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Box III

ON DISARMAMENT

by

Leo Szilard

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INSPECTION

The difficulties of the problem of "inspection" appear to be almost insurmountable only because this problem is approached in the wrong way. People have become accustomed to think in terms of a foolproof treaty which would spell out in detail the measures of inspection that would be imposed on the United States, the Soviet Union and the Peoples' Republic of China, as well as the other nations involved.

Most of those who adopt this approach fail to realize that, even if it were possible to draft such a treaty, it would take many years to do so. I personally do not believe, however, that it is possible to draft such a treaty, for no treaty which might be drafted could make provisions for every secret evasion which is at present foreseeable and new ways of evading such a treaty might be developed as time goes on.

One may be led to constructive approach to the problem of "inspection" by recognizing that no treaty providing for disarmament could remain in force, and that any one of these three nations would be able to sabotage the operation of the treaty, without having to resort to open violations of the treaty. Any one of these three nations can withdraw from such a treaty if it wishes to do so.

It follows that if Russia, China, and America enter into a treaty providing for far-reaching disarmament which they wish to keep in force, on account of the great benefits which they derive from disarmament, then it will be necessary for them to convince each other that they are not secretly violating the treaty, because unless all three nations can be convinced of this, one or the other of them may withdraw from the treaty.

As far as these three nations are concerned, the treaty need not say anything about measures of inspection that may be imposed upon them. Instead, the treaty needs explicitly to recognize that any one of these three nations can halt or reverse the disarmament process if it cannot be convinced that the others don't secretly evade the agreement.

Naturally, it would serve no useful purpose for America, Russia, and the Peoples' Republic of China to enter into such a treaty, unless they first reach a meeting of the minds on the means that may be available to them for convincing each other of the absence of secret evasions. But the means that, say, America may choose in order to convince the Russians and the Chinese that she does not secretly evade the agreement need not be the same as the means that, say, the Soviet Union may choose to convince the Americans and the Chinese.

That a certain amount of inspection would be needed is, of course, a foregone conclusion. I do not believe, however, that inspection is the answer to all of our problems. In particular, I do not believe that foreign inspectors, even if admitted to Russian territory in virtually unlimited numbers, would be able to find bombs and rockets if the Soviet Government wanted to hide such bombs and rockets.

In a discussion which I had with N. S. Khrushchev, Chairman of the Council of Ministers of the U.S.S.R., on October 5, 1960, the question came up whether the Soviet Union would be willing to create conditions in which America could rely on Soviet citizens in general, and Soviet scientists and engineers in particular, to report secret violations to an International Control Commission. On the basis of that discussion and extended private conversations which I had on this subject during December of last year in Moscow, I am now convinced that the Soviet Union would be willing to give serious consideration to this possibility.

I should make it clear at this point, however, that we are dealing here with two questions:

- a) Would the Government of the Soviet Union be willing to create such conditions?
- b) Assuming that the Government of the Soviet Union is willing to create such conditions, would she be able to do so?

I made a considerable effort to clarify in my own mind, this second point, but I cannot say that I have reached a final conclusion. Still, I have reached the stage where I can say that by exploring this point further, a final and favorable conclusion could probably be reached.

We may envisage that after a treaty providing for general disarmament is concluded and goes into effect disarmament will progress step-by-step. Presumably there will be a First Period during which there still may be military secrets left that would need to be safeguarded. But we may assume here that this would no longer be necessary after the end of the First Period and that, from that point on, all-out inspection would be acceptable to all nations.

Presumably a disarmament agreement would set a limit to the number of bombs which each nation may retain at the end of the First Period, when all-out inspection goes into effect. How could America, from that point on, reassure Russia and the other powers of the world that she has not illegally retained, and hidden in secret, bombs in substantial numbers?

One way of accomplishing this would be for the President of the United States to address the American people over television, radio and through the newspapers. He would explain why the American Government had entered into this agreement, and why it wished to keep it indefinitely in force. He would make it clear that any secret violations of the agreement might lead to an abrogation of the agreement by the Russians or the Chinese, and that the American Government would not condone such violations. The President would admit violations might occur, and state that if they did occur, they would have to be regarded as the work of over-zealous subordinate governmental agencies, whose comprehension of America's true interests and purposes were rather limited. The President would make it clear that, in these circumstances, it would be the patriotic duty of American citizens in general, and of American scientists and engineers in particular, to try to discover such secret violations of the agreement, and to report them to the International Control Commission. In addition to having the satisfaction of fulfilling a patriotic duty, the informant who discloses a major violation of the agreement would receive an award of one million dollars from the President's Contingency Fund. The President would announce that no income tax would be levied on such an award, and that the recipient of such an award, who wishes to enjoy his wealth by living a life of leisure and luxury abroad and would want to leave America with his family, would not be hampered by currency restrictions in transferring the award abroad.

This system ought to work well in America. It has the drawback, however, that if no bombs were hidden, it would be frustrating for people to keep looking for bombs and to never find any. Vigilance might soon cease, in such circumstances.

Moreover, the system would probably not set an example that could be blindly followed, say, by the Soviet Union. If the Chairman of the Council of Ministers of the Soviet Union were simply to follow the example of the President of the United States and say that bombs might have been secretly hidden in the Soviet Union by over-zealous subordinate agencies, acting against the orders of the Soviet Government, people in the Soviet Union might not know what to make of this. They might find it difficult to believe that any subordinate agency would act against the orders of the Soviet Government.

In view of all this, it might be better for America to choose a somewhat different system for the purpose of assuring other nations that no bombs or rockets were illegally hidden. Such a system may be represented by a "game" of the following kind: America would hide, during the First Period, a certain number of bombs and rockets. For this purpose, the Government could appoint small committees composed of three to seven men and each such committee could be assigned the task of hiding a bomb or rocket. These committees would be permitted to lie, to cheat and to threaten, and to do whatever is within their power to keep the location of the hidden bombs or rockets secret. They would be free to tell gullible citizens that it was necessary to keep such rockets or bombs hidden because the Government had received secret information that bombs and rockets are being illegally hidden in substantial numbers by other governments. As an incentive for doing a good job the members of these committees would receive, each year, a bonus equal to their regular salaries, and they would continue to receive these bonuses as long as the bomb or rocket which they had hidden, remains hidden.

Whenever a bomb or rocket was hidden by one of the committees appointed for the purpose, the committee would prepare a protocol describing the circumstances under which the bomb or rocket was hidden, and the measures adopted for keeping it hidden. The Government would place each such protocol in a sealed envelope, carrying a code number, and would deposit it with the International Control Commission. In addition, the Government would deposit with the Control Commission a number of similar envelopes, each bearing a code number, but containing merely an empty sheet of paper.

From time to time, the President of the United States would appeal to the American people to participate in the game, and thus to help convince other nations that no bombs or rockets were illegally hidden in America. He would point out that it was the patriotic duty of all citizens to try to discover the bombs or rockets, which have been hidden. A substantial reward would be paid to those who report to the International Control Commission the location of a hidden bomb or rocket.

Each time the Control Commission receives such a report, the U.S. Government would give the Control Commission the code number of the envelope which contains the protocol that describes the hiding of the particular bomb or rocket. As long as no bombs or rockets were hidden -- except as a part of the "game" -- each bomb or rocket discovered would be covered by a protocol describing how that particular bomb or rocket had been hidden.

Other nations could, from time to time, check on how effective the American citizenry was in reporting bombs and rockets that were hidden in America, by selecting at random, say fifty envelopes deposited by the American Government with the International Control

Commission, and thus determining what fraction of the envelopes contained a protocol relating to a hidden bomb or rocket, rather than an empty sheet. On the basis of checks of this type performed from time to time, it should be possible to estimate how long a bomb or rocket hidden in America may be expected to remain hidden.

If the American Government wanted to hide bombs and rockets outside of the "game", it would not deposit with the International Control Commission protocols with respect to these bombs or rockets. The probability of discovering bombs and rockets that were hidden outside of the "game" would, however, be just as great as the probability of discovering rockets and bombs which were hidden as part of the "game". Thus, if the American Government intended to violate the agreement by secretly hiding bombs and rockets outside of the "game", it could do no better than it was doing within the framework of the "game".

If the "game" showed that bombs and rockets might remain hidden for one or two years, but rarely any longer, then the nations need not fear that some governmental agency would risk hiding bombs or rockets outside of the "game".

In a state of virtually complete disarmament, the United States would have no military secrets left that need to be safeguarded. In these circumstances, America might choose to permit other nations to employ American citizens as plainclothes inspectors whose identities are not known. The task of these plainclothes inspectors would be to move about unobtrusively in American territory and try to discover secret violations of the agreement that might have escaped the notice of the citizen at large. Such inspectors would carry a badge and it would be understood that they would be immune from arrest.

One may perhaps ask: What is the difference between a plainclothes inspector whose identity is not known to the Government and a spy? Today a foreign agent operating in America as a spy, serves the interest of a foreign government, as well as his own interest; he does not serve the interests of America. But, in the conditions which we envisage here, a plainclothes inspector, operating on behalf of a foreign government on American territory, would serve the interests of America, as well as the interests of the foreign government. He would be part of the means chosen by America for the purpose of convincing foreign governments that there are no secret evasions of the disarmament treaty on America territory.

If there is any apprehension that such plainclothes inspectors might be foreign agents, engaged in trying to subvert America rather than trying to discover secret violations of the disarmament agreement, America could obtain assurance on this point in the following manner: The plainclothes inspectors, in the employ of foreign governments,

might be required to register with the International Control Commission and the International Control Commission in turn might be required to disclose each year the identity of a small number of such inspectors, selected at random. These inspectors could then be placed under surveillance by the FBI for the purpose of determining whether any of them were engaged in subversion, instead of pursuing their legitimate "spying" activities.

It is my belief that even though a few bombs and rockets might be hidden by one nation or another it would be impossible for any nation to maintain -- under a reasonable system of inspection -- a bomb delivery system in operation that could endanger any of the great powers.

Bombs could be delivered from one continent to another, by almost any commercial aircraft capable of crossing the Atlantic or the Pacific. But if any nation were to fear that this might be done, such fears could be alleviated by assigning a team of, say three inspectors to any such aircraft and such a team could be carried on board every flight. The expense involved in the subjecting of all aircraft to this type of inspection would be negligible.

It has been proposed that America, Russia and perhaps some other nation might want to retain a small number of bombs, as an insurance against being attacked by means of bombs that other nations may have retained in secret. It is my contention that once a reasonable inspection system has been in operation for a few years, the number of bombs that nations would need to retain, as an insurance, would be set very low.

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- Chapter 1 - Inspection
- Chapter 2 - The Securing of the Peace
- Chapter 3 - Political Settlement in Europe
- Chapter 4 - Treaty Providing for Far-Reaching Disarmament
- Appendix - Living With the Bomb

Chapter 1

Inspection

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Chapter 2

The Securing of the Peace

We may assume that virtually complete disarmament would mean the elimination from the national armament of all atomic weapons, all other heavy mobile weapons such as heavy tanks, guns, etc., as well as the dissolution of all standing armies, navies, and air forces, etc.

In such a virtually disarmed world machine guns would presumably still be available in essentially unlimited quantities and might be freely transported legally, or illegally, across national boundaries. Thus armies equipped with machine guns could spring up, so to speak, overnight.

The security of the Soviet Union, the United States, and the Peoples' Republic of China would not be directly threatened by such improvised armies, for the forces maintained in these countries for purposes of internal security, even though they may not be equipped with anything heavier than machine guns (and perhaps light tanks), could be bolstered by militia, and should be capable of repelling an attack by an improvised army equipped with machine guns.

These three nations would presumably also remain strong enough to extend military protection to their neighbors. But it would no longer be possible for America to extend military protection against Russia to nations located in the geographical proximity of Russia, or Russia to extend such protection to countries located close to America, etc.

Since today America is committed to the defense of countries lying in the geographical proximity of Russia and China, she can accept general and complete disarmament only if she can extricate herself from her existing commitments. In order to make it possible for America to do this, it might be necessary to devise political settlements which she could accept without loss of prestige and without doing serious damage to the vital interests of the other countries involved.

Before dealing with the question to what extent and in what sense small countries located in the geographical proximity of America, Russia or China, might remain secure from military intervention on the part of their powerful neighbor, we shall first address ourselves to a series of other issues.

If the world were disarmed today down to machine guns, we would have a rather unstable situation in a number of disturbed areas of the world where political tensions are acute. Armies equipped with machine guns could be improvised in such disturbed areas and if a nation were attacked by its neighbor it might appeal to America or to Russia for help. In such circumstances America and Russia might be tempted to rearm and to intervene on opposite sides. Clearly it is necessary to devise means for securing the peace in the disturbed areas of the world.

Peace might be secured one way or another by maintaining an international armed force in every such disturbed region. It is well to keep in mind, however, that the main purpose of disarmament is to abolish war, and if this purpose is to be achieved then the armed forces maintained in the disturbed areas must not be armies that would resort to war against some offending nation located in the region, but rather they need to be police forces. These forces must be organized in such a fashion that they should have both the power and the capability to arrest individuals in general, and officials of an offending national government in particular. We may envisage that they would be standing, professional forces.

Assuming that the nations of the area are disarmed down to machine guns, then in order to be able to restrain the national police forces from protecting individuals against arrest the international police force need not be equipped with any weapons heavier than light tanks.

How should these international forces be controlled? A centrally controlled world police force with the Secretary General of the United Nations acting as Commander-in-Chief, would not be acceptable to Russia in the circumstances which prevail today, and it might not be acceptable to America in the circumstances which might prevail a few years hence. It might well be that as long as we think in terms of a single, centrally controlled, world police force, none of the control mechanisms that might be devised would prove to be acceptable to both America and Russia.

Perhaps instead of thinking of a centrally controlled police force we ought to think in terms of maintaining a separate regional force for each disturbed region. Each such regional force could then be controlled by a different commission, composed of representatives of between five to seven nations, which would preferably not be drawn from the region itself.

Such regional police forces could operate under the auspices of the United Nations, and each region's commission could then be appointed with the majority vote of the Security Council, including

the concurring votes of the permanent members. Alternatively, the regional police forces could operate under the auspices of an International Disarmament Administration and the different slates of nations which make up the commission for the different regions would then be appointed by a majority of the High Council of the International Disarmament Administration, with the concurring votes of the permanent members. We may envisage that America, Russia and China would be permanent members of the High Council.

I do not believe that very much would be gained were the great powers merely to agree to set up regional forces in all disturbed areas, with a different commission in charge of each regional force. Rather, it would be necessary for the powers to enter into negotiations with each other, at an early date, in order to discover as soon as possible whether they would be able to select different slates of nations for the different regional commissions, without seriously risking a veto when the slates came up for approval before the Security Council or the High Council of the Disarmament Administration.

As a first step, America and Russia might explore in informal discussions whether they could select slates for all the disturbed regions of the world and agree that neither of them would veto these particular slates. Obviously, there is room for quid pro quo in a negotiation of this sort. Even if Russia did not particularly like a slate favored by the United States, say, for the region of Central America, she might agree not to veto that slate provided America would not veto some slate which Russia favors, say the slate for the region of the Middle East.

That a region might become a sphere of influence for one or other of the great powers cannot be excluded with absolute certainty, but this danger could be minimized by prudent selection of the slates of nations for the various regions. Thus, for instance, if the slate for the region of Central America were to consist of Canada, Australia, Uruguay, Denmark and Austria, this would not mean that Central America would be within the sphere of influence of the United States, but it would mean that Central America would not be within the sphere of influence of the Soviet Union.

As far as the great powers are concerned, an agreement among them on the selection of the commissions which control the various regional police forces would be tantamount to a political settlement, with respect to these regions.

The commissions in charge of the various regions would be undoubtedly pledged to refrain from intervening in the internal affairs of any nation of the region, but the possibility that they might

intervene could not be excluded with certainty. If, in the course of fulfilling their proper and legitimate function, a regional force were impelled to arrest the leading members of the government of an offending nation, then the regional commission might be forced to take over the government of that nation, for a shorter or longer period of time. I do not believe that it would be possible to devise a workable system which could exclude under such circumstances any abuse of power on the part of the commission of the region. But it may be possible to devise various means through which an abuse of power could be discouraged.

Thus, for instance, a regional peace-court may sit in permanence in each region where a regional police force operates and habeas corpus proceedings might then be instituted on behalf of any individual before such a court. The fact that such a court could not itself enforce its rulings would set a limit to the protection that it may be able to extend to the citizens of the nations, located in the region.

We may envisage that the operations of the regional police forces would be financed through dues, paid by all nations who participate in the disarmament agreement, to the regional commissions. We may further envisage that there would be provided financial inducements for an individual citizen to pay his dues directly to one or the other of the regional commissions, rather than indirectly (through paying a special tax to his own government). The individual citizens, as well as the national government, may be left free to shift, within certain limits, their dues from one regional commission to another.

Each regional commission may under such a system receive a financial contribution toward the operating cost of the regional force, in an amount that would lie, say, between 80 per cent and 120 per cent of that cost. If a given regional commission, and the corresponding regional police force, operates to the satisfaction of the governments of most nations, as well as their citizens, it should be able to count on receiving 120 per cent of the operating expenses, i. e., the commission should be able to count on making a profit, in the amount of 20 per cent of the operating expenses.

In contrast to this, if the governments of many nations or their citizens were to hold that the commission of a given region abuses the power with which it is invested, they might divert their dues to other regions and the dues received by the "offending" commission could fall to 80 per cent of the operating expenses of the regional force. Thus if many people were to hold that the commission in charge of a given region abuses the power with which it is invested, that commission would suffer a financial loss.

Under the system described above, the financial loss would be limited to 20 per cent of the operating costs of the regional police and it would not be possible to cut off completely the financial support of the regional police force, even if a substantial majority of nations, and their citizens, were to disapprove of the conduct of that regional force.

Any regional commission could of course always be replaced, provided it were possible to select another slate of nations which could command a majority vote in the High Council with the concurring votes of the permanent members. Accordingly, if a commission for a region were to abuse its power, it might or might not be possible to replace it, depending on whether the permanent members were to act in concert to this end or were to disagree with each other.

The system of control of the regional police forces outlined above is aimed at securing peace with justice, but it takes into account that peace with justice might not be obtainable in every case and that we may have to choose between peace and justice. The system of control outlined above favors peace over justice, in cases where these two goals cannot be reconciled.

Prior to Second World War, it would have been possible to argue, when faced with such a choice, in favor of justice rather than peace. But these days, a strong argument can be made in favor of the opposite choice, particularly if it is doubtful whether justice would be attainable either without, or with, war.

It would not be practicable to maintain a regional police force in Europe, strong enough to restrain the national security forces of, say, Germany or France, from protecting individuals against being arrested by the regional police.

It is probably true that, in order to secure the peace in Europe, it would be necessary to have political settlements that would leave no nation in Europe strongly motivated by its vital national interests to resort to force. If there is an adequate political settlement in Europe, even though it might not fully satisfy all major national aspirations, the nations in Europe might be restrained from resorting to force, if they greatly benefit from disarmament because if there were a resort to force, this would put an end to disarmament.

The problem posed by the nations of Europe is posed even more sharply by the United States, the Soviet Union, and the Peoples' Republic of China.

At the end of the last war the nations were faced with the task of setting up some machinery that would secure the peace. It was generally believed that it would be impossible to devise any machinery that would be still capable of securing the peace if one of the great powers refused to cooperate to this end. Therefore, those who

drafted the Charter of the United Nations set themselves the more limited objective of setting up a machinery which would be capable of protecting the smaller nations, with the cooperation of the great powers.

In order to preclude a head-on collision between the United Nations and one of the great powers, the great powers were given permanent seats on the Security Council, carrying the right to veto.

Attempts to use the machinery of the United Nations for purposes other than for which it was intended, have weakened this organization, but nevertheless it is probably true even today, that given great power cooperation, it could effectively restrain the smaller nations from resorting to force against each other.

It is my contention that if the world were disarmed it would still be possible to set up machinery for the protection of the smaller nations against each other. But what machinery could be established, that would effectively protect a small nation against an adjacent big power, such as the Soviet Union, the United States, or China?

One may first of all ask in what sense would--in the absence of such machinery--the countries lying in the geographical proximity of the Soviet Union, China, or the United States be secure from a military intervention, on the part of their big neighbors? Knowing that they cannot look for military protection to any geographically distant nation, it is likely that the countries located adjacent to one of these three giants would readjust their behavior and would try and lessen the incentives for a military intervention by their neighbor. Clearly, Finland is in no danger of a military intervention from Russia today, nor is Mexico in danger of a military intervention from the United States, but this is so only because Finland and Mexico refrain from any actions that might provoke such a military intervention. Because disarmament, once it is established, would prove to be of very great benefit to them, America, Russia, and China might refrain from resorting to force--even when confronted with a certain degree of provocation--for fear that this would bring disarmament to an end.

Would this be enough of a restraint or would it be necessary to go further? And how much further would it be possible to go?

In discussing the securing of peace in a disarmed world, one hears frequently the demand that there shall be set up an International Security Force of sufficient military power to overcome any nation, or group of nations, which attempts to use military force against any other nation.

I believe the time has come to grab this bull by the horns and look it in the eyes:

It is my contention that it would be physically, economically, and politically impossible to create and maintain a force that would have such military power except if that force were equipped with atomic bombs. It is further my contention that if such a force were equipped with nuclear weapons, then there would be no politically acceptable solution to the issue of how that force should be controlled.

Is there, then, any way in which nations like America, Russia, or China could be restrained in a disarmed world from resorting to force?

It is my contention that, if these great powers were willing to be restrained, it would be possible to set up a system that would exert a measure of restraint that might be sufficient in a conflict in which a minor or perhaps even a substantial national interest is involved. But even if America, Russia, and China were willing to go very far in this direction, it might still be impossible to devise a practicable system that would effectively restrain any one of them in a conflict involving a very major national interest, or the very existence of the nation.

Accepting this limitation, we may now examine what kind of restraints might be possible, assuming that America, China, and Russia would be willing to institutionalize such restraints.

After the Second World War an abortive attempt was made to define "crimes against peace" and to hold individual Germans and Japanese who committed such crimes responsible for their actions.

A system in which only such individuals can be brought to justice whose nation is defeated in war would hardly exert much restraining influence, for no nation starts a war if it considers it likely to lose that war. But let us suppose now, for the sake of argument, that the nations, including America, Russia, and China, were to set up a World Peace Court by treaty and were to define by treaty a set of laws--restricted to crimes against peace--broad enough to cover the advocating of a war or invasion, in violation of the United Nations Charter, or the provisions of the disarmament agreement.

To what extent, and in what sense could such laws, applicable to individuals, exercise restraint, say, on American citizens, if the United States were, for instance, tempted to improvise an army equipped with machine guns, and to invade Mexico, in order

to unseat a legally elected Communist government?

Presumably the possibility of such an invasion would be publicly debated in the American newspapers, with some editorial writers in favor of such an action and others opposed to it. Presumably the issue would also be debated in the high councils of the Government, with occasional leaks to the press, disclosing the stand that the Secretary of State and various advisors to the President were taking on the issue. Could the Peace Court step in at this point and summon into its presence some of the individuals involved where they would stand accused of a Crime against Peace?

The Court would be in no position to arrest Americans who may be summoned to appear in Court and who may refuse to appear, if such individuals enjoy the protection of the American police (or other American security forces) and were America seriously to contemplate invading Mexico, such protection would be likely to be forthcoming.

It is my contention that the only way to make the Court effective in such a contingency is to empower the Court to impose the death penalty for failure to appear in Court, when summoned. Such a death penalty imposed by the Court might not be meaningless even if there were considerable doubt whether it could ever be executed.

In the Middle Ages, when the Catholic Church had no power to execute a death sentence, it still could and did pronounce death sentences by outlawing certain individuals. Anyone could kill such an outlaw and be absolved by the Church.

The Court passing the death sentence, for non-appearance in court, on American citizens in general, or officials of the Government in particular, might not be in a position to execute the sentence but it would remove the moral inhibition that normally protects the lives of all individuals.

The Court could deputize any and all American citizens to try and execute the sentence. An American citizen killing an "outlaw" could not be legally tried for murder in an American court, inasmuch as the treaty setting up the Court would be the law of the land. This does not mean that an American citizen executing the judgment of the Court would be likely to escape alive; he might be lynched by a mob, or be killed by the police "while attempting to escape."

In addition to "relying" on American citizens thus deputized, the Court could employ perhaps 500 to 1,000 marshals. These "international marshals" could be drawn from all nations. It would be the duty of the marshals to try to execute the death sentences imposed

by the Court, Because they might lose their lives in attempting to do so, it would be necessary to assure their families a high financial compensation in case they come to harm in the course of performing their duties. Obviously, it would be advisable for the marshals to reside with their families outside of their country of origin.

The Government might provide bodyguards for those Americans who are under a death sentence of the Court and it is, therefore, difficult to predict how often, if ever, such a death sentence could be carried out. But Americans tempted to commit a Crime against Peace would be restrained by the fear that if they are summoned before the Peace Court, refuse to appear and are condemned to death, then from thereon, they would have to be accompanied by a bodyguard, no matter where they may go.

It need be no serious handicap for a government official to be accompanied by a bodyguard if he goes to attend a meeting of the National Security Council. But officials are human beings and a bodyguard would be a serious encumbrance to them in their private life, even while holding office. It would be an even worse encumbrance when they cease to hold office.

At present, there is a strong moral inhibition against political assassinations. In the absence of such moral inhibition, England and France could have arranged to "eliminate" Nasser without having to resort to an armed attack against Egypt, and the C. I. A. could have arranged for the "elimination" of Castro without having to mount an invasion of Cuba by Cuban exiles.

An argument could be made in favor of exempting heads of states and prime ministers from any death sentences that may be passed by the Court, on the ground that if such men were sentenced to death for non-appearance in court and were subsequently killed, this would weaken the prevailing moral inhibition against political assassination. Another argument could be made in favor of such an exemption on the ground that America, Russia, and China might be more likely to enter into a treaty setting up a Peace Court, and adequately defining crimes against peace, if heads of state and prime ministers were exempt from the jurisdiction of the Court. At this juncture it would be difficult to say whether these arguments should be permitted to prevail.

The Peace Court would not be a court set up for the settling of legal disputes among nations. It would be a criminal court and its jurisdiction would be limited to "crimes against peace." The members of the Court should be appointed for life.

The Court could be composed of twelve justices. Guilty verdicts might be made to require eight votes out of twelve. The members of the Court could be elected by majority vote of the Security Council from a list of eligible judges. In order to be eligible a man would have to be a member of the highest court of the next lower court, or be at the Head of a law school in his own country. In order to be eligible, the institution with which he is affiliated in his own country must have been in operation for twenty-five years. Also he would have to speak fluently one of the languages specified in the treaty setting up the Peace Court.

The composition of the Court would be balanced at any time in the sense that an equal number of judges would be drawn from three lists of nations, the list being spelled out in the treaty setting up the Peace Court.

Chapter 3

Political Settlement in Europe

If one of the nations of Europe, Germany for instance, were strongly motivated to resort to force in a generally disarmed world, the means for the securing of peace, discussed above, would be wholly inadequate for restraining her.

As long as there are two completely unrelated German States in Europe, the unification of Germany is likely to emerge sooner or later as a rather explosive issue, because it represents a political objective on which all Germans may unite.

It has been repeatedly proposed that the two German states be united on the basis of free elections, that Germany renounce the recovery of the territories lost to Poland, and that all the great powers join in guaranteeing the Oder-Neisse Line.

The unification of Germany in the near future on the basis of free elections may not be politically acceptable. Moreover, it is open to doubt that the unification of Germany on this basis would offer a substantial guarantee of stability in Europe.

If Germany were thus united, it might not take long until the recovery of the territories lost to Poland would emerge as an explosive issue because it would represent a political objective on which all Germans may unite. The majority of Germans might be rather indifferent to this issue, but a minority who have strong feelings on the issue would be likely to become the politically controlling factor. Presumably there would be two major political parties contending for the majority in parliament and they would be impelled to compete for the vote of this minority.

Guaranty of the Oder-Neisse Line by America would be meaningless, since in a generally disarmed world America would be in no position to render military assistance to Poland, even if she were inclined to do so. In the absence of far-reaching political integration of Western Europe, the other Western European nations would be in no position politically to restrain Germany. Nor would they be likely to render military assistance to Poland against Germany, even in contingencies where they might be legally obliged to do so.

In these circumstances I do not believe that recognition of the Oder-Neisse Line by the powers either now, or at the time when Germany might be unified, would really settle the issue of the

territories that Germany lost to Poland.

These days one frequently hears in Germany that the recovery of the territories lost to Poland is a major political objective, but that it must not be accomplished by the use of force. This, of course, is a meaningless statement, as long as there is no way of accomplishing the return of these territories, except through the use of force.

The situation would be different if it were politically possible to create a united Germany, and if it were politically possible to give such a united Germany an option to recover from Poland step-by-step strips of territory--by paying a compensation of, say, \$20,000 to each Polish family that would have to be relocated. Even if the compensation were set considerably higher, it would be cheaper for Germany to pay such compensation than to resort to force. If the compensation were set high enough, Germany might not take up the option, because the political party in office would have to weigh the popularity it would gain by purchasing territories from Poland, against the popularity it would lose by financing such purchases through increased taxation. Thus, if the compensation were set high enough, the Germans might not take up the option, but whether they did or did not, the option might still eliminate the issue of the recovery of territories lost to Poland, as a major element of political instability, from the European scene.

The unification of Germany on the basis of free election does not appear to be a politically acceptable solution in the near future. In a generally disarmed world, there would not arise the issue of whether such a united Germany would be militarily in the Western camp, but there would still remain the issue of whether state ownership of all means of production would be preserved in East Germany if Germany were united.

This problem could perhaps be solved if, instead of contemplating unifying Germany through free elections, we were to envisage a more or less loose federation between the two German states, as has been, once before, proposed by East Germany.

In this case the treaty setting up the federation could guarantee state ownership of the means of production in East Germany for, say, fifty years. Such a federation of the two German states might gradually evolve the direction of greater federal control, without touching the socialistic economy of Eastern Germany. If a number of years after the federation was established there were free elections in Germany, the Social Democratic Party might pledge the preservation of the socialistic economy of Eastern Germany and might be voted into office on this basis.

It is conceivable that maintaining a socialist economy in Eastern Germany would provide Germany with a buffering capacity, in case of depressions that might hit the free economy of the Common Market, and thus give the economy of Germany a flexibility not possessed by the other nations of Western Europe. It is further conceivable that it would become politically possible for Germany to obtain an option for the purchase of territories lost to Poland, if these territories were added to the state-controlled economy of Eastern Germany rather than to the free market economy of Western Germany.

At this point, one may ask whether one could not stabilize Europe without having to make provisions for the possibility of returning to Germany territories she had lost to Poland. One may also ask whether one could stabilize Europe, without uniting Germany on the basis of free elections, or even without setting up a federation between the two German states.

I believe that Europe might be stabilized even in such a case, but only if the economic integration of Western Europe which is now in progress were to be accompanied by a far-reaching political integration of Western Europe. In case of a far-reaching political integration Germany could be politically restrained, by the other nations of Western Europe, from pursuing national aspirations that would run counter to the interest of these nations.

The chances of a far-reaching political integration of Western Europe cannot be appraised, however, at the present time, with any degree of assurance. At the time of this writing France has not yet solved her colonial problems. No one can tell today whether if DeGaulle were to die the French army might not take over and establish a Fascist regime. This might even happen while DeGaulle is alive. If such a change were to take place in France, would there emerge a Fascist Franco-German alliance or would the old enmity between Germany and France flare up again and block the integration of Western Europe?

I propose to assume here, for the sake of argument, that within the predictable future the crisis in France will be resolved in favor of a return to parliamentary control and that Western Europe will continue to move toward economic integration. On this basis, I propose to examine what the chances might be for a far-reaching political integration of Western Europe.

It is usually assumed that such a political integration could be achieved through the creation of super-national agencies and the step-by-step delegation to such agencies of sovereign rights of the individual nations.

I venture to predict that there will be no substantial progress along this line, in the predictable future, toward political integration of Western Europe. Western Europe might conceivably move, however, toward political integration through an entirely different route.

There could be a limited representation in the parliament of each Western European nation of the other Western European nations. In each case "foreign representation" in the parliament could start very low, say, at a few per cent of the seats and increase step-by-step until it reaches perhaps 20 per cent or 25 per cent of the seats.

Such a limited "foreign representation" in each of these parliaments would correspond to the actually existing interdependence among the nations of Western Europe. It would not affect the voting strength of the extreme left parties in the parliaments of Europe. It would, however, decrease the influence of the extreme right-wing parties, because the representatives of these parties of two neighboring nations would be likely to vote on the opposite side of the explosive controversial issues.

Only if political integration goes along with economic integration would the nations in Western Europe be able politically to restrain each other from pursuing their individual nationalistic aspirations which might endanger the peace.

At the time of this writing, the so-called Berlin crisis occupies much public attention. If we assume that the goal is to maintain stability in Europe, in a disarmed world, then it becomes possible to put forward reasoned argument in favor of one or another "solution" of the problem posed by Berlin.

A "Letter to the Editor," which is attached, illustrates how such reasoned arguments might be applied to this problem.

The Berlin Crisis

Extension of Remarks of Hon. John Sherman Cooper of Kentucky,
in the Senate of the United States, Wednesday, July 5, 1961.

Mr. COOPER: Mr. President, I ask unanimous consent to have printed in the Appendix of the Record an article on the Berlin crisis, written in May, 1960, by Dr. Leo Szilard, of the University of Chicago.

There being no objection, the article was ordered to be printed in the Record, as follows:

(From the Bulletin of the Atomic Scientists, May, 1960)

The Berlin Crisis

Dear Sir: Whether in the so-called atomic stalemate America and Russia may succeed in avoiding the war which neither of them want, will depend on a number of factors which are involved. It seems certain, however, that the stability of the stalemate would be enhanced if the great powers were to reach an understanding on the necessity of freezing the map for an extended period of time. It might be somewhat difficult to freeze the map as it stands at present, because it includes a number of arbitrary arrangements which were meant to be temporary, and perhaps it would be easier to freeze the map after certain readjustments have been made.

Those readjustments which may at present be negotiable are of necessity rather modest ones, but they might represent a first step in the direction. Let us take the Berlin issue, for instance. Russia once proposed that there be established a loose federation between the West German state and the East German state. I suppose this would mean the setting up of a Federal Council with an equal number of delegates from West Germany and East Germany. Presumably, the delegates from East Germany would represent the Government of the East German state, whereas the delegates from the West German state might either represent the Government of the West German state, or else they might be elected, by the Bundestag perhaps, or directly by the citizens of West Germany. Presumably, the ground rules of the Council would provide that it could take action only with the concurrence of 75 per cent of the delegates. This rule would insure that action taken by the Council had the support of the majority

of the delegates of both the West German state and the East German state.

There are enough issues on which the interests of West Germany and East Germany coincide to keep such a Federal Council busy and effective for many years to come--in spite of the severe restrictions imposed by the ground rules.

We may assume that, if such a loose federation between the two German states were established, there would be no bar to the migration of Germans within the federation. In order to keep migration to West Germany within tolerable limits, the government of East Germany would have to eliminate those restriction which have in the past caused their people to flee to West Germany. Even so, there would probably be some migration to West Germany, at least initially, because the standard of living there is higher. In the case of a major economic recession in West Germany, however, migration would probably be reversed.

If we accept the thesis--as I believe we should--that, at some future time, such a federal council may be set up as a first step toward unifying Germany, then it would appear reasonable to propose that we resolve the current Berlin crisis along the following lines.

Let East Germany shift its capital from East Berlin to Dresden, and West Germany shift its capital from Bonn to Munich. Let us then set up East Berlin and West Berlin, each as a free city with a government of its own and, in addition, establish a council of Berlin, in which half of the delegates would represent East Berlin and the other half, West Berlin.

If such an arrangement were adopted, we would have made a constructive use of the current Berlin crisis, because the arrangement would enable us to find out how this type of federation would actually work, and Berlin might set the pattern for a subsequent federation of the East German State and the West German State.

About two years ago, I spent several months in West Berlin. There was no telephone communication between East Berlin and West Berlin at that time. People could freely cross over from one half of the city to the other, but taxicabs could not cross the dividing line. There was good theater both in East Berlin and West Berlin, and people crossed the line in order to go to the theater. It was very difficult, however, to find out in West Berlin what was playing in the theaters of East Berlin, because the West Berlin papers did not carry this information and there were no posters on display. I imagine the situation in East Berlin was quite similar.

Once the two Berlins ceased to be pawns in the cold war, Berlin could again become a great cultural center; its theaters and concert halls might once more attract visitors from all over the world, as they did for a short time between the two world wars. The council of the two free cities, even though they could take action only with the concurrence of 75 per cent of the delegates, should be able to adopt a number of nonpolitical measures which would enhance the welfare of the people of Berlin and would make both East Berlin and West Berlin a far more attractive place to live than they are today.

If the current Berlin crisis were resolved along these lines, then when Germany is ultimately united, it might end up having Munich as its capital rather than Berlin. This might be just as well, however, for the thought of Berlin as capital of Germany is something of a nightmare to those who find it difficult to forget the past.

Leo Szilard

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Chapter 4

Treaty Providing for Far-Reaching Disarmament

While disarmament would have to be carried out step-by-step, it is not possible to reach an agreement on disarmament step-by-step. Prior to the drafting of a treaty on disarmament the nations involved would have to reach a meeting of the minds--

- a) on the issue of how peace would be secured in a disarmed world;
- b) on the means that would be available to them for convincing each other that the disarmament provisions of the treaty are not secretly violated;
- c) on the political settlements which would have to go into effect when the arms level falls to the point where the nations would no longer be able to live up to their pre-existing commitments militarily to protect areas which are geographically remote from their own territory.

Disarmament will not reach a stable point until it goes far enough to give the nations a very substantial economic benefit, so that they would want to keep the treaty in force in order not to lose those benefits. Therefore, America, Russia, and China would be ill-advised to enter into a treaty, providing for disarmament, unless they had reasonable assurance that such a stable point would be reached within a very few years.

The problem of inspection is not solved when the nations reach a meeting of the minds on how inspection would operate in a generally disarmed world, where there would be no legitimate military secrets left to be safeguarded. We cannot go in one step from the present so-called atomic stalemate to such a disarmed world, and in the early phases of disarmament it might be still necessary to safeguard some such secrets.

We may envisage for the purposes of this discussion that the disarmament agreement may cover three periods and that full inspection would go into effect at the end of the First Period.

In order to be able to talk about the transition from the present so-called atomic stalemate to general disarmament in a concrete fashion, it is necessary to make certain assumptions concerning the general route that the nations might be willing to take:

The Soviet Union has proposed soon after the last war that the use of atomic bombs be outlawed. Outlawing the bomb would mean that the nations pledge themselves not to resort to the use of atomic bombs except in retaliation for an attack with atomic bombs.

As long as stockpiles of atomic bombs are retained, the outlawing of atomic bombs would not necessarily prevent the nations from resorting to the use of the bomb in case of war. But once atomic bombs are outlawed, thereafter no nation could, in peace time, threaten to use atomic bombs in furtherance of its national objectives. Moreover, the governments of the great powers would then be impelled to reorganize their defense set-up, so that they may be able to rely on conventional forces, as the "deterrent."

The Soviet proposal for outlawing the bomb has not been accepted so far by the United States and her allies. Up to rather recently, many people in America advocated that the United States should rely on her capability to fight unlimited wars in which atomic bombs would be used against troops in combat. At present, however, the weight of opinion is shifting toward the view that an atomic war could not be limited and that the United States needs to reorganize her defense set-up in order to be in a position to fight limited wars with conventional weapons, rather than with atomic bombs.

I personally do not believe that it is possible to solve the problem that the bomb poses to the world by attempting to turn the clock back in such a fashion. This problem can be solved only by abolishing war. On the other hand, if the United States were to enter into an agreement providing for general disarmament, then--as an interim measure--the outlawing of the bomb might furnish the key for solving the intricate problems posed by the period of transition.

Accordingly, I propose to assume here that if the United States were to enter into an agreement providing for general disarmament, she and her allies would be willing to set a date, within the period of transition, for the outlawing of the atomic bomb. I further assume that the date set for the end of the First Period, when all-out inspection goes into effect, would be also the date set for the outlawing of the bomb.

No nation would then have a legitimate reason for wanting to retain bombs beyond the end of the First Period, except as a sort of insurance against bombs that may have been secretly retained by others.

We shall refer to the nuclear force level that the disarmament agreement sets for the end of the First Period as the Intermediate Nuclear Force Level.

The guiding principle, for setting the Intermediate Nuclear Force Level, shall be the consideration that the number of bombs retained by America and Russia need to be reduced to the point where there are not enough bombs left for the adoption of a counterforce strategy. Neither America nor Russia would then need to fear thereafter, that their capability to retaliate in kind against a nuclear attack could be destroyed by a surprise attack.

So that it may be possible to appraise and specify in the agreement the appropriate number of bombs that America and Russia shall be permitted to retain within the framework of the Intermediate Nuclear Force Level it will be necessary for America and Russia to state--prior to the conclusion of the disarmament agreement--to what extent they wish to rely for the delivery of bombs, on planes, long-range rockets which may be launched from fixed--soft and hard--bases, intermediate-range rockets which may be launched from submarines, long-range rockets which may be moved around on land--on railroad cars and trucks.

At the outset of the Second Period far-reaching measures of inspection will have to go into effect and some of these might lead to the disclosure of the location of fixed rocket launching bases. Such rocket launching bases might be vulnerable to a surprise attack, carried out by bombs legitimately retained within the framework of the Intermediate Nuclear Force Level, and the disclosure of the location of such bases might therefore involve a substantial loss in military security for a nation relying on fixed soft rocket launching bases.

In these circumstances, Russia and America might wish to reorganize their bomb delivery system and to shift prior to the conclusion of the disarmament agreement, or during the First Period, to rockets that may be launched from mobile bases of various sorts. If, in order to accomplish some such shift, they need to conduct bomb tests during the First Period, they shall be free to do so.

At the end of the Second Period the conventional forces would be reduced to a level--the Intermediate Conventional Force Level--which is set by the agreement.

The guiding principle for setting the Intermediate Conventional Force Level shall be the consideration of reducing the conventional forces of each nation to the point where no nation would be in a position to wage war in, or to extend military protection to, an area which is geographically distant from its own territory.

All standing armies, air forces, and navies would be disbanded at this point. All heavy mobile guns or heavy tanks would be destroyed.

At the present time, America has certain commitments to protect areas which are geographically remote from her own territory. Since she could not live up to such commitments after the end of the Second Period, it would be necessary to make it possible for her to liquidate all such commitments during the First and Second Period, without endangering the security of the nations involved.

As far as America's commitments in Europe are concerned, this would need to be accomplished by a suitable political settlement. As far as Formosa is concerned, however, it might be impossible to arrive at an adequate settlement within the next few years. Therefore, it might be necessary to leave Formosa in possession of defensive weapons--within the framework of the Intermediate Conventional Force Level set by the agreement--in such quality and quantity as would be necessary to enable Formosa to defend herself against an improvised army equipped with machine guns, that might disembark on her shores.

All foreign bases would be dismantled and all military alliances would be dissolved at the end of the Second Period. Therefore, by the end of the Second Period it would be necessary to have regional police forces in operation in the disturbed areas of the world. Such forces could be built up during the First and Second Period, in the same measure in which funds became available for this purpose, through the savings resulting from arms reductions.

From the outset of the First Period all nations shall refrain from transferring to the control of any other nation nuclear weapons and means suitable for the delivery of such weapons, as well as fissionable materials of weapons grade (also such other fissionable materials as may be specified in the agreement, as well as such "bomb ingredients" as may be specified in the agreement).

At the outset of the First Period America and Russia shall, as a first step, dismantle a certain number of bombs and the fissionable material (and other bomb ingredients) contained in these bombs shall be placed in depots that are under appropriate international supervision (or in the custody of the International Disarmament Administration). The dismantling of each bomb shall take place in the presence of international inspectors and the materials shall be transported to the appropriate depots under the surveillance of such inspectors. All materials derived from America shall be kept in depots located on American territory.

The number of bombs dismantled in the first step by a nation shall be larger than one-third of the difference between the number of bombs possessed by that nation and the number of bombs which that nation is permitted to retain at the end of the First Period--within in the framework of the Intermediate Nuclear Force Level set by the agreement.

America and Russia would not need to disclose at this point how many bombs they possess and thus it might not be possible immediately to check whether the number of bombs which are dismantled in the first step, (in the presence of inspectors) is, in fact larger than one-third of the above-defined difference. If, at this point, either Russia or America wish to give the impression that they have more bombs than they actually have, they shall be free to do so provided that they are willing to pay the price and dismantle more bombs than they would otherwise be obliged to dismantle at this point.

Also--in the first step--America and Russia shall remove from their stock of fissionable material (which is not incorporated in bombs) at least one-half of each of the various categories of fissionable material and shall transfer these materials to the appropriate depots.

At the outset of the First Period America and Russia will be in possession of stocks of materials, including compounds of heavy hydrogen, which the agreement may specify as bomb ingredients. America and Russia shall at the outset of the First Period transfer at least half of each category of bomb ingredients (not as yet incorporated in bombs) to the appropriate depots.

From the outset of the First Period on, fissionable materials and bomb ingredients (as specified by the agreement) which are then currently produced by any nation, shall be currently transferred--in toto--to depots under appropriate international supervision.

Throughout the First Period the elimination and control of the means of delivery shall progress in parallel with the elimination and control of nuclear bombs, fissionable materials and bomb ingredients.

Throughout the First Period new means of adequate inspection shall be instituted, and the applications of the means already instituted shall be expanded, in the measure in which, step-by-step, atomic bombs are eliminated and stocks of fissionable materials (as well as bomb ingredients) are transferred to internationally supervised depots.

During the First Period the nations shall be free to readjust their conventional forces so that by the end of the First Period they

should be in a position to defend themselves individually or collectively without resorting to the use of atomic bombs.

At the outset of the Second Period far-reaching measures of inspection shall go into effect. There shall remain no information from then on protected by any government on the ground that it may represent a legitimate military secret--with the possible exception of the current location of mobile rocket carriers.

At the outset of the Second Period the production of means suitable for the delivery of bombs shall cease.

During the Second Period there shall be a reduction in the number of bombs--in stages--and a parallel reduction of the means of delivery. The number of bombs that each nation may be permitted to retain at the end of each stage shall be specified in the disarmament agreement.

During the Second Period there shall also be a stage-by-stage reduction in conventional arms and the level of the conventional forces that each nation is permitted to retain in each stage is to be specified in the disarmament agreement.

The stages relating to the number of legitimately retained bombs (and the corresponding means of delivery)--which shall be referred to as N-stages--need not coincide with (and may go into effect quite independently of) the stages which relate to the conventional force level--which shall be referred to as C-stages.

The rate at which the world may pass on from one N-stage to the next N-stage, i. e., the rate at which nuclear bombs will be eliminated, shall be determined solely by the guiding principle that the number of bombs America and Russia is to be permitted to retain in any given stage, shall be commensurate to the number of bombs that may have been illegally retained and may have remained up to then undetected. Accordingly, the rate at which bombs would be eliminated during the Second Period would depend solely upon the ability of the Atomic Powers to convince each other that no bombs have been retained by them in secret.

While the agreement would specify the Intermediate Conventional Force Level which would be retained at the end of the Second Period, it would not set the nuclear force level that may remain in existence at the end of the Second Period.

During the Third Period there would be a further stage-by-stage reduction of the nuclear force level and as time goes on bombs and means for their delivery might be completely eliminated from the nations' arsenals.

During the Third Period there would also be a stage-by-stage reduction in the Conventional Force Level toward the final Minimal Conventional Force Level, set by the Agreement, that would limit the conventional forces of each nation to that necessary for maintaining internal security.

It is envisaged that disarmament will be carried out under the control of an International Disarmament Administration which either operates under the Security Council of the United Nations, or a similar Council of its own--referred to as the High Council of the International Disarmament Administration. It is envisaged that the Soviet Union, the United States and the Peoples' Republic of China (and presumably also certain other nations such as, for instance, Britain and France) may have permanent seats on the High Council, while the other seats may rotate among the other nations which are a party to the Disarmament Agreement.

If the United States, the Soviet Union and the Peoples' Republic of China conclude a Disarmament Agreement, they will presumably have a strong desire to keep the agreement in force. In fact, the agreement could not remain in force if either of these nations should cease to wish to keep it in force. It is, therefore, envisaged that these three nations (and perhaps also the other permanent members of the High Council) would have certain Special Rights which may be as follows:

1. During the Second Period the progression from one N-stage to the next N-stage or from one C-stage to the next C-stage shall require a majority vote of the High Council of the Disarmament Administration with the concurring votes of the United States, the Peoples' Republic of China, and the Soviet Union (and perhaps with the concurring votes of the other permanent members of the High Council also).

2. If either the Soviet Union or the United States or the Peoples' Republic of China (and perhaps also any one of the permanent members of the High Council), or the majority of the High Council, remains unconvinced that there are no major violations of the disarmament agreement, then each of these individual nations, as well as the majority of the High Council, shall have the right--upon giving due notice--to demand that the disarmament process be reversed and they shall then be free to revert from the prevailing N-stage to a preceding N-stage. All other nations shall then also be free to revert to the same preceding N-stage.

It is envisaged that secret evasions or open violations of the disarmament agreement by one of the powers who possess the Special Rights listed under (2), would lead to a reversal of the

disarmament process and the step-by-step moving back from the prevailing N-stage to preceding N-stages. This "sanction" would go into effect at the demand of at least one power who possesses the Special Rights listed under (2), or at the demand of a majority of the High Council.

In case of a secret evasion or open violation of the Disarmament Agreement by a nation, which does not possess the Special Rights listed under (2), there shall be applied such sanctions as may be specified in the Disarmament Agreement.

Appendix

Living With the Bomb

Until such time as it may become possible to negotiate an agreement providing for far-reaching disarmament, both America and the Soviet Union are likely to retain large stockpiles of bombs. It is conceivable that within the next few years America and her allies may accept an earlier Soviet proposal and that the atomic powers will pledge not to resort to the use of the bomb except in retaliation, if they are attacked with such bombs.

In the meantime, however, the bomb is going to be retained as a "deterrent." Threats which could not be carried out without leading to all-out destruction of both America and Russia will not have a substantial deterrent effect, because the threat of "murder and suicide" is not a believable threat--particularly if it is made by either America or Russia--in a conflict where no basic issue is involved that would threaten the very existence of the nation. In these circumstances, the Departments of Defense, of both America and the Soviet Union, are bound to devise plans for strategic uses of the bomb which could be carried out without leading to all-out destruction.

The public does not know what these plans may be because both governments keep their plans secret. Secrecy in this instance is likely to be self-defeating, however. A strategy of this type might be unilaterally decided upon by either America or Russia, but it may not attain its objective of avoiding all-out destruction unless both the governments fully understand the nature and intent of the strategy--ahead of time. Accordingly, there ought to be arranged informal discussions on a governmental level between America and the Soviet Union on plans for the strategic uses of the bomb which might avoid all-out destruction.

There are only a limited number of strategies to choose from. I have described one of these strategies on various occasions,* which represents one end of a rather wide spectrum of strategies. It is a strategy for replacing war--in the usual sense of the term--inasmuch as it replaces the killing of men by the destruction of property.

* Bulletin of the Atomic Scientists, Oct., 1959; Feb., 1960. The Voice of the Dolphins, Simon & Schuster, New York, 1961.

This particular strategy could be unilaterally adopted either by the United States or the Soviet Union, but it could not attain its objective of avoiding all-out destruction, unless it was fully understood by the governments of both of these nations. Moreover, it might take some sort of an understanding between America and Russia to avoid a dangerous controversy over the question which American city may be regarded as equivalent to which Russian city.

The text which follows (taken from The Voice of the Dolphins) describes the strategy I have singled out for the purpose of this discussion. It describes the strategy in the form of a recital of a sequence of events as viewed in retrospect by a future historian:

"Between 1962 and 1965 the world passed through an agonizing transitional phase in the so-called atomic stalemate. At the beginning of this period America had still to rely mostly on bombers, based on airfields located in the proximity of Russia. Because of the possibility of a surprise attack which could have knocked out America's ability to strike a counter-blow, in times of crisis America felt impelled to keep one-third of her bombers in the air, on an around-the-clock basis. Russia, on the other hand, had no foreign bases, nor was she in need of any, since she possessed an adequate stockpile of long-range rockets which could be launched from bases inside of Russia and were capable of carrying hydrogen bombs large enough to demolish a city. By 1965 America had an adequate stockpile of such long-range rockets also and thereafter she was no longer in need of having foreign bases either.

"By 1965 America and Russia were capable of destroying each other to any desired degree. Their long-range rockets could be launched from submarines, trucks or railroad cars that were kept constantly on the move and thus it would have been impossible for either Russia or America to destroy, by one single sudden blow, the power of the other to strike a devastating counter-blow. With the fear of a surprise attack thus eliminated, the atomic stalemate began to gain a stability which it did not formerly possess.

"At a time when America and Russia could have destroyed each other to any desired degree, the threat of massive retaliation would have been tantamount to a threat of murder and suicide. Such a threat might be believable if made in a conflict by a nation whose very existence was at stake, but it would not be believable if made by America in a conflict in which American interests were at stake, but not America's existence, as a nation. In these circumstances America concluded that for the defense of her national interests she could no longer rely on long-range rockets, carrying a large bomb, and that she ought to maintain highly mobile forces which could be

rapidly transported to almost any part of the globe. It was assumed that, in the case of an armed conflict, America would send troops to the area involved and resist by using small atomic bombs against troops in combat, within the contested area.

"In time, Americans came to understand well enough that the 'real aim' of such a limited war could not be victory, which clearly might not be obtainable in every case, but rather the exacting of a 'price' from the 'enemy.' If America were able to exact a price higher than the price which the 'enemy' would be prepared to pay, then America's capability of fighting a limited atomic war, anywhere on the globe, would effectively deter the 'enemy' from attempting to change the map by force. It was recognized of course that, in order to freeze the map, America might have to be prepared to pay a price as high as she proposed to exact, both in money and in lives--the lives of the young men who would die in the fighting.

"It was generally taken for granted that the large bombs and the long-range rockets would play no role in any of the foreseeable conflicts. They were kept as an 'insurance' for the sole purpose of discouraging Russia or China from attacking America, by means of such large bombs. In this sense, and in this limited sense only, did the large bombs seem to serve a useful purpose as a 'deterrent.' "

* * * *

"No one had any doubt that the revolution in Iraq, which caught America by surprise in 1970, was in fact communist-inspired and America responded promptly by landing troops in the Lebanon and Jordan. This time she was determined to settle the issue of the control of the Middle East and thus to end, once and for all, the threat that Western Europe might be cut off from its Mid-Eastern oil supply. Egypt and Syria declared that they would regard an invasion of Iraq by American troops as an attack against themselves. Turkish troops were poised to move into Syria, and Russia was concentrating troops on the Turkish border, for the purpose of restraining Turkey.

"At this point America proclaimed that she was prepared to send troops into Turkey, to use small atomic bombs against Russian troops on Turkish soil and in hot pursuit perhaps also beyond the pre-war Turkish-Russian boundary.

"It would appear that Russia disliked the prospect of fighting an atomic war on her southern border. There was little assurance that such a war could not spread and finally end up in an all-out war, and rather than to take this risk Russia decided to adopt another kind of strategy. In a Note, which was kept very short, she proclaimed that she would not resist locally, by force of arms, an American

intervention in the Middle East, but would rather seek to deter America by setting a high price. The price would not be set, however, in terms of human life but in terms of property. The Russian Note listed twelve American cities by name. Russia stated that if American troops crossed over into Iraq she would single out one of these twelve cities, give that city four weeks of warning to permit its orderly evacuation--as well as to allow time to make arrangements for the feeding and housing of refugees--and thereafter the city would be demolished with one single long-range rocket.

"The American reply indicated that for each city that Russia would demolish in America, America might demolish two cities in Russia.

"To this, Russia replied in a second Note--a Note of unprecedented length--that if America were to demolish two cities in Russia for each city that Russia may have demolished in America, and if Russia were to demolish two cities in America for each city that America may have demolished in Russia, then the destruction of one city would trigger a chain of events which would step-by-step lead to the destruction of all American as well as Russian cities. Since clearly America could not possibly want this result, she may not make such a threat of 'two for one' and expect it to be believed. Russia, on her part, would tolerate that America demolish one Russian city, in return for Russia having demolished one American city. But for each additional city that America might demolish, Russia would demolish one and just one additional city in America.

"This second Note made it clear that even though Russia would abide by such a principle of 'one for one,' this did not mean that America would be free to demolish a large city in Russia in return for a small city demolished in America. What would count in this respect, so the Note stated, would be the size of the city, as expressed by the number of inhabitants, rather than by the number of square miles covered by the city.

"Twenty-four hours after this Russian Note was received in Washington, the American members of the Steering Committee of the Seventh Pugwash Conference issued a document which listed the number of inhabitants of all American and all Russian cities. They stated in the preface that if American troops were to invade Iraq and Russia were to demolish one of the twelve cities she had listed, an undesirable controversy might arise over the issue of which American city was equal to which Russian city, unless an authentic list of the number of inhabitants was readily available.

"This document was issued so promptly that it aroused Russian suspicion. The Russians thought that somehow the American

members of the Pugwash Group Steering Committee might have had inside information about Russian intentions and thus were able to prepare in advance this list of cities.

"The second Russian Note caused a turmoil in Washington. Various groups urged the Government that it adopt a rigid policy of demolishing two Russian cities for each city demolished in America, or that it accept the principle of 'one for one,' or that it do neither but just keep the Russians guessing.

"At the meeting of the National Security Council several experts expressed the view that, were Russia actually to demolish one of the twelve cities she had listed, the public would demand that America retaliate by demolishing a large number of Russian cities. They said that the President would thus not be able to abide by the principle of 'one for one,' without seriously risking the defeat of his party at the next elections.

"The Government thereupon asked Gallup to conduct a poll on an emergency basis. Residents of the thirty largest cities were asked whether if Rochester, N. Y., one of the twelve cities named, were demolished, America ought to retaliate by demolishing just one Russian city, or whether she ought to retaliate by demolishing more than one Russian city. To the surprise of the Government, 85 per cent of those who had an opinion declared themselves against America demolishing more than one Russian city.

"In retrospect, this response does not appear to be so very surprising; the people polled knew very well that if America were to demolish two Russian cities in retaliation for Rochester, Russia would demolish one additional American city, and this additional city might be their own.

"Some of the members of the National Security Council declined to take this poll at its face value and said that the people would react differently if Rochester were actually demolished. The rather involved psychological argument they cited in support of this view was never put to a test, however, for America did not intervene militarily in Iraq.

"Within a few days after the receipt of the first Russian Note which listed the twelve cities, people began to register in Washington as lobbyists for one or other of the twelve cities, and ten days later there was not a hotel room to be had in the whole city. It was the most powerful lobby that ever hit Washington. With steadily increasing editorial support across the nation, after an initial period of uncertainty, this lobby succeeded in forcing a re-examination of the whole Mid-Eastern issue. Doubts were raised as to whether Western

Europe was really in danger of losing its supply of oil, since there was no other market for mid-eastern oil. It was said that, while the price of oil from the Middle East could be raised, it could not be raised very much, since it could be replaced by oil from the Sahara. As the result of a re-examination of the Mid-Eastern issue, America decided to withdraw her troops from the Lebanon and Jordan.

"This decision was reached in the face of strenuous opposition on the part of a small, but vocal, and influential, group of opinion makers. There were prophets of doom who declared that if America were to yield to Russia's threat on this occasion, then from here on Russia would be in a position to get her way on any issue; she would be in a position to change the map at will, simply by threatening to demolish a limited number of American cities, in case America should try locally to resist, by force of arms.

"Fortunately, these prophecies proved to be incorrect. For the time being at least, Russia appeared to be quite satisfied with the map as it stood."

It is conceivable that the above-described strategy is being considered either by the United States Department of Defense or by the Government of the U. S. S. R. , or by both. Therefore, I take the liberty to propose that if either America or Russia were to invoke the above-discussed strategy, then in applying the principle of one to one they regard cities as equivalent which have--according to the attached list--the same population.

The United States and the Soviet Union may, of course, agree at any time on a more up-to-date list for the number of inhabitants, or alternatively they might at any time reach a meeting of the minds in favor of some principle, other than "size of population," for determining the equivalence of cities.

Population of U. S. Cities--100,000 or more1,000,000 and over

New York, New York	7,801,957
Chicago, Illinois	3,620,962
Philadelphia, Pennsylvania	2,071,605
Los Angeles, California	1,970,358
Detroit, Michigan	1,849,568

900,000

Baltimore, Maryland	949,708
Cleveland, Ohio	914,808

800,000

St. Louis, Missouri	856,796
Washington, D. C.	802,178
Boston, Massachusetts	801,444

700,000

San Francisco, California	775,357
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600,000

Pittsburgh, Pennsylvania	676,806
Milwaukee, Wisconsin	637,392

500,000

Houston, Texas	596,163
Buffalo, New York	580,132
New Orleans, Louisiana	570,445
Minneapolis, Minnesota	521,718
Cincinnati, Ohio	503,998

400,000

Seattle, Washington	467,591
Kansas City, Missouri	456,622
Newark, New Jersey	438,776
Dallas, Texas	434,462
Indianapolis, Indiana	427,173
Denver, Colorado	415,786
San Antonio, Texas	408,442

300,000

Memphis, Tennessee	396,000
Oakland, California	384,575
Columbus, Ohio	375,901
Portland, Oregon	373,628
Louisville, Kentucky	369,129
San Diego, California	334,387
Rochester, New York	332,488
Atlanta, Georgia	331,314
Birmingham, Alabama	326,037
St. Paul, Minnesota	311,349
Toledo, Ohio	303,616

200,000

Jersey City, New Jersey	299,017
Fort Worth, Texas	278,778
Akron, Ohio	274,605
Omaha, Nebraska	251,117
Long Beach, California	250,767
Miami, Florida	249,276
Providence, Rhode Island	248,674
Dayton, Ohio	243,872
Oklahoma City, Oklahoma	243,504
Richmond, Virginia	230,310
Syracuse, New York	220,583
Norfolk, Virginia	213,513
Jacksonville, Florida	204,517
Worcester, Massachusetts	203,486

100,000

Tulsa, Oklahoma	182,740	Baton Rouge, La.	125,629
Salt Lake City, Utah	182,121	Scranton, Pa.	125,536
Des Moines, Iowa	177,965	Knoxville, Tenn.	124,769
Hartford, Connecticut	177,397	Tampa, Florida	124,681
Grand Rapids, Michigan	176,515	Camden, N. J.	124,555
Nashville, Tennessee	174,307	Cambridge, Mass.	120,740
Youngstown, Ohio	168,330	Savannah, Georgia	119,638
Wichita, Kansas	168,279	Canton, Ohio	116,912
Springfield, Massachusetts	162,399	South Bend, Indiana	115,911
Spokane, Washington	161,721	Berkeley, Cal.	113,805
Bridgeport, Connecticut	158,709	Elizabeth, N. J.	112,817
Yonkers, New York	152,798	Fall River, Mass.	111,963
Tacoma, Washington	143,673	Peoria, Illinois	111,856
Paterson, New Jersey	139,336	Wilmington, Del.	110,356
Sacramento, California	137,572	Reading, Pa.	109,320
Albany, New York	134,995	New Bedford, Mass.	109,189
Charlotte, North Carolina	134,042	Corpus Christi, Tex.	108,287
Gary, Indiana	133,911	Phoenix, Arizona	106,818
Fort Wayne, Indiana	133,607	Allentown, Pa.	106,756
Austin, Texas	132,459	Montgomery, Ala.	106,525
Chattanooga, Tennessee	131,041	Pasadena, Cal.	104,577
Erie, Pennsylvania	130,803	Duluth, Minnesota	104,511
El Paso, Texas	130,485	Waterbury, Conn.	104,477
Kansas City, Kansas	129,553	Somerville, Mass.	102,351
Mobile, Alabama	129,009	Little Rock, Ark.	102,213
Evansville, Indiana	128,636	Utica, New York	101,531
Trenton, New Jersey	128,009		
Shreveport, Louisiana	127,206		

Population of USSR Cities With More Than 100,000 Inhabitants

	<u>Thousands</u>		<u>Thousands</u>
Moscow (without suburbs)	4,389	Krasnodar	271
Leningrad (with suburbs)	3,176	Vladivostok	265
Leningrad (without suburbs)	2,814	Ufa	265
Kiev	991	Prokop'yevsk	260
Baku (with suburbs)	901	Tallin'	257
Baku (without suburbs)	598	Barnaul	255
Khar'kov	877	Izhevsk	252
Gor'kiy	876	Voroshilovgrad	251
Tashkent	778	Kalinin	240
Kuybyshev	760	Kemerovo	240
Novosibirsk	731	Gorlovka	240
Sverdlovsk	707	Arkhangel'sk	238
Tbilisi	635	Penza	231
Stalino	625	Groznyy	226
Chelyabinsk	612	Chkalov	226
Odessa	607	Tomsk	224
Dnepropetrovsk	576	Kirov	211
Kazan'	565	Nikolayev	206
Riga	565	Chernikovsk	206
Rostov-na Donu	552	Vil'nyus	200
Molotov	538	Kaunas	195
Stalingrad	525	Stalinabad	191
Saratov	518	Frunze	190
Omsk	505	Kishinev	190
Minsk	412	Taganrog	189
Voronezh	400	Kaliningrad	188
L'vov	387	Ul'yanovsk	183
Yerevan	385	Shakhty	180
Zaporozh'ye	381	Kursk	179
Yaroslavl'	374	Kadiyevka	170
Karaganda	350	Samarkand	170
Stalinsk	347	Syzran'	169
Alma-Ata	330	Komsomol'sk-	
Krasnoyarsk	328	na-Amure	169
Krivoy Rog	322	Murmansk	168
Tula	320	Dneprodzer-	
Ivanovo	319	zhinsk	163
Irkutsk	314	Chita	162
Makayevka	311	Shcherbakov	162
Nizhniy Tagil	297	Simferopol'	159
Magnitogorsk	284	Ordzhonikidze	
Khabarovsk	280	(Severo-Oset-	
Astrakhan'	276	inskaya ASSR)	159
Zhdanov	273		

Population of USSR Cities With More Than 100,000 Inhabitants

	<u>Thousands</u>		<u>Thousands</u>
Ulan-Ude	158	Kirovabad(Azerbaydzhan SSR)	111
Orsk	157	Stalinogorsk	109
Kostroma	156	Orekhobo-Zuyevo	109
Tambov	150	Makhachkala	106
Kopeysk	149	Mogilev	106
Dzerzhinsk	147	Kurgan	106
Gomel ^d	144	Vinnitsa	105
Zlatoust	143	Namangan	104
Ashkhabad	142	Leninakan	103
Chernovtsy	142	Babushkin (Moskovskaya	
Ryazan ^f	136	Oblast ^g)	103
Semipalatinsk	136	Serpukhov	102
Kherson	134	Armavir	102
Sevastopol ^e	133	Voroshilov	101
Perovo	132		
Smolensk	131		
Chimkent	130		
Poltava	129		
Vitebsk	128		
Orel	128		
Vologda	127		
Tyumen ^h	125		
Cheremkhovo	124		
Lipetsk	123		
Stavropol ⁱ			
(Stavropol ^{skiy} Kray)	123		
Kamensk-Ural ^{skiy}	122		
Kaluga	122		
Bladimir	121		
Leninsk-Kuznetskiy	119		
Petropavlovsk			
(Severo-Kazakh-			
stanskaya Oblast ^j)	118		
Petrozavodsk	118		
Kramatorsk	117		
Kiselevsk	116		
Anzhero-Sudzhensk	116		
Kirovograd	115		
Andizhan	115		
Kutaisi	114		
Polol ^{sk}	113		
Biysk	112		
Kuntsevo	111		
Bryansk	111		