

FOREWORD

After World War II I resumed writing with two objectives: first, to explain the meaning of atomic weapons through popular articles; second, to break out from the limitations and low rates of pulp science-fiction magazines into anything and everything: slicks, books, motion pictures, general fiction, specialized fiction not intended for SF magazines, and nonfiction.

My second objective I achieved in every respect, but in my first and much more important objective I fell flat on my face.

Unless you were already adult in August 1945 it is almost impossible for me to convey emotionally to you how people felt about the A-bomb, how many different ways they felt about it, how nearly totally ignorant 99.9% of our citizens were on the subject, including almost all of our military leaders and governmental officials.

And including editors!

(The general public is just as dangerously ignorant as to the significance of nuclear weapons today, 1979, as in 1945 but in different ways. In 1945 we were smugly ignorant; in 1979 we have the Pollyannas, and the Ostriches, and the Jingoists who think we can "win" a nuclear war, and the groupa majority?who regard World War III as of no importance compared with inflation, gasoline rationing, forced school-busing, or you name it. There is much excuse for the ignorance of 1945; the citizenry had been hit by ideas utterly new and strange. But there is no excuse for the ignorance of 1979. Ignorance today can be charged only to stupidity and laziness both capital offences.)

I wrote nine articles intended to shed light on the post-Hiroshima age, and I have never worked harder on any writing, researched the background more thoroughly, tried harder to make the (grim and horrid) message entertaining and readable. I offered them to commercial markets, not to make money, but because the only propaganda that stands any chance of influencing people is packaged so attractively that editors will buy it in the belief that the cash customers will be entertained by it.

Mine was not packaged that attractively.

I was up against some heavy tonnage:

General Groves, in charge of the Manhattan District (code name for A-bomb R&D), testified that it would take from twenty years to forever for another country to build an A-bomb. (U.S.S.R. did it in 4 years.)

The Chief of Naval Operations testified that the "only" way to deliver the bomb to a target across an ocean was by ship.

A very senior Army Air Force general testified that "blockbuster" bombs were just as effective and cheaper.

The chairman of NACA (shortly to become NASA) testified (Science News Letter 25 May 1946) that intercontinental rockets were impossible.

Ad nauseam the old sailors want wooden ships, the old soldiers want horse cavalry.

But I continued to write these articles until the U.S.S.R. rejected the United States' proposals for controlling and outlawing atomic weapons through open skies and mutual on-the-ground inspection, i.e., every country in the world to surrender enough of its sovereignty to the United Nations that mass-weapons war would become impossible (and lesser war unnecessary).

The U.S.S.R. rejected inspection and I stopped trying to peddle articles based on tying the Bomb down through international policing.

I wish that I could say that thirty-three years of "peace" (i.e., no A-or H-or C-or N-or X-bombs dropped) indicates that we really have nothing to fear from such weapons, because the human race has sense enough not to commit suicide. But I am sorry to say that the situation is even more dangerous, even less stable, than it was in 1946.

Here are three short articles, each from a different approach, with which I tried (and failed) to beat the drum for world peace.

Was I really so naif that I thought that I could change the course of history this way? No, not really. But, damn it, I had to try!

"Here lie the bare bones of the United States of America, conceived in freedom, died in bondage. 1776-1986. Death came mercifully, in one stroke, during senility.

"Rest in Peace!"

No expostulations, please. Let us not kid ourselves. The next war can destroy us, utterly, as a nation and World War III is staring us right in the face. So far, we have done little to avert it and less to prepare for it. Once upon a time the United Nations organization stood a fair chance of preventing World War III. Now, only a major operation can equip the UNO to cope with the horrid facts of atomics and rocketry a major operation which would take away the veto power of the Big Five and invest the world organization with the sole and sovereign power to possess atomic weapons.

Are we, as a people, prepared to make the necessary sacrifices to achieve a world authority?

Take a look around you. Many of your friends and neighbors believe that the mere possession of the atomic bomb has rendered us immune to attack. So the country settles back with a sigh of relief, content to leave foreign affairs to William Randolph Hearst, the Denver Post, and the Chicago Tribune. We turn our backs on world responsibility and are now hell-bent on new washing machines and new cars.

From such an attitude, with dreadful certainty, comes World War III, the Twenty Minute War, the Atomic War, the War of Final Destruction. The "secret" of the atomic bomb cannot be kept, the experts have told us repeatedly, for the "secret" is simply engineering know-how which can be developed by any industrial nation.

From this fact it can be predicted that any industrial nation, even though small and comparatively weak, will in a few years be able to create the means to destroy the United States at will in one all-out surprise attack. What constitutes a strong power in the Atomic Era? Scientific knowledge, engineering skill, and access to the ores of uranium no more is needed. Under such circumstances the pretensions of the Big Five to veto powers over the affairs of this planet are preposterous. At the moment there is only the Big One, the United States, through its temporary exclusive possession of the Bomb. Tomorrow five to ten years the list might include any of the many nations with the two requirements.

Belgium and Canada have the greatest known deposits of uranium. Both are small but both possess science and skill in abundance. Potentially they are more powerful than any of the so-called Big Five, more powerful than the United States or Russia. Will they stand outside indefinitely, hat in hand, while the "Big Five" determine the fate of the human race? The developments of atomic weapons and of rocketry are analogous to the development of the revolver in individual affairs; it has made the little ones and the big ones all the same size. Some fine day some little nation may decide she is tired of having us around, give us one twenty-minute treatment with atomic rocket bombs, and accept our capitulation.

We have reason to fear such an attack. We have been through one Pearl Harbor; we know that it can happen to us. Our present conduct breeds fear and distrust in the hearts of men all over the globe. No matter how we think of ourselves, no matter how peaceful and good hearted we think ourselves to be, two facts insure that we will be hated by many. We have the Bomb; it is like a loaded revolver pointed at the heads of all men. Oh, we won't pull the trigger! Nevertheless, do you suppose they love us for it?

Our other unforgivable sin is being rich while they are poor. Never mind our rationalizations; they see our wasteful luxury while much of the globe starves. Hungry men do not reason calmly. We are getting ourselves caught in a situation which should lead us to expect attack from any quarter, from whoever first produces atomic weapons and long-distance rockets.

Knowing these things, the professional gentlemen who are charged with the defense of this country, the generals and the admirals and the members of the military and naval affairs committees of both houses, are cudgelling their brains in a frenzied but honest attempt to persuade the rest of the country to follow this course or that, which, in their several opinions, will safeguard the country in any coming debacle.

But there is a tragic sameness to their proposals. With few exceptions, they favor preparedness for the last war. Thusly:

Conscription in peacetime to build up a reserve;

Emphasis on aircraft carriers rather than battleships;

Decentralization of cities;

An armaments race to keep our head start in atomic weapons;

Agreements to "outlaw" atomic weapons;

Consolidation of the Army and the Navy;

Buying enough war planes each year to insure new development;

An active military and foreign affairs intelligence corps;

Moving the aircraft industry inland;

Placing essential war industry underground.

These are the progressive proposals. (Some still favor infantry and battleships!) In contrast, General Arnold says to expect war in which space ships cruise outside the atmosphere and launch super-high-speed, atomic-armed rockets on cities below. Hap Arnold tells his boys to keep their eyes on Buck Rogers. Somebody is wrong: is it Hap Arnold or his more conservative colleagues?

Compulsory military training France had that, for both wars. The end was Vichy.

Aircraft carriers vs. battleships. Look, pals, the aircraft carrier was the weapon of this war, before Hiroshima. Carriers don't look so good against space ships. Let's build galleons instead; they are cheaper, prettier, and just as useful.

Decentralization of large cities let's table this one for a moment. There is some sense to it, if carried to its logical conclusion. But not with half measures and not for \$250,000,000,000 the sum mentioned by Sumner Spaulding, its prime proponent.

Bigger and better atomic weapons for the United States this has a reasonable and reassuring sound. We've got the plant and the trained men; let's stay ahead in the race. Dr. Robert Wilson says that atomic bombs a hundred or a thousand times as powerful as the Hiroshima bomb are now in prospect. Teddy Roosevelt advised us to "Speak softly but carry a big stick."

It is a tempting doctrine, but the great-hearted Teddy died long before Hiroshima; his day was the day of the charge up San Juan Hill. A hundred obsolete atomic bombs could destroy the United States if the enemy struck first. Our super bombs would not save us, unless we were willing to strike first, without declaring war. If two men are locked in a basement, one armed with a 50-calibre machine gun, the other with an 18th century ball-and-powder pistol, victory goes to the man who shoots first, not to the one with the better weapon. That is the logic of atomics and now is the time to learn it by heart.

Agreements to "outlaw" atomic weapons? Swell! Remember the Kellogg Pact? It "outlawed" war.

Consolidation of the armed forces: A proposition sensible in itself, but disastrously futile unless we realize that all previous military art is obsolete in the atomic age. The best pre-Hiroshima weapons are now no more than the sidearms of the occupying military police. Buck Rogers must be the new chief of staff. Otherwise we will find ourselves with the most expensive luxury in the world: a second-best military establishment.

Purchase of military aircraft in quantities to insure new development: we bought sailing ships-of-the-line in the 1880's. This makes the same sort of pseudo-sense. Airplanes are already obsolescent, clumsy, and useless. The V-2 is credited with a speed of 3600 miles per hour. Here is a simple problem in proportion: The Wright Brothers' plane at Kitty Hawk bears the same relation to the B-29 that the V-2 bears to the rocket ship of the coming war. Complete the equation by visualizing the coming rocket ship. Then stop wasting taxes on airplanes.

An efficient intelligence system: Fine! But no answer in itself. The British intelligence was quite efficient before this war. Mr. Chamberlain's desk was piled high with intelligence reports, reports which showed that Munich need never have happened. This has since been confirmed by high German General Staff officers. But Mr. Chamberlain did not read the reports. Intelligence reports are useful only to the intelligent.

Moving the aircraft industry inland: excellent preparation for World War II. Move an industry which we don't need for World War III inland where it will be safe from the weapons of World War II. While we are about it let's put stockades around them to keep the Indians out. In the meantime our potential enemies will have plenty of time to perfect long-range rockets.

Placing key war industry underground: assembly lines underground are all very well, but blast furnaces and many other things simply won't fit. Whatever digging in we do, be sure we do it so secretly that the enemy will never suspect, lest he drop an earthquake-type atomic bomb somewhere nearby and bury all hands. Let us be certain, too, that he does not introduce a small atomic bomb inside the underground works, disguised as a candy vending machine, a lunch pail, or a fire extinguisher. The age of atomics is a field day for saboteurs: underground works could be colossal death traps.

No one wants this new war, no sane men anywhere. Yet we are preparing for it and a majority, by recent Gallup polls, believe it will come. We have seen the diplomats and prime ministers and presidents and foreign affairs committees and state departments manage to get things messed up in the past; from where we sit it looks as if they were hell-bent on messing them up again. We hear the rumble of the not-so-distant drum.

What we want, we little men everywhere, is planetary organization so strong that it can enforce peace, forbid national armaments, atomic or otherwise, and in general police the globe so that a decent man can raise his kids and his dog and smoke his pipe free from worry of sudden death. But we see the same old messing around with half measures.

(If you want to help to try to stop the messing-up process, you might write Congressman Jerry Voorhis, or Senator Fulbright, or Senator Ball, or Beardsley Ruml, or Harold Stassen. Or even the President himself.)

If things go from bad to worse and we have to fight a war, can we prepare to win it? First let us try to grasp what kind of a war it will be. Look at LIFE, Nov. 19, 1945, page 27: THE 36-HOUR WAR: Arnold Report Hints at the Catastrophe of the Next Great Conflict. The first picture shows Washington, D.C., being destroyed by an atomic rocket bomb. The text and pictures go on to show 13 U.S. cities being destroyed the same way, enemy airborne troops attempting to occupy the U.S. striking back with its own rockets from underground emplacements, and eventually winning at a cost of 13 cities and at least 10,000,000 American lives.

Horrible as the picture is, it is much too optimistic. There is no reason at all to assume that the enemy will attack in too little force, destroying only 13 cities, or to assume that he will attempt to occupy until we have surrendered, or to assume that we will be able to strike back after we are attacked.

It is not safe to assume that the enemy will be either faint-hearted or foolish. If he follows our example with Japan, he will smash us until we surrender, then land. If his saboteurs are worth their blood money, our own rocket emplacements may be blown up by concealed atomic bombs just in advance of the attack.

Atomic rocket warfare has still another drawback: it is curiously anonymous. We might think we knew who had attacked us but be entirely mistaken.

You can think of at least three nations which dislike both us and Russia. What better joke for them than to select a time when suspicion has been whipped up between the two giants to lob just a few atomic rockets from a ship in the North Atlantic, or from a secret emplacement in the frozen north of Greenland half at us, half at Russia, and with the attack in each case apparently coming from the other, and then sit back while we destroyed each other!

A fine joke! You would die laughing.

Don't think it can't be done, to us and to Russia.

What can we do?

The first thing is to get Congress to take a realistic view of the situation. The most certain thing about LIFE's description of the coming war was the destruction of Washington. Washington is the prime military target on earth today for it is the center of the nervous system of the nation that now has the Bomb. It must be destroyed first and it will be destroyed, if war ever comes. Your congressman has the most dangerous job in the world today. You may live through World War III; he can't. Make yours realize this; he may straighten up and fly right.

What we want him to work for is world order and world peace. But we may not get it. The other nations may be fed up with our shilly-shallying and may not go along with us, particularly any who believe they are close to solving the problems of atomic weapons. We may have to go it alone. In such cases, is there anything we can do to preserve ourselves?

Yes, probably: but the price is high.

We can try for another Buck Rogers weapon with which to ward off atomic bomb rockets. It would need to be better than anything we have now or can foresee. To be 100% effective (with atom bombs, anything less is hardly good enough!) it should be something which acts with much greater speed than guns or anti-aircraft rockets. There is a bare possibility that science could cook up some sort of a devastatingly powerful beam of energy, acting with the speed of light, which would be a real anti-aircraft weapon, even against rockets. But the scientists don't promise it.

We would need the best anti-aircraft devices possible, in the meantime. A robot hook-up of target-seeking rockets, radar, and computing machines might give considerable protection, if extensive enough, but there is a lot of research and test and production ahead before any such plan is workable. Furthermore, it could not be air tight and it would be very expensive and

very annoying, and it would mean civilian aviation. If we had the thing up to ignore civilian planes, we would leave ourselves wide open to a Trojan Horse tactic in which the enemy would use ordinary planes to deliver his atomic bombs.

Such a defense, although much more expensive and much more trouble than all our pre-War military establishment, would be needed. If we are not willing to foot the bill, we can at least save money by not buying flame throwers, tanks, or battleships.

We can prepare to attack. We can be so bristlingly savage that other nations may fear to attack us. If we are not to have a superstate and a world police, then the United States needs the fastest and the most long-range rockets, the most powerful atomic blasts, and every other dirty trick conceived in comic strip or fantastic fiction. We must have space ships and we must have them first. We must land on the Moon and take possession of it in order to forbid its use to other nations as a base against us and in order to have it as a base against any enemy of ours. We must set up, duplicate, and reduplicate rocket installations intended to destroy almost automatically any spot on earth; we must let the world know that we have them and that we are prepared to use them at the drop of a diplomat's silk hat. We must be prepared to tell uncooperative nations that there are men sitting in front of switches, day and night, and that an attack on Washington would cause those switches to be thrown.

And we must guard the secrets of the locations and natures of our weapons in a fashion quite impossible for a normal democracy in peace time. More of that later.

Decentralization we would have to have. Not the picayune \$250,000,000,000 job which has been proposed

("Wait a minute! Why should we disperse our cities if we are going to have that Buck Rogers super-doooper death ray screen?")

We haven't got such a screen. Nor is it certain that we will ever have such a screen, no matter how much money we spend. Such a screen is simply the one remote possibility which modern physics admits. It may turn out to be impossible to develop it; we simply don't know.

We must disperse thoroughly, so thoroughly that no single concentration of population in the United States is an inviting target. Mr. Sumner Spaulding's timid proposal of a quarter of a trillion dollars was based on the pleasant assumption that Los Angeles was an example of a properly dispersed city for the Atomic Age. This is an incredible piece of optimism which is apparently based on the belief that Hiroshima is the pattern for all future atomic attacks. Hiroshima was destroyed with one bomb. Will the enemy grace the city of the Angels with only one bomb? Why not a dozen?

The Hiroshima bomb was the gentlest, least destructive atomic bomb ever likely to be loosed. Will the enemy favor us with a love tap such as that?

Within twenty miles of the city hall of Los Angeles lives half the population of the enormous state of California. An atomic bomb dropped on that City Hall would not only blast the swarming center of the city, it would set fire to the surrounding mountains ("WARNING! No Smoking. In or Out of Cars \$500 fine and six months imprisonment") from Mount Wilson Observatory to the sea. It would destroy the railroad terminal half a dozen blocks from the City Hall and play hob with the water system, water fetched clear from the State of Arizona.

If that is dispersion, I'll stay in Manhattan.

Los Angeles is a modern miracle, an enormous city kept alive in a desert by a complex and vulnerable concatenation of technical expedients. The first three colonies established there by the Spaniards starved to death to the last man, woman, and child. If the fragile structure of that city were disrupted by a single atomic bomb, those who survived the blast would in a few short days be reduced to a starving, thirst-crazed mob, ready for murder and cannibalism.

No, if we are to defend ourselves we must not assume that Los Angeles is "dispersed" despite the jokes about her far-flung city line. The Angelenos must be relocated from Oregon to Mexico, in the Mojave Desert, in Imperial Valley, in the great central valley, in the Coast Range, and in the High Sierras.

The same principles apply everywhere. Denver must be scattered out toward Laramie and Boulder, while Colorado Springs must flow around Pike's Peak to Cripple Creek. Kansas City and Des Moines must meet at the Iowa-Missouri line, while Joplin flows up toward Kansas City and on down into the Ozarks. As for Manhattan, that is almost too much to describe from Boston to Baltimore all the great east coast cities must be abandoned and the population scattered like leaves.

The cities must go. Only villages must remain. If we are to rely on dispersion as a defense in the Atomic Age, then we must spread ourselves out so thin that the enemy cannot possibly destroy us with one bingo barrage, so thin that we will be too expensive and too difficult to destroy.

It would be difficult. It would be incredibly difficult and expensive. Mr. Spaulding's estimate would not cover the cost of new housing alone, but new housing would be the least of our problems. We would have to rebuild more than half of our capital plants, shops, warehouses, factories, railroads, highways, power plants, mills, garages, telephone lines, pipe lines, aqueducts, granaries, universities. We would have to take the United States apart and put it back together again according to a new plan and for a new purpose. The financial cost would be unimportant, because we could not buy it, we would have to do it, with our own hands, our own sweat. It would mean a sixty-hour week for everyone, no luxury trades, and a bare minimum standard of living for all for some years. Thereafter the standard of living would be permanently depressed, for the new United States would be organized for defense, not for mass production, nor efficient marketing, nor convenient distribution. We would have to pay for our village culture in terms of lowered consumption. Worse, a large chunk of our lowered productivity must go into producing and supporting the atomic engines of war necessary to strike back against an aggressor for dispersion alone would not protect us from invasion.

If the above picture is too bleak, let us not prate about dispersion. There are only three real alternatives open to us: One, to form a truly sovereign superstate to police the globe; two, to prepare realistically for World War III in which case dispersion, real and thorough dispersion, is utterly necessary; or, third, to sit here, fat, dumb, and happy, wallowing in our luxuries, until the next Hitler annihilates us!

The other necessary consequences of defense by dispersion are even more chilling than the economic disadvantages. If we go it alone and depend on ourselves to defend ourselves we must be prepared permanently to surrender that democratic freedom of action which we habitually enjoyed in peace time. We must resign ourselves to becoming a socialistic, largely authoritarian police state, with freedom of speech, freedom of occupation, and freedom of movement subordinated to military necessity, as defined by those in charge.

Oh, yes! I dislike the prospect quite as much as you do, but I dislike still more the idea of being atomized, or of being served up as a roast by my starving neighbors. Here is what you can expect:

The front door bell rings. Mr. Joseph Public, solid citizen, goes to answer it. He recognizes a neighbor. "Hi, Jack! What takes you out so late?"

"Got some dope for you, Joe. Relocation orders I was appointed an emergency deputy, you know."

"Hadn't heard, but glad to hear. Come in and sit down and tell me about it. How do the orders read? We stay, don't we?"

"Can't come in thanks. I've got twenty-three more stops to make tonight. I'm sorry to say you don't stay. Your caravan will rendezvous at Ninth and Chelsea, facing west, and gets underway at noon tomorrow."

"What!"

"That's how it is. Sorry."

"Why, this is a damned outrage! I put in to stay herewith my home town as second choice."

The deputy shrugged. "So did everybody else. But you weren't even on the list of essential occupations from which the permanent residents were selected. Now, look! I've got to hurry. Here are your orders. Limit yourself to 150 pounds of baggage, each, and take food for three days. You are to go in your own car; you're getting a break and you will be assigned two more passengers by the convoy captain, two more besides your wife I mean."

Joe Public shoved his hands in his pockets and looked stubborn. "I won't be there."

"Now, Joe, don't take that attitude. I admit it's kinda rough, being in the first detachment, but you've had lots of notice. The newspapers have been full of it. It's been six months since the President's proclamation."

"I won't go. There's some mistake. I saw the councilman last week and he said he thought I would be all right. He"

"He told everybody that, Joe. This is a Federal order."

"I don't give a damn if it's from the Angel Gabriel. I tell you I won't go. I'll get an injunction."

"You can't, Joe. This has been declared a military area and protests have to go to the Provost Marshal. I'd hate to tell you what he does with them. Anyhow, you can't stay here; it's no business of mine to put you out; I just have to tell you but the salvage crews will be here tomorrow morning to pull out your plumbing."

"They won't get in."

"Maybe not. But the straggler squads will go through all of these houses first."

"I'll shoot!"

"I wouldn't advise it. They're mostly ex-Marines."

Mr. Public was quiet for a long minute. Marines. "Look, Jack," he said slowly, "suppose I do go. I've got to have an exemption on this baggage limitation and I can't carry passengers. My office files alone will fill up the back seat."

"You won't need them. You are assigned as an apprentice carpenter. The barracks you are going to are only temporary."

"Joseph! Joseph! Don't stand there with the door open! Who is it?" His wife followed her voice in.

He turned to tell her; the deputy took that as a good time to leave.

At eleven the next morning he pulled out of the driveway, gears clashing. He had the white, drawn look of a man who has been up all night. His wife slept beside him, her hysteria drowned in a triple dose of phenobarbital.

That is dispersion. If you don't believe it, ask any native-born citizen of Japanese blood. Nothing less than force and police organization will drive the peasants off the slopes of Vesuvius. The bones of Pompeii and Herculaneum testify to that. Or, ask yourself will you go willingly and cheerfully to any spot and any occupation the government assigns to you? If not, unless you are right now working frantically to make World War III impossible, you have not yet adjusted yourself to the horrid facts of the Atomic Age.

For these are the facts of the Atomic Age. If we are not to have a World State, then we must accept one of two grim alternatives: A permanent state of total war, even in "peace" time, with every effort turned to offense and defense, or relax to our fate, make our peace with God, and wait for death to come out of the sky. The time in which to form a World State is passing rapidly; it may be gone by the time this is printed. It is worthwhile to note that the publisher of the string of newspapers most bitterly opposed to "foreign entanglements," particularly with Russia, and most insistent on us holding on to the vanishing "secret" of the atomic bomb this man, this publisher, lives on an enormous, self-sufficient ranch, already dispersed. Not for him is the peremptory knock on the door and the uprooting relocation order. Yet he presumes daily to tell our Congress what must be done with us and for us.

Look at the facts! Go to your public library and read the solemn statements of the men who built the atomic bomb. Do not let yourself be seduced into a false serenity by men who do not understand that the old world is dead. Regularly, in the past, our State Department has bungled us into wars and with equal regularity our military establishment has been unprepared for them. Then the lives and the strength of the common people have bought for them a victory.

Now comes a war which cannot be won after such mistakes.

If we are to die, let us die like men, eyes open, aware of our peril and striving to cope with it not as fat and fatuous fools, smug in the belief that the military men and the diplomats have the whole thing under control.

"It is later than you think."