlier. JWC did not show me his manuscript; instead he told me the story line orally and stated that, if I would write it, he would buy it.

He needed a serial; I needed an automobile. I took the brass check.

Writing Sixth Column was a job I sweated over. I had to reslant it to remove racist aspects of the original story line. And I didn't really believe the pseudoscientific rationale of Campbell's three spectrascos I worked especially hard to make it sound realistic.

It worked out all right. The check for the serial, plus 35 in cash, bought me that new car ... and the book editions continue to sell and sell and sell, and have earned more than forty times as much as I was paid for the serial. So it was a financial success ... but I do not consider it to be an artistic success.

While I was back east I told Campbell of my plans to quit writing later that year. He was not pleased as I was then his largest supplier of copy. I finally said, "John, I am not going to write any more stories against deadlines. But I do have a few more stories on tap that I could write. I'll send you a story from time to time ... until the day comes when you bounce one. At that point we're through. Now that I know you personally, having a story rejected by you would be too traumatic."

So I went back to California and sold him "Crooked House" and "Logic of Empire and "Universe" and "Solution Unsatisfactory" and "Methuselah's Children" and "By His Bootstraps" and "Common Sense" and "Goldfish Bowl" and Beyond "This Horizon" and "Waldo" and "The Unpleasant Profession of Jonathan Hoag" which brings us smack up against World War II.

Campbell did bounce one of the above (and I shan't say which one) and I promptly retired put in a new irrigation system built a garden terrace resumed serious photography, *etc.* This went on for about a month when I found that I was beginning to be vaguely ill: poor appetite, loss of weight, insomnia, jittery, absent-minded much like the early symptoms of pulmonary tuberculosis, and I thought, "Damn it, am I going to have still a third attack?"

Campbell dropped me a note and asked why he hadn't heard from me reminded him of our conversation months past. He had rejected one of my stories and that marked my retirement from an occupation that I had never planned to pursue permanently.

He wrote back and asked for another look at the story he had bounced. I sent it to him, he returned it promptly with the recommendation that I take out this comma, speed up the 1st half of page umpteen, delete that adjective fiddle changes that Katie Tarrant would have done if told to.

I sat down at my typewriter to make the suggested changes ... and suddenly realized that I felt good for the first time in weeks.

Bill "Tony Boucher" White had been dead right. Once you get the monkey on your back there is no cure short of the grave. I can leave the typewriter alone for weeks, even months, by going to sea. I can hold off for any necessary time if I am strenuously engaged in some other full-time, worthwhile occupation such as a construction job, a political campaign, or (damn it!) recovering from illness.

But if I simply loaf for more than two or three days, that monkey starts niggling at me. Then nothing short of a few thousand words will soothe my nerves. And as I get older the attacks get worse; it is beginning to take 300,000 words and up to produce that feeling of warm satiation. At that I don't have it in its most virulent form; two of my colleagues are reliably reported not to have missed their daily fix in more than forty years.

The best that can be said for "Solution Unsatisfactory" is that the solution is still unsatisfactory and the dangers are greater than ever. There is little satisfaction in having called the turn forty years ago; being a real-life Cassandra is not happy-making.

In 1903 the Wright brothers flew at Kitty Hawk.

In December, 1938, in Berlin, Dr. Hahn split the uranium atom.

In April, 1943, Dr. Estelle Karst, working under the Federal Emergency Defense Authority, perfected the Karst-Obre technique for producing artificial radioactives.

So American foreign policy had to change.

Had to. Had to. It is very difficult to tuck a bugle call back into a bugle. Pandora's Box is a one-way proposition. You can turn pig into sausage, but not sausage into pig. Broken eggs stay broken. "All the King's horses and all the King's men can't put Humpty together again."

I ought to know I was one of the King's men.

By rights I should not have been. I was not a professional military man when World War II broke out, and when Congress passed the draft law I drew a high number, high enough to keep me out of the army long enough to die of old age.

Not that very many died of old age that generation!

But I was the newly appointed secretary to a freshman congressman; I had been his campaign manager and my former job had left me. By profession, I was a high-school teacher of economics and sociology school boards don't like teachers of social subjects actually to deal with social problems and my contract was not renewed. I jumped at the chance to go to Washington.

My congressman was named Manning. Yes, the Manning, Colonel Clyde C. Manning, U.S. Army retired Mr. Commissioner Manning. What you may not know about him is that he was one of the Army's No. 1 experts in chemical warfare before a leaky heart put him on the shelf. I had picked him, with the help of a group of my political associates, to run against the two-bit chiseler who was the incumbent in our district. We needed a strong liberal candidate and Manning was tailor-made for the job. He had served one term in the grand jury, which cut his political eye teeth, and had stayed active in civic matters thereafter.

Being a retired army officer was a political advantage in vote-getting among the more conservative and well-to-do citizens, and his record was O.K. for the other side of the fence. I'm not primarily concerned with vote-getting; what I liked about him was that, though he was liberal, he was tough-minded, which most liberals aren't. Most liberals believe that water runs downhill, but, praise God, it'll never reach the bottom.

Manning was not like that. He could see a logical necessity and act on it, no matter how unpleasant it might be.

We were in Manning's suite in the House Office Building, taking a little blow from that stormy first session of the Seventy-eighth Congress and trying to catch up on a mountain of correspondence, when the War Department called. Manning answered it himself.

I had to overhear, but then I was his secretary. "Yes," he said, "speaking. Very well, put him on. Oh ... hello, General ... Fine, thanks. Yourself?" Then there was a long silence. Presently, Manning said, "But I can't do that, General, I've got this job to take care of. ... What's that? ... Yes, who is to do my committee work and represent my district? ... I think so." He glanced at his wrist watch. "I'll be right over."

He put down the phone, turned to me, and said, "Get your hat, John. We are going over to the War Department."

"So?" I said, complying.

"Yes," he said with a worried look, "the Chief of Staff thinks I ought to go back to duty." He set off at a brisk walk, with me hanging back to try to force him not to strain his bum heart. "It's impossible, of course." We grabbed a taxi from the stand in front of the office building and headed for the Department.

But it was possible, and Manning agreed to it, after the Chief of Staff presented his case. Manning had to be convinced, for there is no way on earth for anyone, even the President himself, to order a congressman to leave his post, even though he happens to be a member of the military service, too.

The Chief of Staff had anticipated the political difficulty and had been forehanded enough to have already dug up an opposition congressman with whom to pair Manning's vote for the duration of the emergency. This other congressman, the Honorable Joseph T. Brigham, was a reserve officer who wanted to go to duty himself or was willing to; I never found out which. Being from the opposite political party, his vote in the House of Representatives could be permanently paired against Manning's and neither party would lose by the arrangement.

There was talk of leaving me in Washington to handle the political details of Manning's office, but Manning decided against it, judging that his other secretary could do that, and announced that I must go along as his adjutant. The Chief of Staff demurred, but Manning was in a position to insist, and the Chief had to give in.

A chief of staff can get things done in a hurry if he wants to. I was sworn in as a temporary officer before we left the building; before the day was out I was at the bank, signing a note to pay for the sloppy service uniforms the Army had adopted and to buy a dress uniform with a beautiful shiny belt dress outfit which, as it turned out, I was never to need.

We drove over to Maryland the next day and Manning took charge of the Federal nuclear research laboratory, known officially by the hush-hush title of War Department Special Defense Project No. 347. I didn't know a lot about physics and nothing about modern atomic physics, aside from the stuff you read in the Sunday supplements. Later, I picked up a smattering, mostly wrong, I suppose, from associating with the heavyweights with whom the laboratory was staffed.

Colonel Manning had taken an Army p.g. course at Massachusetts Tech and had received a master of science degree for a brilliant thesis on the mathematical theories of atomic structure. That was why the Army had to have him for this job. But that had been some years before; atomic theory had turned several cartwheels in the meantime; he admitted to me that he had to bone like the very devil to try to catch up to the point where he could begin to understand what his highbrow charges were talking about in their reports.

I think he overstated the degree of his ignorance; there was certainly no one else in the United States who could have done the job. It required a man who could direct and suggest research in a highly esoteric field, but who saw the problem from the standpoint of urgent military necessity. Left to themselves, the physicists would have reveled in the intellectual luxury of an unlimited research expense account, but, while they undoubtedly would have made major advances in human knowledge, they might never have developed anything of military usefulness, or the military possibilities of a discovery might be missed for years.

It's like this: It takes a smart dog to hunt birds, but it takes a hunter behind him to keep him from wasting time chasing rabbits. And the hunter needs to know nearly as much as the dog.

No derogatory reference to the scientists is intended by no means! We had all the genius in the field that the United States could produce, men from Chicago, Columbia, Cornell, M.I.T., Cal Tech, Berkeley, every radiation laboratory in the country, as well as a couple of broad-Abos lent to us by the British. And they had every facility that ingenuity could think up and money could build. The five-hundred-ton cyclotron which had originally been intended for the University of California was there, and was already obsolete in the face of the new gadgets these brains had thought up, asked for, and been given. Canada supplied us with all the uranium we asked for tons of the treacherous stuff from Great Bear Lake, up near the Yukon, and the fractional-residues technique of separating uranium isotope 235 from the commoner isotope 238 had already been worked out, by the same team from Chicago that had worked up the earlier expensive mass spectrograph method.

Someone in the United States government had realized the terrific potentialities of uranium 235 quite early and, as far back as the summer of 1940, had rounded up every atomic research man in the country and had sworn them to silence. Atomic power, if ever developed, was planned to be a government monopoly, at least till the war was over. It might turn out to be the most incredibly powerful explosive ever dreamed of, and it might be the source of equally incredible power. In any case, with Hitler talking about secret weapons and shouting hoarse insults at democracies, the government planned to keep any new discoveries very close to the vest.

Hitler had lost the advantage of a first crack at the secret of uranium through not taking precautions. Dr. Hahn, the first man to break open the uranium atom, was a German. But one of his laboratory assistants had fled Germany to escape a pogrom. She came to this country, and told us about it.

We were searching, there in the laboratory in Maryland, for a way to use U235 in a controlled explosion. We had a vision of a one-ton bomb that would be a whole air raid in itself, a single explosion that would flatten out an entire industrial center. Dr. Ridpath, of Continental Tech, claimed that he could build such a bomb, but that he could not guarantee that it would not explode as soon as it was loaded and as for the force of the explosion well, he did not believe his own figures; they ran out to too many ciphers.

The problem was, strangely enough, to find an explosive which would be weak enough to blow up only one county at a time, and stable enough to blow up only on request. If we could devise a really practical rocket fuel at the same time, one capable of driving a war rocket at a thousand miles an hour, or more, then we would be in a position to make most anybody say "unde" to Uncle Sam.

We fiddled around with it all the rest of 1943 and well into 1944. The war in Europe and the troubles in Asia dragged on. After Italy folded up, England was able to release enough ships from her Mediterranean fleet to ease the blockade of the British Isles. With the help of the planes we could now send her regularly and with the additional over-age destroyers we let her have, England hung on somehow, digging in and taking more and more of her essential defense industries underground. Russia shifted her weight from side to side as usual, apparently with the policy of preventing either side from getting a sufficient advantage to bring the war to a successful conclusion. People were beginning to speak of "permanent war."

I was killing time in the administrative office, trying to improve my typing a lot of Manning's reports had to be typed by me personally when the orderly on duty stepped in and announced Dr. Karst. I flipped the interoffice communicator. "Dr. Karst is here, chief. Can you see her?"

"Yes," he answered, through his end.

I told the orderly to show her in.

Estelle Karst was quite a remarkable old girl and, I suppose, the first woman ever to hold a commission in the Corps of Engineers. She was an M.D. as well as an Sc.D. and reminded me of the teacher I had had in fourth grade. I guess that was why I always stood up instinctively when she came into the room I was afraid she might look at me and sniff. It couldn't have been her rank; we didn't bother much with rank.

She was dressed in white coveralls and a shop apron and had simply thrown a hooded cape over herself to come through the snow. I said, "Good morning, ma'am," and led her into Manning's office.

The Colonel greeted her with the urbanity that had made him such a success with women's clubs, seated her, and offered her a cigarette.

"I'm glad to see you, Major," he said. "I've been intending to drop around to your shop."

I knew what he was getting at; Dr. Karst's work had been primarily physiomedical; he wanted her to change the direction of her research to something more productive in a military sense.

"Don't call me 'major,'" she said tartly.

"Sorry, Doctor"

"I came on business, and must get right back. And I presume you are a busy man, too. Colonel Manning, I need some help."

"That's what we are here for."

Good. I've run into some snags in my research. I think that one of the men in Dr. Ridpath's department could help me, but Dr. Ridpath doesn't seem disposed to be cooperative."

"So? Well, I hardly like to go over the head of a departmental chief, but tell me about it; perhaps we can arrange it. Whom do you want?"

"I need Dr. Obre."

"The spectroscopist. Hm-m-m. I can understand Dr. Ridpath's reluctance, Dr. Karst, and I'm disposed to agree with him. After all, the high-explosives research is really our main show around here."

She bristled and I thought she was going to make him stay in after school at the very least. "Colonel Manning, do you realize the importance of artificial radioactives to modern medicine?"

"Why, I believe I do. Nevertheless, Doctor, our primary mission is to perfect a weapon which will serve as a safeguard to the whole country in time of war"

She sniffed and went into action. "Weaponsfiddlesticks! Isn't there a medical corps in the Army? Isn't it more important to know how to heal men than to know how to blow them to bits? Colonel Manning, you're not a fit man to have charge of this project! You're a . . . you're a, a warmonger, that's what you are!"

I felt my ears turning red, but Manning never budged. He could have raised Cain with her, confined her to her quarters, maybe even have court-martialed her, but Manning isn't like that. He told me once that every time a man is court-martialed, it is a sure sign that some senior officer hasn't measured up to his job.

"I am sorry you feel that way, Doctor," he said mildly, "and I agree that my technical knowledge isn't what it might be. And, believe me, I do wish that healing were all we had to worry about. In any case, I have not refused your request. Let's walk over to your laboratory and see what the problem is. Likely there is some arrangement that can be made which will satisfy everybody."

He was already up and getting out his greatcoat. Her set mouth relaxed a trifle and she answered, "Very well. I'm sorry I spoke as I did."

"Not at all," he replied. "These are worrying times. Come along, John."

I trailed after them, stopping in the outer office to get my own coat and to stuff my notebook in a pocket.

By the time we had trudged through mushy snow the eighth of a mile to her lab they were talking about gardening!

Manning acknowledged the sentry's challenge with a wave of his hand and we entered the building. He started casually on into the inner lab, but Karst stopped him. "Armor first, Colonel."

We had trouble finding overshoes that would fit over Manning's boots, which he persisted in wearing, despite the new uniform regulations, and he wanted to omit the foot protection, but Karst would not hear of it. She called in a couple of her assistants who made jury-rigged moccasins out of some soft-lead sheeting.

The helmets were different from those used in the explosives lab, being fitted with inhalers. "What's this?" inquired Manning.

"Radioactive dust guard," she said. "It's absolutely essential."

We threaded a lead-lined meander and arrived at the workroom door which she opened by combination. I blinked at the sudden bright illumination and noticed the air was filled with little shiny motes.

"Hm-m-mit is dusty," agreed Manning. "Isn't there some way of controlling that?" His voice sounded muffled from behind the dust mask.

"The last stage has to be exposed to air," explained Karst. "The hood gets most of it. We could control it, but it would mean a quite expensive new installation."

"No trouble about that. We're not on a budget, you know. It must be very annoying to have to work in a mask like this."

"It is," acknowledged Karst. "The kind of gear it would take would enable us to work without body armor, too. That would be a comfort."

I suddenly had a picture of the kind of thing these researchers put up with. I am a fair-sized man, yet I found that armor heavy to carry around. Estelle Karst was a small woman, yet she was willing to work maybe fourteen hours, day after day, in an outfit which was about as comfortable as a diving suit. But she had not complained.

Not all the heroes are in the headlines. These radiation experts not only ran the chance of cancer and nasty radioaction burns, but the men stood a chance of damaging their germ plasm and then having their wives present them with something horrid in the way of offspring no chin, for example, and long hairy ears. Nevertheless, they went right ahead and never seemed to get irritated unless something held up their work.

Dr. Karst was past the age when she would be likely to be concerned personally about progeny, but the principle applies.

I wandered around, looking at the unlikely apparatus she used to get her results, fascinated as always by my failure to recognize much that reminded me of the physics laboratory I had known when I was an undergraduate, and being careful not to touch anything. Karst started explaining to Manning what she was doing and why, but I knew that it was useless for me to try to follow that technical stuff. If Manning wanted notes, he would dictate them. My attention was caught by a big boxlike contraption in one corner of the room. It had a hopperlike gadget on one side and I could hear a sound from it like the whirring of a fan with a background of running water. It intrigued me.

I moved back to the neighborhood of Dr. Karst and the Colonel and heard her saying, "The problem amounts to this, Colonel: I am getting a much more highly radioactive end product than I want, but there is considerable variation in the half-life of otherwise equivalent samples. That suggests to me that I am using a mixture of isotopes, but I haven't been able to prove it. And frankly, I do not know enough about that end of the field to be sure of sufficient refinement in my methods. I need Dr. Obre's help on that."

I think those were her words, but I may not be doing her justice, not being a physicist. I understood the part about "half-life." All radioactive materials keep right on radiating until they turn into something else, which takes theoretically forever. As a matter of practice their periods, or "lives," are described in terms of how long it takes the original radiation to drop to one-half strength. That time is called a "half-life" and each radioactive isotope of an element has its own specific characteristic half-lifetime.

One of the staff I forget which one told me once that any form of matter can be considered as radioactive in some degree; it's a question of intensity and period, or half-life.

"I'll talk to Dr. Ridpath," Manning answered her, "and see what can be arranged. In the meantime you might draw up plans for what you want to reequip your laboratory."

"Thank you, Colonel."

I could see that Manning was about ready to leave, having pacified her; I was still curious about the big box that gave out the odd noises.

"May I ask what that is, Doctor?"

"Oh, that? That's an air conditioner."

"Odd-looking one. I've never seen one like it."

"It's not to condition the air of this room. It's to remove the radioactive dust before the exhaust air goes outdoors. We wash the dust out of the foul air."

"Where does the water go?"

"Down the drain. Out into the bay eventually, I suppose."

I tried to snap my fingers, which was impossible because of the lead mittens. "That accounts for it, Colonel!"

"Accounts for what?"

"Accounts for those accusing notes we've been getting from the Bureau of Fisheries. This poisonous dust is being carried out into Chesapeake Bay and is killing the fish."

Manning turned to Karst. "Do you think that possible, Doctor?"

I could see her brows draw together through the window in her helmet. "I hadn't thought about it," she admitted. "I'd have to do some figuring on the possible concentrations before I could give you a definite answer. But it is possible yes. However," she added anxiously, "it would be simple enough to divert this drain to a sink hole of some sort."

Him-m-myes." He did not say anything for some minutes, simply stood there, looking at the box.

Presently he said, "This dust is pretty lethal?"

"Quite lethal, Colonel." There was another long silence.

At last I gathered he had made up his mind about something for he said decisively, "I am going to see to it that you get Obre's assistance, Doctor"

"Oh, good!"

"but I want you to help me in return. I am very much interested in this research of yours, but I want it carried on with a little broader scope. I want you to investigate for maxima both in period and intensity as well as for minima. I want you to drop the strictly utilitarian approach and make an exhaustive research along lines which we will work out in greater detail later."

She started to say something but he cut in ahead of her. "A really thorough program of research should prove more helpful in the long run to your original purpose than a more narrow one. And I shall make it my business to expedite every possible facility for such a research. I think we may turn up a number of interesting things."

He left immediately, giving her no time to discuss it. He did not seem to want to talk on the way back and I held my peace. I think he had already gotten a glimmering of the bold and drastic strategy this was to lead to, but even Manning could not have thought out that early the inescapable consequences of a few dead fish otherwise he would never have ordered the research.

No, I don't really believe that. He would have gone right ahead, knowing that if he did not do it, someone else would. He would have accepted the responsibility while bitterly aware of its weight.

1944 wore along with no great excitement on the surface. Karst got her new laboratory equipment and so much additional help that her department rapidly became the largest on the grounds. The explosives research was suspended after a conference between Manning and Ridpath, of which I heard only the end, but the meat of it was that there existed not even a remote possibility at that time of utilizing U235 as an explosive. As a source of power, yes, sometime in the distant future when there had been more opportunity to deal with the extremely ticklish problem of controlling the nuclear reaction. Even then it seemed likely that it would not be a source of power in prime movers such as rocket motors or mobiles, but would be used in vast power plants at least as large as the Boulder Dam installation.

After that Ridpath became a sort of co-chairman of Karst's department and the equipment formerly used by the explosives department was adapted or replaced to carry on research on the deadly artificial radioactives. Manning arranged a division of labor and Karst stuck to her original problem of developing techniques for tailor-making radioactives. I think she was perfectly happy, sticking with a one-track mind to the problem at hand. I don't know to this day whether or not Manning and Ridpath ever saw fit to discuss with her what they intended to do.

As a matter of fact, I was too busy myself to think much about it. The general elections were coming up and I was determined that Manning should have a constituency to return to, when the emergency was over. He was not much interested, but agreed to let his name be filed as a candidate for reelection. I was trying to work up a campaign by remote control and cursing because I could not be in the field to deal with the thousand and one emergencies as they arose.

I did the next best thing and had a private line installed to permit the campaign chairman to reach me easily. I don't think I violated the Hatch Act, but I guess I stretched it a little. Anyhow, it turned out all right; Manning was elected as were several other members of the citizen-military that year. An attempt was made to smear him by claiming that he was taking two salaries for one job, but we squelched that with a pamphlet entitled "For Shame!" which explained that he got one salary for two jobs. That's the Federal law in such cases and people are entitled to know it.

It was just before Christmas that Manning first admitted to me how much the implications of the Karst-Obre process were preying on his mind. He called me into his office over some inconsequential matter, then did not let me go. I saw that he wanted to talk.

"How much of the K-O dust do we now have on hand?" he asked suddenly.

"Just short of ten thousand units," I replied. "I can look up the exact figures in half a moment." A unit would take care of a thousand men, at normal dispersion. He knew the figure as well as I did, and I knew he was stalling.

We had shifted almost imperceptibly from research to manufacture, entirely on Manning's initiative and authority. Manning had never made a specific report to the Department about it, unless he had done so orally to the Chief of Staff.

"Never mind," he answered to my suggestion, then added, "Did you see those horses?"

"Yes," I said briefly.

I did not want to talk about it. I like horses. We had requisitioned six broken-down old nags, ready for the bone yard, and had used them experimentally. We knew now what the dust would do. After they had died, any part of their carcasses would register on a photographic plate and tissue from the apices of their lungs and from the bronchia glowed with a light of its own.

Manning stood at the window, staring out at the dreary Maryland winter for a minute or two before replying, "John, I wish that radioactivity had never been discovered. Do you realize what that devilish stuff amounts to?"

"Well," I said, "it's a weapon, about like poison gas maybe more efficient."

"Rats!" he said, and for a moment I thought he was annoyed with me personally. "That's about like comparing a sixteen-inch gun with a bow and arrow. We've got here the first weapon the world has ever seen against which there is no defense, none whatsoever. It's death itself, C.O.D."

"Have you seen Ridpath's report?" he went on.

I had not. Ridpath had taken to delivering his reports by hand to Manning personally.

"Well," he said, "ever since we started production I've had all the talent we could spare working on the problem of a defense against the dust. Ridpath tells me and I agree with him that there is no means whatsoever to combat the stuff, once it's used."

"How about armor," I asked, "and protective clothing?"

"Sure, sure," he agreed irritably, "provided you never take it off to eat, or to drink or for any purpose whatever, until the radioaction has ceased, or you are out of the danger zone. That is all right for laboratory work; I'm talking about war."

I considered the matter. "I still don't see what you are fretting about, Colonel. If the stuff is as good as you say it is, you've done just exactly what you set out to do develop a weapon which would give the United States protection against aggression."

He swung around. "John, there are times when I think you are downright stupid!"

I said nothing. I knew him and I knew how to discount his moods. The fact that he permitted me to see his feelings is the finest compliment I have ever had.

"Look at it this way," he went on more patiently, "this dust, as a weapon, is not just simply sufficient to safeguard the United States, it amounts to a loaded gun held at the head of every man, woman, and child on the globe!"

"Well," I answered, "what of that? It's our secret, and we've got the upper hand. The United States can put a stop to this war, and any other war. We can declare a Pax Americana, and enforce it."

"Hm-m-m! wish it were that easy. But it won't remain our secret; you can count on that. It doesn't matter how successfully we guard it; all that anyone needs is the hint given by the dust itself and then it is just a matter of time until some other nation develops a technique to produce it. You can't stop brains from working, John; the reinvention of the method is a mathematical certainty, once they know what it is they are looking for. And uranium is a common enough substance, widely distributed over the globe don't forget that!"

"It's like this: Once the secret is out and it will be out if we ever use the stuff! the whole world will be comparable to a room full of men, each armed with a loaded .45. They can't get out of the room and each one is dependent on the good will of every other one to stay alive. All offense and no defense. See what I mean?"

thought about it, but I still didn't guess at the difficulties. It seemed to me that a peace over us was the only way out, with precautions taken to see that we controlled the sources of uranium. I had the usual American subconscious conviction that our country would never use power in sheer aggression. Later, I thought about the Mexican War and the Spanish-American War and some of the things we did in Central America, and I was not so sure

It was a couple of weeks later, shortly after inauguration day, that Manning told me to get the Chief of Staff's office on the telephone. I heard only the tail end of the conversation. "No, General, I won't," Manning was saying. "I won't discuss it with you, or the Secretary, either. This is a matter the Commander in Chief is going to have to decide in the long run. If he turns it down, it is imperative that no one else ever knows about it. That's my considered opinion.... What's that? ... I took this job under the condition that I was to have a free hand. You've got to give me a little leeway this time.... Don't go brass hat on me. I knew you when you were a plebe.... O.K., O.K., sorry.... If the Secretary of War won't listen to reason, you tell him I'll be in my seat in the House of Representatives tomorrow, and that I'll get the favor I want from the majority leader.... All right. Good-bye."

Washington rang up again about an hour later. It was the Secretary of War. This time Manning listened more than he talked. Toward the end, he said, "All I want is thirty minutes alone with the President. If nothing comes of it, no harm has been done. If I convince him, then you will know all about it.... No, sir, I did not mean that you would avoid responsibility. I intended to be helpful.... Fine! Thank you, Mr. Secretary."

The White House rang up later in the day and set a time.

We drove down to the District the next day through a nasty cold rain that threatened to turn to sleet. The usual congestion in Washington was made worse by the weather; it very nearly caused us to be late in arriving. I could hear Manning swearing under his breath all the way down Rhode Island Avenue. But we were dropped at the west wing entrance to the White House with two minutes to spare. Manning was ushered into the Oval Office almost at once and I was left cooling my heels and trying to get comfortable in civilian clothes. After so many months of uniform they itched in the wrong places.

The thirty minutes went by.

The President's reception secretary went in, and came out very promptly indeed. He stepped on out into the outer reception room and I heard something that began with, "I'm sorry, Senator, but" He came back in, made a penciled notation, and passed it out to an usher.

Two more hours went by.

Manning appeared at the door at last and the secretary looked relieved. But he did not come out, saying instead, "Come in, John. The President wants to take a look at you."

I fell over my feet getting up.

Manning said, "Mr. President, this is Captain DeFries." The President nodded, and I bowed, unable to say anything. He was standing on the hearth rug, his fine head turned toward us, and looking just like his pictures but it seemed strange for the President of the United States not to be a tall man.

I had never seen him before, though, of course, I knew something of his record the two years he had been in the Senate and while he was Mayor before that.

The President said, "Sit down, DeFries. Care to smoke?" Then to Manning, "You think he can do it?"

"I think he'll have to. It's Hobson's choice."

"And you are sure of him?"

"He was my campaign manager."

"I see."

The President said nothing more for a while and God knows I didn't! though I was bursting to know what they were talking about. He commenced again with, "Colonel Manning, I intend to follow the procedure you have suggested, with the changes we discussed. But I will be down tomorrow to see for myself that the dust will do what you say it will. Can you prepare a demonstration?"

"Yes, Mr. President,"

"Very well, we will use Captain DeFries unless I think of a better procedure." I thought for a moment that they planned to use me for a guinea pig! But he turned to me and continued, "Captain, I expect to send you to England as my representative."

I gulped. "Yes, Mr. President." And that is every word I had to say in calling on the President of the United States.

After that, Manning had to tell me a lot of things he had on his mind. I am going to try to relate them as carefully as possible, even at the risk of being dull and obvious and of repeating things that are common knowledge.

We had a weapon that could not be stopped. Any type of K-O dust scattered over an area rendered that area uninhabitable for a length of time that depended on the half-life of the radioactivity.

Period. Full stop.

Once an area was dusted there was nothing that could be done about it until the radioactivity had fallen off to the point where it was no longer harmful. The dust could not be cleaned out; it was everywhere. There was no possible way to counteract it: burn it, combine it chemically; the radioactive isotope was still there, still radioactive, still deadly. Once used on a stretch of land, for a predetermined length of time that piece of earth would not tolerate life.

It was extremely simple to use. No complicated bomb-sights were needed, no care need be taken to hit "military objectives." Take it aloft in any sort of aircraft, attain a position more or less over the area you wish to sterilize, and drop the stuff. Those on the ground in the contaminated area are dead men, dead in an hour, a day, a week, a month, depending on the degree of the infection but dead.

Manning told me that he had once seriously considered, in the middle of the night, recommending that every single person, including himself, who knew the Karst-Obre technique be put to death, in the interests of all civilization. But he had realized the next day that it had been sheer funk; the technique was certain in time to be rediscovered by someone else.

Furthermore, it would not do to wait, to refrain from using the grisly power, until someone else perfected it and used it. The only possible chance to keep the world from being turned into one huge morgue was for us to use the power first and drastically get the upper hand and keep it.

We were not at war, legally, yet we had been in the war up to our necks with our weight on the side of democracy since 1940. Manning had proposed to the President that we turn a supply of the dust over to Great Britain, under conditions we specified, and enable them thereby to force a peace. But the terms of the peace would be dictated by the United States for we were not turning over the secret.

After that, the Pax Americana.

The United States was having power thrust on it, willy-nilly. We had to accept it and enforce a worldwide peace, ruthlessly and drastically, or it would be seized by some other nation. There could not be co-equals in the possession of this weapon. The factor of time predominated.

I was selected to handle the details in England because Manning insisted, and the President agreed with him, that every person technically acquainted with the Karst-Obre process should remain on the laboratory reservation in what amounted to protective custody imprisonment. That included Manning himself. I could go because I did not have the secret; I could not even have acquired it without years of schooling and what I did not know I could not tell, even under, well, drugs. We were determined to keep the secret as long as we could to consolidate the Pax; we did not distrust our English cousins, but they were Britishers, with a first loyalty to the British Empire. No need to tempt them.

I was picked because I understood the background if not the science, and because Manning trusted me. I don't know why the President trusted me, too, but then my job was not complicated.

We took off from the new field outside Baltimore on a cold, raw afternoon which matched my own feelings. I had an all-gone feeling in my stomach, a runny nose, and, buttoned inside my clothes, papers appointing me a special agent of the President of the United States. They were odd papers, papers without precedent; they did not simply give me the usual diplomatic immunity; they made my person very nearly as sacred as that of the President himself.

At Nova Scotia we touched ground to refuel, the F.B.I. men left us, we took off again, and the Canadian fighters took their stations around us. All the dust we were sending was in my plane; if the President's representative were shot down, the dust would go to the bottom with him.

No need to tell of the crossing. I was airsick and miserable, in spite of the steadiness of the new six-engined jobs. I felt like a hangman on the way to an execution, and wished to God that I were a boy again, with nothing more momentous than a debate contest, or a track meet, to worry me.

There was some fighting around us as we neared Scotland, I know, but I could not see it, the cabin being shuttered. Our pilot-captain ignored it and brought his ship down on a totally dark field, using a beam, I suppose, though I did not know nor care. I would have welcomed a crash. Then the lights outside went on and I saw that we had come to rest in an underground hangar.

I stayed in the ship. The Commandant came to see me to his quarters as his guest. I shook my head. "I stay here," I said. "Orders. You are to treat this ship as United States soil, you know."

He seemed miffed, but compromised by having dinner served for both of us in my ship.

There was a really embarrassing situation the next day. I was commanded to appear for a Royal audience. But I had my instructions and I stuck to them. I was sitting on that cargo of dust until the President told me what to do with it. Late in the day I was called on by a member of Parliament nobody admitted out loud that it was the Prime Minister and a Mr. Windsor. The MP. did most of the talking and I answered his questions. My other guest said very little and spoke slowly with some difficulty. But I got a very favorable impression of him. He seemed to be a man who was carrying a load beyond human strength and carrying it heroically.

There followed the longest period in my life. It was actually only a little longer than a week, but every minute of it had that split-second intensity of imminent disaster that comes just before a car crash. The President was using the time to try to avert the need to use the dust. He had two face-to-face television conferences with the new Fuehrer. The President spoke German fluently, which should have helped. He spoke three times to the warring peoples themselves, but it is doubtful if very many on the Continent were able to listen, the police regulations there being what they were.

The Ambassador from the Reich was given a special demonstration of the effect of the dust. He was flown out over a deserted stretch of Western prairie and allowed to see what a single dusting would do to a herd of steers. It should have impressed him and I think that it did nobody could ignore a visual demonstration! but what report he made to his leader we never knew.

The British Isles were visited repeatedly during the wait by bombing attacks as heavy as any of the war. I was safe enough but I heard about them, and I could see the effect on the morale of the officers with whom I associated. Not that it frightened them it made them coldly angry. The raids were not directed primarily at dockyards or factories, but were ruthless destruction of anything, particularly villages.

"I don't see what you chaps are waiting for," a flight commander complained to me. "What the Jerries need is a dose of their own shrecklichkeit, a lesson in their own Aryan culture."

I shook my head. "We'll have to do it our own way."

He dropped the matter, but I knew how he and his brother officers felt. They had a standing toast, as sacred as the toast to the King: "Remember Coventry!"

Our President had stipulated that the R.A.F. was not to bomb during the period of negotiation, but their bombers were busy nevertheless. The continent was showered, night after night, with bales of leaflets, prepared by our own propaganda agents. The first of these called on the people of the Reich to stop a useless war and promised that the terms of peace would not be vindictive. The second rain of pamphlets showed photographs of that herd of steers. The third was a simple direct warning to get out of cities and to stay out.

As Manning put it, we were calling "Halt!" three times before firing. I do not think that he or the President expected it to work, but we were morally obligated to try.

The Britishers had installed for me a televisor, of the Simonds-Yarley nonintercept type, the sort whereby the receiver must "trigger" the transmitter in order for the transmission to take place at all. It made assurance of privacy in diplomatic rapid communication for the first time in history, and was a real help in the crisis. I had brought along my own technician, one of the F.B.I.'s new corps of specialists, to handle the scrambler and the trigger.

He called to me one afternoon. "Washington signaling."

I climbed tiredly out of the cabin and down to the booth on the hangar floor, wondering if it were another false alarm.

It was the President. His lips were white. "Carry out your basic instructions, Mr. DeFries."

"Yes, Mr. President!"

The details had been worked out in advance and, once I had accepted a receipt and token payment from the Commandant for the dust, my duties were finished. But, at our instance, the British had invited military observers from every independent nation and from the several provisional governments of occupied nations. The United States Ambassador designated me as one at the request of Manning.

Our task group was thirteen bombers. One such bomber could have carried all the dust needed, but it was split up to insure most of it, at least, reaching its destination. I had fetched forty percent more dust than Ridpath calculated would be needed for the mission and my last job was to see to it that every canister actually went on board a plane of the flight. The extremely small weight of dust used was emphasized to each of the military observers.

We took off just at dark, climbed to twenty-five thousand feet, refueled in the air, and climbed again. Our escort was waiting for us, having refueled thirty minutes before us. The flight split into thirteen groups, and cut the thin air for middle Europe. The bombers we rode had been stripped and hiked up to permit the utmost maximum of speed and altitude.

Elsewhere in England, other flights had taken off shortly before us to act as a diversion. Their destinations were every part of Germany; it was the intention to create such confusion in the air above the Reich that our few planes actually engaged in the serious work might well escape attention entirely, flying so high in the stratosphere.

The thirteen dust carriers approached Berlin from different directions, planning to cross Berlin as if following the spokes of a wheel. The night was appreciably clear and we had a low moon to help us. Berlin is not a hard city to locate, since it has the largest square-mile area of any modern city and is located on a broad flat alluvial plain. I could make out the River Spree as we approached it, and the Havel. The city was blacked out, but a city makes a different sort of black from open country. Parachute flares hung over the city in many places, showing that the R.A.F. had been busy before we got there and the AA batteries on the ground helped to pick out the city.

There was fighting below us, but not within fifteen thousand feet of our altitude as nearly as I could judge.

The pilot reported to the captain, "On line of bearing!" The chap working the absolute altimeter steadily fed his data into the fuse pots of the canister. The canisters were equipped with a light charge of black powder, sufficient to explode them and scatter the dust at a time after release predetermined by the fuse pot setting. The method used was no more than an efficient expedient. The dust would have been almost as effective had it simply been dumped out in paper bags, although not as well distributed.

The Captain hung over the navigator's board, a slight frown on his thin fallow face. "Ready one!" reported the bomber.

"Release!"

"Ready two!"

The Captain studied his wristwatch. "Release!"

"Ready three!"

"Release!"

When the last of our ten little packages was out of the ship we turned tail and ran for home.

No arrangements had been made for me to get home; nobody had thought about it. But it was the one thing I wanted to do. I did not feel badly; I did not feel much of anything. I felt like a man who has at last screwed up his courage and undergone a serious operation; it's over now, he is still numb from shock but his mind is relaxed. But I wanted to go home.

The British Commandant was quite decent about it; he serviced and manned my ship at once and gave me an escort for the offshore war zone. It was an expensive way to send one man home, but who cared? We had just expended some millions of lives in a desperate attempt to end the war; what was a money expense? He gave the necessary orders absentmindedly.

took a double dose of nembutal and woke up in Canada. I tried to get the news while the plane was being serviced, but there was not much to be had. The government of the Reich had issued one official news bulletin shortly after the raid, sneering at the much vaunted "secret weapon" of the British and stating that a major air attack had been made on Berlin and several other cities, but that the raiders had been driven off with only minor damage. The current Lord Haw-Haw started one of his sarcastic speeches but was unable to continue it. The announcer said that he had been seized with a heart attack, and substituted some recordings of patriotic music. The station cut off in the middle of the "Horst Wessel" song. After that there was silence.

I managed to promote an Army car and a driver at the Baltimore field which made short work of the Annapolis speedway. We almost overran the turnoff to the laboratory.

Manning was in his office. He looked up as I came in, said, "Hello, John," in a dispirited voice, and dropped his eyes again to the blotter pad. He went back to drawing doodles.

I looked him over and realized for the first time that the chief was an old man. His face was gray and flabby, deep furrows framed his mouth in a triangle. His clothes did not fit.

I went up to him and put a hand on his shoulder. "Don't take it so hard, chief. It's not your fault. We gave them all the warning in the world."

He looked up again. "Estelle Karst suicided this morning."

Anybody could have anticipated it, but nobody did. And somehow I felt harder hit by her death than by the death of all those strangers in Berlin. "How did she do it?" I asked.

"Dust. She went into the canning room, and took off her armor."

I could picture her head held high, eyes snapping, and that set look on her mouth which she got when people did something she disapproved of. One little old woman whose lifetime work had been turned against her.

"I wish," Manning added slowly, "that I could explain to her why we had to do it."

We buried her in a lead-lined coffin, then Manning and I went on to Washington.

While we were there, we saw the motion pictures that had been made of the death of Berlin. You have not seen them; they never were made public, but they were of great use in convincing the other nations of the world that peace was a good idea. I saw them when Congress did, being allowed in because I was Manning's assistant.

They had been made by a pair of R.A.F. pilots, who had dodged the Luftwaffe to get them. The first shots showed some of the main streets the morning after the raid. There was not much to see that would show up in telephoto shots, just busy and crowded streets, but if you looked closely you could see that there had been an excessive number of automobile accidents.

The second day showed the attempt to evacuate. The inner squares of the city were practically deserted save for bodies and wrecked cars, but the streets leading out of town were boiling with people, mostly on foot, for the trams were out of service. The pitiful creatures were fleeing, not knowing that death was already lodged inside them. The plane swooped down at one point and the cinematographer had his telephoto lens pointed directly into the face of a young woman for several seconds. She stared back at it with a look too woebegone to forget, then stumbled and fell.

She may have been trampled. I hope so. One of those six horses had looked like that when the stuff was beginning to hit his vitals.

The last sequence showed Berlin and the roads around it a week after the raid. The city was dead; there was not a man, a woman, a child nor cats, nor dogs, not even a pigeon. Bodies were all around, but they were safe from rats. There were no rats.

The roads around Berlin were quiet now. Scattered carelessly on shoulders and in ditches, and to a lesser extent on the pavement itself, like coal shaken off a train, were the quiet heaps that had been the citizens of the capital of the Reich. There is no use in talking about it.

But, so far as I am concerned, I left what soul I had in that projection room and I have not had one since.

The two pilots who made the pictures eventually died systemic, cumulative infection, dust in the air over Berlin. With precautions it need not have happened, but the English did not believe, as yet, that our extreme precautions were necessary.

The Reich took about a week to fold up. It might have taken longer if the new Fuehrer had not gone to Berlin the day after the raid to "prove" that the British boasts had been hollow. There is no need to recount the provisional governments that Germany had in the following several months; the only one we are concerned with is the so-called restored monarchy which used a cousin of the old Kaiser as a symbol, the one that sued for peace.

Then the trouble started.

When the Prime Minister announced the terms of the private agreement he had had with our President, he was met with a silence that was broken only by cries of "Shame! Shame! Resign!" I suppose it was inevitable; the Commons reflected the spirit of a people who had been unmercifully punished for four years. They were in a mood to enforce a peace that would have made the Versailles Treaty look like the Beatitudes.

The vote of no confidence left the Prime Minister no choice. Forty-eight hours later the King made a speech from the throne that violated all constitutional precedent, for it had not been written by a Prime Minister. In this greatest crisis in his reign, his voice was clear and unlabored; it sold the idea to England and a national coalition government was formed.

I don't know whether we would have dusted London to enforce our terms or not; Manning thinks we would have done so. I suppose it depended on the character of the President of the United States, and there is no way of knowing about that since we did not have to do it.

The United States, and in particular the President of the United States, was confronted by two inescapable problems. First, we had to consolidate our position at once, use our temporary advantage of an overwhelmingly powerful weapon to insure that such a weapon would not be turned on us. Second, some means had to be worked out to stabilize American foreign policy so that it could handle the tremendous power we had suddenly had thrust upon us.

The second was by far the most difficult and serious. If we were to establish a reasonably permanent peace say a century or so through a monopoly on a weapon so powerful that no one dare fight us, it was imperative that the policy under which we acted be more lasting than passing political administrations. But more of that later.

The first problem had to be attended to at once, time was the heart of it. The emergency lay in the very simplicity of the weapon. It required nothing but aircraft to scatter it and the dust itself, which was easily and quickly made by anyone possessing the secret of the Karst-Obre process and having access to a small supply of uranium-bearing ore.

But the Karst-Obre process was simple and might be independently developed at any time. Manning reported to the President that it was Ridpath's opinion, concurred in by Manning, that the staff of any modern radiation laboratory should be able to work out an equivalent technique in six weeks, working from the hint given by the events in Berlin alone, and should then be able to produce enough dust to cause major destruction in another six weeks.

Ninety days, ninety days provided they started from scratch and were not already halfway to their goal. Less than ninety days perhaps no time at all.

By this time Manning was an unofficial member of the Cabinet; "Secretary of Dust," the President called him in one of his rare jovial moods. As for me, well, I attended Cabinet meetings, too. As the only layman who had seen the whole show from beginning to end, the President wanted me there.

I am an ordinary sort of man who, by a concatenation of improbabilities, found himself shoved into the councils of the rulers. But I found that the rulers were ordinary men, too, and frequently as bewildered as I was.

But Manning was no ordinary man. In him ordinary hard sense had been raised to the level of genius. Oh, yes, I know that it is popular to blame everything on him and to call him everything from traitor to mad dog, but I still think he was both wise and benevolent. I don't care how many second-guessing historians disagree with me.

"I propose," said Manning, "that we begin by immobilizing all aircraft throughout the world."

The Secretary of Commerce raised his brows. "Aren't you," he said, "being a little fantastic, Colonel Manning?"

"No, I'm not," answered Manning shortly. "I'm being realistic. The key to this problem is aircraft. Without aircraft the dust is an inefficient weapon. The only way I see to gain time enough to deal with the whole problem is to ground all aircraft and put them out of operation. All aircraft, that is, not actually in the service of the United States Army. After that we can deal with complete world disarmament and permanent methods of control."

"Really now," replied the Secretary, "you are not proposing that commercial airlines be put out of operation. They are an essential part of world economy. It would be an intolerable

nuisance.”

“Getting killed is an intolerable nuisance, too,” Manning answered stubbornly. “I do propose just that. All aircraft. All.”

The President had been listening without comment to the discussion. He now cut in. “How about aircraft on which some groups depend to stay alive, Colonel, such as the Alaskan lines?”

“If there are such, they must be operated by American Army pilots and crews. No exceptions.”

The Secretary of Commerce looked startled. “Am I to infer from that last remark that you intended this prohibition to apply to the United States as well as other nations?”

“Naturally.”

“But that’s impossible. It’s unconstitutional. It violates civil rights.”

“Killing a man violates his civil rights, too,” Manning answered stubbornly.

“You can’t do it. Any Federal Court in the country would enjoin you in five minutes.”

“It seems to me,” said Manning slowly, “that Andy Jackson gave us a good precedent for that one when he told John Marshall to go fly a kite.” He looked slowly around the table at faces that ranged from undecided to antagonistic. “The issue is sharp, gentlemen, and we might as well drag it out in the open. We can be dead men, with everything in due order, constitutional, and technically correct; or we can do what has to be done, stay alive, and try to straighten out the legal aspects later.” He shut up and waited.

The Secretary of Labor picked it up. “I don’t think the Colonel has any corner on realism. I think I see the problem, too, and I admit it is a serious one. The dust must never be used again. Had I known about it soon enough, it would never have been used on Berlin. And I agree that some sort of worldwide control is necessary. But where I differ with the Colonel is in the method. What he proposes is a military dictatorship imposed by force on the whole world. Admit it, Colonel. Isn’t that what you are proposing?”

Manning did not dodge it. “That is what I am proposing.”

“Thanks. Now we know where we stand. I, for one, do not regard democratic measures and constitutional procedure as of so little importance that I am willing to jettison them any time it becomes convenient. To me, democracy is more than a matter of expediency, it is a faith. Either it works, or I go under with it.”

“What do you propose?” asked the President.

“I propose that we treat this as an opportunity to create a worldwide democratic commonwealth! Let us use our present dominant position to issue a call to all nations to send representatives to a conference to form a world constitution.”

“League of Nations,” I heard someone mutter.

“No!” he answered the side remark. “Not a League of Nations. The old League was helpless because it had no real existence, no power. It was not implemented to enforce its decisions; it was just a debating society, a sham. This would be different for we would turn over the dust to it!”

Nobody spoke for some minutes. You could see them turning it over in their minds, doubtful, partially approving, intrigued but dubious.

“I’d like to answer that,” said Manning.

“Go ahead,” said the President.

“I will. I’m going to have to use some pretty plain language and I hope that Secretary Larner will do me the honor of believing that I speak so from sincerity and deep concern and not from personal pique.

“I think a world democracy would be a very fine thing and I ask that you believe me when I say I would willingly lay down my life to accomplish it. I also think it would be a very fine thing for the lion to lie down with the lamb, but I am reasonably certain that only the lion would get up. If we try to form an actual world democracy, we’ll be the lamb in the setup.

“There are a lot of good, kindly people who are internationalists these days. Nine out of ten of them are soft in the head and the tenth is ignorant. If we set up a worldwide democracy, what will the electorate be? Take a look at the facts: Four hundred million Chinese with no more concept of voting and citizen responsibility than a flea; three hundred million Hindus who aren’t much better indoctrinated; God knows how many in the Eurasian Union who believe in God knows what; the entire continent of Africa only semicivilized; eighty million Japanese who really believe that they are Heaven-ordained to rule; our Spanish-American friends who might trail along with us and might not, but who don’t understand the Bill of Rights the way we think of it; a quarter of a billion people of two dozen different nationalities in Europe, all with revenge and black hatred in their hearts.

“No, it won’t wash. It’s preposterous to talk about a world democracy for many years to come. If you turn the secret of the dust over to such a body, you will be arming the whole world to commit suicide.”

Larner answered at once. “I could resent some of your remarks, but I won’t. To put it bluntly, I consider the source. The trouble with you, Colonel Manning, is that you are a professional soldier and have no faith in people. Soldiers may be necessary, but the worst of them are martinets and the best are merely paternalistic.” There was quite a lot more of the same.

Manning stood it until his turn came again. “Maybe I am all those things, but you haven’t met my argument. What are you going to do about the hundreds of millions of people who have no experience in, nor love for, democracy? Now, perhaps, I don’t have the same concept of democracy as yourself, but I do know this: Out West there are a couple of hundred thousand people who sent me to Congress; I am not going to stand quietly by and let a course be followed which I think will result in their deaths or utter ruin.

“Here is the probable future, as I see it, potential in the smashing of the atom and the development of lethal artificial radioactives. Some power makes a supply of the dust. They’ll hit us first to try to knock us out and give them a free hand. New York and Washington overnight, then all of our industrial areas while we are still politically and economically disorganized. But our army would not be in those cities; we would have planes and a supply of dust somewhere where the first dusting wouldn’t touch them. Our boys would bravely and righteously proceed to poison their big cities. Back and forth it would go until the organization of each country had broken down so completely that they were no longer able to maintain a sufficiently high level of industrialization to service planes and manufacture dust. That presupposes starvation and plague in the process. You can fill in the details.

“The other nations would get in the game. It would be silly and suicidal, of course, but it doesn’t take brains to take a hand in this. All it takes is a very small group, hungry for power, a few airplanes and a supply of dust. It’s a vicious circle that cannot possibly be stopped until the entire planet has dropped to a level of economy too low to support the techniques necessary to maintain it. My best guess is that such a point would be reached when approximately three-quarters of the world’s population were dead of dust, disease, or hunger, and culture reduced to the peasant-and-village type.

“Where is your Constitution and your Bill of Rights if you let that happen?”

I’ve shortened it down, but that was the gist of it. I can’t hope to record every word of an argument that went on for days.

The Secretary of the Navy took a crack at him next. “Aren’t you getting a bit hysterical, Colonel? After all, the world has seen a lot of weapons which were going to make war an impossibility too horrible to contemplate. Poison gas, and tanks, and airplanes even firearms, if I remember my history.”

Manning smiled wryly. “You’ve made a point, Mr. Secretary. ‘And when the wolf really came, the little boy shouted in vain.’ I imagine the Chamber of Commerce in Pompeii presented the same reasonable argument to any early vulcanologist so timid as to fear Vesuvius. I’ll try to justify my fears. The dust differs from every earlier weapon in its deadliness and ease of use, but most importantly in that we have developed no defense against it. For a number of fairly technical reasons, I don’t think we ever will, at least not this century.”

“Why not?”

“Because there is no way to counteract radioactivity short of putting a lead shield between yourself and it, an airtight lead shield. People might survive by living in sealed underground cities, but our characteristic American culture could not be maintained.”

“Colonel Manning,” suggested the Secretary of State, “I think you have overlooked the obvious alternative.”

“Have I?”

“Yes to keep the dust as our own secret, go our own way, and let the rest of the world look out for itself. That is the only program that fits our traditions.” The Secretary of State was really a

the old gentleman and not stupid, but I was slow to assimilate new ideas.

"Mr. Secretary," said Manning respectfully, "I wish we could afford to mind our own business. I do wish we could. But it is the best opinion of all the experts that we can't maintain control of this secret except by rigid policing. The Germans were close on our heels in nuclear research; it was sheer luck that we got there first. I ask you to imagine Germany a year hence with a supply of dust."

The Secretary did not answer, but I saw his lips form the word Berlin.

They came around. The President had deliberately let Manning bear the brunt of the argument, conserving his own stock of goodwill to coax the obdurate. He decided against putting it up to Congress; the dusts would have been overhead before each senator had finished his say. What he intended to do might be unconstitutional, but if he failed to act there might not be any Constitution shortly. There was precedent: the Emancipation Proclamation, the Monroe Doctrine, the Louisiana Purchase, suspension of habeas corpus in the War between the States, the Destroyer Deal.

On February 22nd the President declared a state of full emergency internally and sent his Peace Proclamation to the head of every sovereign state. Divested of its diplomatic surplusage, it said: The United States is prepared to defeat any power, or combination of powers, in jig time. Accordingly, we are outlawing war and are calling on every nation to disarm completely at once. In other words, "Throw down your guns, boys; we've got the drop on you!"

A supplement set forth the procedure: All aircraft capable of flying the Atlantic were to be delivered in one week's time to a field, or rather a great stretch of prairie, just west of Fort Riley, Kansas. For lesser aircraft, a spot near Shanghai and a rendezvous in Wales were designated. Memoranda would be issued later with respect to other war equipment. Uranium and its ores were not mentioned; that would come later.

No excuses. Failure to disarm would be construed as an act of war against the United States.

There were no cases of apoplexy in the Senate; why not, I don't know.

There were only three powers to be seriously worried about, England, Japan, and the Eurasian Union. England had been forewarned, we had pulled her out of a war she was losing, and she or rather her men in power knew accurately what we could and would do.

Japan was another matter. They had not seen Berlin and they did not really believe it. Besides, they had been telling each other for so many years that they were unbeatable, they believed it. It does not do to get too tough with a Japanese too quickly, for they will die rather than lose face. The negotiations were conducted very quietly indeed, but our fleet was halfway from Pearl Harbor to Kobe, loaded with enough dust to sterilize their six biggest cities, before they were concluded. Do you know what did it? This never hit the newspapers but it was the wording of the pamphlets we proposed to scatter before dusting.

The Emperor was pleased to declare a New Order of Peace. The official version, built up for home consumption, made the whole matter one of collaboration between two great and friendly powers, with Japan taking the initiative.

The Eurasian Union was a puzzle. After Stalin's unexpected death in 1941, no western nation knew very much about what went on in there. Our own diplomatic relations had atrophied through failure to replace men called home nearly four years before. Everybody knew, of course, that the new group in power called themselves Fifth Internationalists, but what that meant, aside from ceasing to display the pictures of Lenin and Stalin, nobody knew.

But they agreed to our terms and offered to cooperate in every way. They pointed out that the Union had never been warlike and had kept out of the recent world struggle. It was fitting that the two remaining great powers should use their greatness to insure a lasting peace.

I was delighted; I had been worried about the E.U.

They commenced delivery of some of their smaller planes to the receiving station near Shanghai at once. The reports on the number and quality of the planes seemed to indicate that they had stayed out of the war through necessity; the planes were mostly of German make and in poor condition, types that Germany had abandoned early in the war.

Manning went west to supervise certain details in connection with immobilizing the big planes, the transoceanic planes, which were to gather near Fort Riley. We planned to spray them with oil, then dust from a low altitude, as in crop dusting, with a low concentration of one-year dust. Then we could turn our backs on them and forget them, while attending to other matters.

But there were hazards. The dust must not be allowed to reach Kansas City, Lincoln, Wichita or any of the nearby cities. The smaller towns roundabout had been temporarily evacuated. Testing stations needed to be set up in all directions in order that accurate tab on the dust might be kept. Manning felt personally responsible to make sure that no bystander was poisoned.

We circled the receiving station before landing at Fort Riley. I could pick out the three landing fields which had hurriedly been graded. Their runways were white in the sun, the twenty-four-hour cement as yet undirtied. Around each of the landing fields were crowded dozens of parking fields, less perfectly graded. Tractors and bulldozers were still at work on some of them. In the easternmost fields, the German and British ships were already in place, jammed wing to body as tightly as planes on the flight deck of a carrier save for a few that were still being towed into position, the tiny tractors looking from the air like ants dragging pieces of leaf many times larger than themselves.

Only three flying fortresses had arrived from the Eurasian Union. Their representatives had asked for a short delay in order that a supply of high-test aviation gasoline might be delivered to them. They claimed a shortage of fuel necessary to make the long flight over the Arctic safe. There was no way to check the claim and the delay was granted while a shipment was routed from England.

We were about to leave, Manning having satisfied himself as to safety precautions, when a dispatch came in announcing that a flight of E.U. bombers might be expected before the day was out. Manning wanted to see them arrive; we waited around for four hours. When it was finally reported that our escort of fighters had picked them up at the Canadian border, Manning appeared to have grown fidgety and stated that he would watch them from the air. We took off, gained altitude and waited.

There were nine of them in the flight, cruising in column of echelons and looking so huge that our little fighters were hardly noticeable. They circled the field and I was admiring the stately dignity of them when Manning's pilot, Lieutenant Rafferty, exclaimed, "What the devil! They are preparing to land downwind!"

I still did not tumble, but Manning shouted to the copilot, "Get the field!"

He fiddled with his instruments and announced, "Got 'em, sir!"

"General alarm! Armor!"

We could not hear the sirens, naturally, but I could see the white plumes rise from the big steam whistle on the roof of the Administration Building three long blasts, then three short ones. It seemed almost at the same time that the first cloud broke from the E.U. planes.

Instead of landing, they passed low over the receiving station, jam-packed now with ships from all over the world. Each echelon picked one of three groups centered around the three landing fields and streamers of heavy brown smoke poured from the bellies of the E.U. ships. I saw a tiny black figure jump from a tractor and run toward the nearest building. Then the smoke screen obscured the field.

"Do you still have the field?" demanded Manning.

"Yes, sir."

"Cross connect to the chief safety technician. Hurry!"

The copilot cut in the amplifier so that Manning could talk directly. "Saunders? This is Manning. How about it?"

"Radioactive, chief. Intensity seven point four."

They had paralleled the Karst-Obre research.

Manning cut him off and demanded that the communication office at the field raise the Chief of Staff. There was nerve-stretching delay, for it had to be routed over land wire to Kansas City, and some chief operator had to be convinced that she should commandeer a trunk line that was in commercial use. But we got through at last and Manning made his report. "It stands to reason," I heard him say, "that other flights are approaching the border by this time. New York, of course, and Washington. Probably Detroit and Chicago as well. No way of

knowing.”

The Chief of Staff cut off abruptly, without comment. I knew that the U.S. air fleets, in a state of alert for weeks past, would have their orders in a few seconds, and would be on their way to hunt out and down the attackers, if possible before they could reach the cities.

I glanced back at the field. The formations were broken up. One of the E.U. bombers was down, crashed, half a mile beyond the station. While I watched, one of our midget dive bombers screamed down on a behemoth E.U. ship and unloaded his eggs. It was a center hit, but the American pilot had cut it too fine, could not pull out, and crashed before his victim.

There is no point in rehashing the newspaper stories of the Four-Days War. The point is that we should have lost it, and we would have, had it not been for an unlikely combination of luck, foresight, and good management. Apparently, the nuclear physicists of the Eurasian Union were almost as far along as Ridpath’s crew when the destruction of Berlin gave them the tip they needed. But we had rushed them, forced them to move before they were ready, because of the deadline for disarmament set forth in our Peace Proclamation.

If the President had waited to fight it out with Congress before issuing the proclamation, there would not be any United States.

Manning never got credit for it, but it is evident to me that he anticipated the possibility of something like the Four-Days War and prepared for it in a dozen different devious ways. I don’t mean military preparation; the Army and the Navy saw to that. But it was no accident that Congress was adjourned at the time. I had something to do with the vote-swapping and compromising that led up to it, and I know.

But I put it to you: would he have maneuvered to get Congress out of Washington at a time when he feared that Washington might be attacked if he had had dictatorial ambitions?

Of course, it was the President who was back of the ten-day leaves that had been granted to most of the civil-service personnel in Washington and he himself must have made the decision to take a swing through the South at that time, but it must have been Manning who put the idea in his head. It is inconceivable that the President would have left Washington to escape personal danger.

And then, there was the plague scare. I don’t know how or when Manning could have started that; it certainly did not go through my notebook, but I simply do not believe that it was accidental that a completely unfounded rumor of bubonic plague caused New York City to be semideserted at the time the E.U. bombers struck.

At that, we lost over eight hundred thousand people in Manhattan alone.

Of course, the government was blamed for the lives that were lost and the papers were merciless in their criticism at the failure to anticipate and force an evacuation of all the major cities.

If Manning anticipated trouble, why did he not ask for evacuation?

Well, as I see it, for this reason:

A big city will not be, never has been, evacuated in response to rational argument. London never was evacuated on any major scale and we failed utterly in our attempt to force the evacuation of Berlin. The people of New York City had considered the danger of air raids since 1940 and were long since hardened to the thought.

But the fear of a nonexistent epidemic of plague caused the most nearly complete evacuation of a major city ever seen.

And don’t forget what we did to Madivostok and Irkutsk and Moscow: those were innocent people, too. War isn’t pretty.

I said luck played a part. It was bad navigation that caused one of our ships to dust Ryazan instead of Moscow, but that mistake knocked out the laboratory and plant which produced the only supply of military radioactives in the Eurasian Union. Suppose the mistake had been the other way around: suppose that one of the E.U. ships in attacking Washington, D.C., by mistake had included Ridpath’s shop forty-five miles away in Maryland?

Congress reconvened at the temporary capital in St. Louis, and the American Pacification Expedition started the job of pulling the fangs of the Eurasian Union. It was not a military occupation in the usual sense; there were two simple objectives: to search out and dust all aircraft, aircraft plants, and fields, and to locate and dust radiation laboratories, uranium supplies, and lodes of carnotite and pitchblende. No attempt was made to interfere with, or to replace, civil government.

We used a two-year dust, which gave a breathing spell in which to consolidate our position. Liberal rewards were offered to informers, a technique which worked remarkably well not only in the E.U., but in most parts of the world.

The “weasel,” an instrument to smell out radiation, based on the electroscope-discharge principle and refined by Ridpath’s staff, greatly facilitated the work of locating uranium and uranium ores. A grid of weasels, properly spaced over a suspect area, could locate any important mass of uranium almost as handily as a direction-finder can spot a radio station.

But, notwithstanding the excellent work of General Bulfinch and the Pacification Expedition as a whole, it was the original mistake of dusting Ryazan that made the job possible of accomplishment.

Anyone interested in the details of the pacification work done in 1945-6 should see the “Proceedings of the American Foundation for Social Research” for a paper entitled “A Study of the Execution of the American Peace Policy from February, 1945. The de facto solution of the problem of policing the world against war left the United States with the much greater problem of perfecting a policy that would insure that the deadly power of the dust would never fall into unfit hands.

The problem is as easy to state as the problem of squaring the circle and almost as impossible of accomplishment. Both Manning and the President believed that the United States must of necessity keep the power for the time being, until some permanent institution could be developed fit to retain it. The hazard was this: Foreign policy is lodged jointly in the hands of the President and the Congress. We were fortunate at the time in having a good President and an adequate Congress, but that was no guarantee for the future. We have had unfit Presidents and power-hungry Congresses, oh, yes! Read the history of the Mexican War.

We were about to hand over to future governments of the United States the power to turn the entire globe into an empire, our empire. And it was the sober opinion of the President that our characteristic and beloved democratic culture would not stand up under the temptation. Imperialism degrades both oppressor and oppressed.

The President was determined that our sudden power should be used for the absolute minimum of maintaining peace in the world: the simple purpose of outlawing war and nothing else. It must not be used to protect American investments abroad, to coerce trade agreements, for any purpose but the simple abolition of mass killing.

There is no science of sociology. Perhaps there will be, some day, when a rigorous physics gives a finished science of colloidal chemistry and that leads in turn to a complete knowledge of biology, and from there to a definitive psychology. After that we may begin to know something about sociology and politics. Sometime around the year 5000 A.D., maybe if the human race does not commit suicide before then.

Until then, there is only horse sense and rule of thumb and observational knowledge of probabilities. Manning and the President played by ear.

The treaties with Great Britain, Germany and the Eurasian Union, whereby we assumed the responsibility for world peace and at the same time guaranteed the contracting nations against our own misuse of power, were rushed through in the period of relief and goodwill that immediately followed the termination of the Four-Days War. We followed the precedents established by the Panama Canal treaties, the Suez Canal agreements, and the Philippine Independence policy.

But the purpose underneath was to commit future governments of the United States to an irrevocable benevolent policy.

The act to implement the treaties by creating the Commission of World Safety followed soon after, and Colonel Manning became Mr. Commissioner Manning. Commissioners had a life tenure and the intention was to create a body with the integrity, permanence and freedom from outside pressure possessed by the Supreme Court of the United States. Since the treaties contemplated an eventual joint trust, commissioners need not be American citizens and the oath they took was to preserve the peace of the world.

There was trouble getting the clause past the Congress! Every other similar oath had been to the Constitution of the United States.

Nevertheless the Commission was formed. It took charge of world aircraft, assumed jurisdiction over radioactives, natural and artificial, and commenced the long slow task of building up the Peace Patrol.

Manning envisioned a corps of world policemen, an aristocracy which, through selection and indoctrination, could be trusted with unlimited power over the life of every man, every woman, every child on the face of the globe. For the power would be unlimited; the precautions necessary to insure the unbeatable weapon from getting loose in the world again made it axiomatic that its custodians would wield power that is safe only in the hands of Deity. There would be no one to guard those selfsame guardians. Their own characters and the watch they kept on each other would be all that stood between the race and disaster.

For the first time in history, supreme political power was to be exerted by a possibility of checks and balances from the outside. Manning took up the task of perfecting it with a dragging subconscious conviction that it was too much for human nature.

The rest of the Commission was appointed slowly, the names being sent to the Senate after long joint consideration by the President and Manning. The director of the Red Cross, an obscure little professor of history from Switzerland, Dr. Igor Rimski who had developed the Karst-Obre technique independently and whom the A.P.F. had discovered in prison after the dusting of Moscow—those three were the only foreigners. The rest of the list is well known.

Ridpath and his staff were of necessity the original technical crew of the Commission; United States Army and Navy pilots its first patrolmen. Not all of the pilots available were needed; their records were searched, their habits and associates investigated, their mental processes and emotional attitudes examined by the best psychological research methods available—which weren't good enough. Their final acceptance for the Patrol depended on two personal interviews, one with Manning, one with the President.

Manning told me that he depended more on the President's feeling for character than he did on all the association and reaction tests the psychologists could think up. "It's like the nose of a bloodhound," he said. "In his forty years of practical politics he has seen more phonies than you and I will ever see and each one was trying to sell him something. He can tell one in the dark."

The long-distance plan included the schools for the indoctrination of cadet patrolmen, schools that were to be open to youths of any race, color, or nationality, and from which they would go forth to guard the peace of every country but their own. To that country a man would never return during his service. They were to be a deliberately expatriated band of Janizaries, with an obligation only to the Commission and to the race, and welded together with a carefully nurtured esprit de corps.

It stood a chance of working. Had Manning been allowed twenty years without interruption, the original plan might have worked.

The President's running mate for reelection was the result of a political compromise. The candidate for Vice President was a confirmed isolationist who had opposed the Peace Commission from the first, but it was he or a party split in a year when the opposition was strong. The President sneaked back in but with a greatly weakened Congress; only his power of veto twice prevented the repeal of the Peace Act. The Vice President did nothing to help him, although he did not publicly lead the insurrection. Manning revised his plans to complete the essential program by the end of 1952, there being no way to predict the temper of the next administration.

We were both overworked and I was beginning to realize that my health was gone. The cause was not far to seek; a photographic film strapped next to my skin would cloud in twenty minutes. I was suffering from cumulative minimal radioactive poisoning. No well-defined cancer that could be operated on, but a systemic deterioration of function and tissue. There was no help for it, and there was work to be done. I've always attributed it mainly to the week I spent sitting on those canisters before the raid on Berlin.

February 17, 1951. I missed the televue flash about the plane crash that killed the President because I was lying down in my apartment. Manning, by that time, was requiring me to rest every afternoon after lunch, though I was still on duty. I first heard about it from my secretary when I returned to my office, and at once hurried into Manning's office.

There was a curious unreality to that meeting. It seemed to me that we had slipped back to that day when I returned from England, the day that Estelle Karst died. He looked up. "Hello, John," he said.

I put my hand on his shoulder. "Don't take it so hard, chief," was all I could think of to say.

Forty-eight hours later came the message from the newly sworn-in President for Manning to report to him. I took it in to him, an official despatch which I decoded. Manning read it, face impassive.

"Are you going, chief?" I asked.

"Eh? Why, certainly."

I went back into my office, and got my topcoat, gloves, and briefcase.

Manning looked up when I came back in. "Never mind, John," he said. "You're not going." I guess I must have looked stubborn, for he added, "You're not to go because there is work to do here. Wait a minute."

He went to his safe, twiddled the dials, opened it and removed a sealed envelope which he threw on the desk between us. "Here are your orders. Get busy."

He went out as I was opening them. I read them through and got busy. There was little enough time.

*

The new President received Manning standing and in the company of several of his bodyguards and intimates. Manning recognized the senator who had led the movement to use the Patrol to recover expropriated holdings in South America and Rhodesia, as well as the chairman of the committee on aviation with whom he had had several unsatisfactory conferences in an attempt to work out a modus operandi for reinstituting commercial airlines.

"You're prompt, I see," said the President. "Good."

Manning bowed.

"We might as well come straight to the point," the Chief Executive went on. "There are going to be some changes of policy in the administration. I want your resignation."

"I am sorry to have to refuse, sir."

"We'll see about that. In the meantime, Colonel Manning, you are relieved from duty."

"Mr. Commissioner Manning, if you please."

The new President shrugged. "One or the other, as you please. You are relieved, either way."

"I am sorry to disagree again. My appointment is for life."

"That's enough," was the answer. "This is the United States of America. There can be no higher authority. You are under arrest."

I can visualize Manning staring steadily at him for a long moment, then answering slowly, "You are physically able to arrest me, I will concede, but I advise you to wait a few minutes." He stepped to the window. "Look up into the sky."

Six bombers of the Peace Commission patrolled over the Capitol. "None of those pilots is American born," Manning added slowly. "If you confine me, none of us here in this room will live out the day."

There were incidents thereafter, such as the unfortunate affair at Fort Benning three days later, and the outbreak in the wing of the Patrol based in Lisbon and its resultant wholesale dismissals, but for practical purposes, that was all there was to the coup d'état.

Manning was the undisputed military dictator of the world.

Whether or not any man as universally hated as Manning can perfect the Patrol he envisioned, make it self-perpetuating and trustworthy, I don't know, and because of that week of waiting in a buried English hangar won't be here to find out. Manning's heart disease makes the outcome even more uncertain—he may last another twenty years; he may keel over dead tomorrow and there is no one to take his place. I've set this down partly to occupy the short time I have left and partly to show there is another side to any story, even world dominion.

Not that I would like the outcome, either way. If there is anything to this survival-after-death business, I am going to look up the man who invented the bow and arrow and take him apart with my bare hands. For myself, I can't be happy in a world where any man, or group of men, has the power of death over you and me, our neighbors, every human, every animal, every living thing. I don't like anyone to have that kind of power.

And neither does Manning.