

Old drafts

HAS THE TIME COME

TO ABROGATE WAR?

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It is now almost certain that during the term of office of the next President, America will be forced to make a fateful decision concerning the problem that the bomb poses to the world. There are two alternative approaches to this problem and America will have to choose between them. America and Russia will either have to get rid of the bomb or they will have to find a way to live with the bomb.

The acid test of either approach is whether it is capable of abolishing war. Any war in which America and Russia intervene on the opposite sides might turn into an atomic war. This would hold true even if we had complete disarmament; for the world may get rid of the bombs that have been stockpiled but it can not get rid of the knowledge of how to make the bomb. In a setting of virtually complete disarmament at the outset of the war troops might be equipped with machine guns only, but soon thereafter heavier weapons would make their appearance and so would, before long, atomic bombs.

Clearly, as far as the Great Powers are concerned, only by excluding war between them can we solve the problem that the bomb poses

to the world.

If either America or Russia were to choose to live with the bomb, rather than to get rid of it, could she then unilaterally decide to forego war and by doing so force the other to follow suit? It is my contention that this could conceivably happen and I shall try to describe just how it might happen. For this purpose I shall visualize a disturbance which might happen, say five years hence, early in the long-range rocket stage of the atomic stalemate.

Let us assume, for the sake of argument, that the disturbance affects the Arabian Peninsula and threatens to cut off Western Europe from its Mid-Eastern oil supply. Let us imagine that America is on the verge of sending troops into Iran and Saudi Arabia, that Turkish troops are poised to move into Syria and that Russia is concentrating troops on her Turkish border for the purpose of restraining Turkey. Let us suppose further, that at this point America may declare that she is prepared to send troops into Turkey, to use small atomic bombs in combat against Russian troops on Turkish territory and perhaps, in hot pursuit, also beyond the pre-war Turkish-Russian boundary.

Russia would then have to decide whether she wants to risk an atomic war on her southern border which might not remain limited and might end in an all-out atomic catastrophe. She might prefer to proclaim that she would not resist an American intervention locally in the Middle East, but would, if need be, exact a price from America, not in human life but in property. She might proceed to name some twelve American

cities and make it clear that in case of American troop landings in Turkey she would single out one of these cities. She would give that city four weeks' warning to permit its orderly evacuation and to allow time to make arrangements for the feeding and housing of the refugees, and she would then demolish that city with one single long-range rocket.

Russia must, of course, be prepared for America to make the counter threat of demolishing Russian cities if Russia demolishes American cities.

If America adopted the policy of demolishing two cities for each of her cities destroyed by Russia and if Russia similarly adopted a policy of demolishing two cities for each of her cities destroyed by America, then, by demolishing one city in America, Russia would trigger a chain of events which would lead step by step to greater and greater destruction and finally to the destruction of all American and all Russian cities. If both nations were to adopt such a policy, the threat of demolishing one city would become tantamount to a threat of murder and suicide. Such a threat would not be believable and therefore it would be ineffective as a deterrent.

Therefore, if Russia wants to make her threat of demolishing one American city believable she would have to impose severe restrictions upon herself. She would have to make it known that she would tolerate, without threatening any reprisals, that America - in return - demolish a Russian city of the same size and that for any additional city that America might choose to demolish in Russia, Russia would demolish

one and just one city of a similar size in America. Strict adherence to such a "principle of one for one" is the price that Russia would have to pay if she wants to operate, and operate effectively, with the threat of demolishing a city.

What would be the American response to a Russian threat of this sort, provided the threat were properly qualified and therefore believable?

Presumably, the twelve cities named would be lobbying in Washington against the projected armed intervention in the Middle East and they might perhaps force a re-examination of the whole Mid-Eastern issue. People might well ask: "In view of the fact that there is no other market for Mid-Eastern oil, is Western Europe really in danger of losing the supply of oil from the Middle East? Could not the oil from the Sahara replace, if need be, the oil from the Middle East, and if this were so, just how high could the Mid-Eastern countries raise the price of oil?"

As the result of such a re-examination, America might perhaps decide against an intervention in the Middle East.

Let us suppose now that Russia, by making a threat of the kind described, would prevent an American intervention in the Middle East. Russia might then conclude that America cannot force her to fight a war against her will, that she is in a position to forego war and to free herself, if she wants to, from the burden of most of her arms expenditure. She could abolish her tactical air force and her entire

navy, including her fleet of submarines. She could also greatly reduce her army, retaining only a small number of highly mobile units equipped with machine guns and light tanks. Even if she were to do all this, she would still remain free from the danger that she might be vanquished, as long as she maintains an adequate number of long-range rockets. Rockets of this type are comparatively inexpensive, and maintaining an adequate number of them would cost Russia only a small fraction of her present arms expenditure.

One might argue that operating with the threat to demolish cities would favour Russia rather than America because the American Government is more responsive to the will of the people and the people don't like to see their cities demolished. If this were true, and I am not sure that it is, it would increase the likelihood that Russia would, on a suitable occasion, forego the threat of war and embrace instead the threat of a measured demolition of evacuated cities.

While from a moral point of view it would be no minor advance if the threat to destroy property were to take the place of killing soldiers or civilians, such a development would hardly come about merely because it would represent an advance from a moral point of view. It may come about because either Russia or America prefers, in some concrete case, the threat of demolishing an evacuated city to the threat of fighting an atomic war in the contested area. Once either Russia or America unilaterally decides to forego war and to operate with this type of threat instead, the other nation has virtually no choice but to go along.

Are people not too irrational to replace the threat of war with a threat of measured demolition of cities? What would actually happen if, in the case of the concrete example cited above, America were to decide, that rather than give in she would put up with the loss of a city, and were to land troops, equipped with atomic bombs, on the shores of Turkey?

Having named twelve cities at the time she issued her ultimatum, Russia would then have to single out one among them, give it four weeks' warning and then demolish it. Suppose the city singled out is Philadelphia. How would the American people respond in such a situation? Would the residents of, say, Chicago demand that America retaliate not by destroying one city in Russia - to which she would be "entitled"- but two cities, even though they know that, in accordance with the principle of one for one, Russia would then destroy an additional American city and that city might be their own? I personally do not believe that they would raise such a demand.

The loss of a city could, of course, mean a good deal more than just a loss of property. People have a strong emotional attachment to the city in which they live and certain cities are, in fact, irreplaceable. The destruction of a city would cause dislocation of population and destroy the social fabric: thus the damage cannot be expressed in purely monetary terms. I personally believe that Russia would be no less reluctant to lose a city than would America and the odds are, that if the "price" were known in advance neither America

nor Russia would make a move.

In time, France, Germany, Japan, Poland and perhaps other nations also might come into the possession of substantial stockpiles of bombs and rockets suitable for their delivery. This in itself would not overly complicate the situation as long as we can be sure that if an atomic bomb is dropped on a city, the nation who launched the bomb can be identified. The point of origin of the rocket could be identified by setting up throughout the world a number of observation posts which would detect, by means of radar, the firing of a long-range rocket during the ascent of the rocket.

If, however, a number of nations have the capability of launching rockets from submarines, a nation might launch a rocket carrying a hydrogen bomb and its identity might remain secret even though the observation posts may determine the point of the surface of the sea from which the rocket was launched.

The mere fact that a nation, in possession of such submarines, could destroy an American or a Russian city and could remain unidentified does not, of course, mean that such an anonymous attack would be likely to occur. Nations do not do things just because they are bad, but they may do bad things if there is a substantial advantage to be gained by doing them.

Thus during the Second World War, a few days after Germany went to war against Russia, there was an attack against the city of Kaschau from the air. The Hungarian government examined the bomb frag-

ments and found that the bombs were of Russian manufacture. As we know today, the bombs were dropped by the German Air Force for the purpose of giving the impression that Russia was the attacker and thus inducing the Hungarian government to declare war on Russia. This ruse was successful, and Hungary declared war on Russia.

In certain circumstances one or another nation might conceivably be tempted to destroy an American city if it could remain unidentified, and if there were a reasonable chance that America would counterattack Russia.

It would seem likely that when the time comes, America, Russia and most other nations would act in concert in order to make sure that if a city were hit by a bomb the identity of the nation responsible for the attack would not remain secret. For this purpose, it would be necessary for the nations possessing submarines to agree that all submarines carry a team of international inspectors on board. In case of an atomic attack on a city, all submarines would then be called upon to "report" and the inspectors could then exonerate all innocent submarines from the suspicion of having launched the bomb.

It is too early to say whether the "security system" here described could be made sufficiently foolproof to be generally acceptable. I have tried to analyze the difficulties involved in an extensive article which appeared in the February issue of the Bulletin of the Atomic Scientists.

Clearly, as long as atomic bombs remain in the stockpiles the possibility of an all-out atomic catastrophe cannot be ruled out with absolute certainty. The only way to make sure that the bombs won't go off is to get rid of them. Would it be possible to get rid of the bomb, in the setting of general and virtually complete disarmament?

The Russian Government has now actually proposed that general and complete disarmament be put into force within a few years. No one knows for certain just how serious this proposal may be, perhaps not even the Russian Government itself. But however that may be, the time has come for us to ask ourselves in all seriousness:

1. Under what conditions would virtually complete disarmament lead to stable peace?
2. Is it likely that those conditions may be obtainable in the predictable future?

There are those who doubt that there would be any way of making sure that Russia would not retain a large number of bombs hidden away in secret.

In my opinion the difficulties of instituting safe-guards against secret evasions are grossly overestimated at present. These difficulties may appear to be almost insurmountable if one thinks in terms of drafting an agreement aimed at arms limitations to which America and Russia would be irrevocably committed, and which spells out in detail the measures of inspection to which they must submit. Conceivable evasions

are almost innumerable and, as time goes on, there might arise new ways of evading which were not previously apparent.

It lies in the very nature of an agreement providing for arms limitations that it can remain in force only as long as both Russia and America want to keep it in force. Therefore, it would be logical to say that Russia and America might just as well retain the right to abrogate the agreement legally - without cause, at any time. There would then be no need to spell out in the agreement any specific measures of inspection. Instead it would be understood that unless Russia is able to convince America that there are no major secret evasions on her territory, America would be forced to abrogate the agreement. The same holds, of course, in the reverse for Russia.

Could America and Russia convince each other that there are no major secret evasions?

This might prove to be a difficult task if the arms limitations do not go far enough, so that there remain important military secrets which need to be safe-guarded. But the difficulties disappear if the agreement is aimed at far-reaching disarmament and would thus create a situation in which neither Russia nor America need to safe-guard military secrets any longer.

America need not do much more perhaps, in such a situation, than to facilitate the pursuit of traditional forms of spying activities on American soil. If there are no military secrets left that need to be safe-guarded "spying" may become a legitimate and respectable pro-

fession and he who engages in it may be called a Plainclothes Inspector and might even sue for slander if anyone should call him a spy.

If there are no military secrets left to be safe-guarded Russia would presumably be willing to admit foreign inspectors in substantial numbers. I doubt, however, that by doing so Russia could succeed in convincing America that she has not hidden substantial stockpiles of bombs. If the Russian government wanted to hide bombs, as long as it had the whole-hearted co-operation of her scientists and engineers in such an endeavour, we could hardly be sure that foreign inspectors would be able to discover these bombs.

In my view, Russia could, however, convince America that there are no major secret evasions on her territory by adopting the following approach.

At the time when the agreement is signed and published, the President of the Council of Ministers would address the Russian people - and above all the Russian engineers and scientists - over radio, television and through the newspapers. He would explain why the Russian Government had entered into this agreement and why it wished to keep it in force indefinitely. He would make it clear that any secret violation of the agreement would endanger the agreement and that the Russian Government would not condone any such violations. If such violations, nevertheless, occurred, as they well may, they would have to be assumed to be the work of over-zealous subordinate agencies,

whose comprehension of Russia's true interests was rather limited. In these circumstances, it would be the patriotic duty of Russian citizens in general and Russian scientists and engineers in particular, to report any secret violations of the agreement to an International Control Commission. In addition to having the satisfaction of fulfilling a patriotic duty, the informer would receive an award of the order of \$1,000,000 from the Russian Government. Any recipient of such an award who wished to enjoy his wealth by living a life of leisure and and luxury abroad would be permitted to leave Russia with his family.

By repeating the same thesis over and over again, as the Russians well know how to do, the Russian Government could create an atmosphere which would virtually guarantee that Russian scientists and engineers would come forward to report secret violations. Naturally, it would be within the physical power of the Russian Government to have the "informer" arrested and shot, but such an action by the Russian Government could not remain secret and it would at once lead to an abrogation of the agreement.

This is what the Russian Government could do and as far as I am concerned I would not settle for less, nor ask for more.

Even though the main reliance could not be placed on foreign inspectors, foreign inspectors - even inspectors in uniform - would probably have a role to play. It is conceivable, for instance, that for a number of years there would be a team of such inspectors carried on board every Russian as well as American ship and 'plane capable of

transporting illicit bombs across the Atlantic or the Pacific.

To my mind the issue that may be in doubt is not whether general and virtually complete disarmament is feasible, but rather to what kind of a world it would lead.

The world would be rid of the bombs, and warships, tanks, as well as other heavy mobile equipment would disappear also. Presumably, no attempt would be made to control machine guns, and armies equipped with machine guns could be improvised, so to speak, overnight. Neither Russia nor America could be invaded by such an improvised army and these two nations would certainly be militarily secure. But what about the security of many other nations?

Some sort of highly mobile international police force armed with light tanks could perhaps keep the peace in certain regions of the world - in the Middle East for instance and in Africa - but no international police which could coerce America or Russia is likely to be acceptable in the predictable future. Nor is it likely that a nation like, for instance, Poland could be protected by international police, if 25 years hence an improvised German army, equipped with machine guns were bent on reconquering the territories which Germany lost to Poland.

Economic sanctions could effectively coerce most nations, with the notable exception of America and Russia. But how sure could, say, Poland be that economic sanctions would be applied against Germany if the nations applying economic sanction would suffer a loss as great

as the loss which they would inflict.

Could a nation, like Poland for instance, protect herself by building a fixed line of defense, as sort of Maginot Line along the German frontier? Certainly, the Maginot Line would have withstood a mass assault had the attacking German army been equipped with machine guns only, and even improvised trenches when properly built might represent a formidable obstacle to a machine gun assault. But what about troops which might be parachuted down behind the fixed defense line?

My tentative conclusion is that if America and Russia were willing to remain indifferent to changes which might be brought about by force, changes which in a world virtually completely disarmed would not affect their own security, progress towards general and virtually complete disarmament could be very fast.

But if disarmament is acceptable to America and Russia only within the setting of a world security system that protects all nations and so to speak freezes the map, then general and complete disarmament is not in sight.

The map as it is today would be rather difficult to freeze, in part because of the rather arbitrary arrangements which the great powers made after the war and which were meant to be temporary. Even if the nations were to agree now to freeze it, there would be no assurance that they would want to keep it frozen very long. If it were possible to rearrange the map through a political settlement, perhaps it might be possible to freeze the revised map and have some confidence

that it would remain frozen. No such political settlement is under discussion at present, however.

For these reasons, I conclude that, if America is willing to have general and virtually complete disarmament, even in the absence of a world security system that would protect all nations, then we ought to lose no time in negotiating a formal agreement with Russia and the other nations involved that will provide for far-reaching disarmament.

Contrariwise, we must reconcile ourselves to the fact that America and Russia will have to live with the bomb within the predictable future. In this case, there is not much point in entering into informal conversations on a number of different levels, including on the governmental level which might lead to a meeting of the minds between America and Russia on just what it would take to live with the bomb and yet avoid an all-out war which neither of them want.

Albert Einstein

Amersfoort with
Auber Dec / 61

In Chicago

Hassel Korn

Geithusdick

Lam Weiss (Kunradly
Heiner (Auber, Lippman)
Brochem)

Ben Hall (with Sprugel -

John Appoldman

(Columbia Dept of Chem)

Apergard / James

Reheff. Dist

Lippman

Sal