
ELIMINATION OF GERMAN RESOURCES FOR WAR

HEARINGS
BEFORE A
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COMMITTEE ON MILITARY AFFAIRS
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AUTHORIZING A STUDY OF WAR
MOBILIZATION PROBLEMS

PART 9

DECEMBER 20, 1945

**TESTIMONY OF THE
FOREIGN ECONOMIC ADMINISTRATION**

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ELIMINATION OF GERMAN RESOURCES FOR WAR

THURSDAY DECEMBER 20, 1945

UNITED STATES SENATE,
COMMITTEE ON MILITARY AFFAIRS,
SUBCOMMITTEE ON WAR MOBILIZATION,
Washington, D. C.

The subcommittee met at 10:30 a. m., pursuant to call of the chairman, in room 104-B, Senate Office Building, Senator Harley M. Kilgore (chairman) presiding.

Present: Senator Harley M. Kilgore, West Virginia.

Also present: Dr. Herbert Schimmel, chief investigator.

The CHAIRMAN. The committee will come to order.

The witness this morning will be Mr. Henry H. Fowler, Director of the Enemy Branch, Foreign Economic Administration.

Mr. Fowler, you were with the Foreign Economic Administration prior to the transfer of its personnel to the State Department; is that correct?

TESTIMONY OF HENRY H. FOWLER, DIRECTOR, ENEMY BRANCH, FOREIGN ECONOMIC ADMINISTRATION

Mr. FOWLER. That is correct.

The CHAIRMAN. As I understand it, these pamphlets [indicating TIDC reports] are in the nature of monographs written for the Foreign Economic Administration; they are not reports of the Administration, but present the information of the individuals who prepared the studies.

Mr. FOWLER. Yes.

The CHAIRMAN. Now, Mr. Fowler, will you go right ahead with what you have to say.

I may interrupt you with a few questions as you go along.

Mr. FOWLER. Please do so, sir.

I think, for the sake of the record, I will ask your indulgence while I read the memorandum of transmittal, since it clears up some of the detailed questions concerning the origin of this testimony and the report on which it is based, and also clearly defines its present status.

This is a memorandum from me to Mr. Crowley, who was formerly the FEA Administrator.

Subject: Final report on German economic and industrial disarmament.

I am submitting herewith the final report of the FEA Enemy Branch on A Program for German Economic and Industrial Disarmament. This report and the reports on the 31 technical industrial disarmament study projects, now complete, constitute a discharge of the responsibility delegated to the FEA by the late President Roosevelt on September 28, 1944, when he directed the FEA to conduct "studies from the economic standpoint of what should be done after the surrender of Germany to control its power and capacity to make war in the future."

As you know, this function was transferred to the Department of State by an Executive order of September 27, 1945, which directed the dissolution of the entire Foreign Economic Administration. Therefore, this report constitutes a final discharge of the assignment of the FEA Enemy Branch, which was created to carry on these studies.

This report, in process of completion at the time of the transfer to the Department of State and your resignation as FEA Administrator, has been completed under my direction and is, therefore, now submitted as a final accounting for the work of the FEA Enemy Branch, rather than the Department of State.

Arrangements have been made for the adequate distribution of copies of this report to the military and civilian officials in our Government, both here and abroad, who are responsible in policy-making or executive capacities for our German policy and its administration. As you know, mimeographed copies of the reports of the technical industrial disarmament committees (outlined in appendix D of this report) were delivered to the United States Group Control Council and interested officials in the Federal agencies in August of this year. Additional printed copies of these TIDC reports have been prepared and have or will be delivered.

Many of the general principles originally developed in the FEA studies, summarized in this final report, have become adopted United States policy in the Berlin protocol. However, at this writing, the report is not to be characterized as an adopted program of the United States Government. The extent or particulars in which the recommendations in this report or the auxiliary TIDC reports are to become adopted United States policy or program will be determined by the appropriate policy-making and executive officials in the State and War Departments, who have not yet reviewed the document. Therefore, the terms of the report, as presented, are advisory.

I am complying with a request of Chairman Kilgore of the subcommittee of the Senate Military Affairs Committee to supply his committee with a copy of this report and the TIDC reports for public release by the committee. In view of the deep national concern in the prevention of any recurrence of German aggression, I know we are in agreement that this public accounting for our work over the past year and the availability to the public of the information and views we have assembled is in the public interest.

In conclusion, several acknowledgments are in order.

First, to the various departments, agencies, and individuals who participated in the TIDC project which resulted in the 31 auxiliary reports on which this final report is based. The voluntary contribution of the large numbers of experts in other agencies (recorded in appendix D) represents a unique example of the interagency cooperation without which much of the value of this study project would have been impossible of achievement.

Second, to the staff of the FEA Enemy Branch. It is impossible to record here the personal contributions of the many individuals whose work has gone into the collection of the basic information, coordination, and development of the various study projects, and the preparation of this document.

Lastly, I should like to record on behalf of the Enemy Branch our deep appreciation of your support and backing at all times in our work, now complete.

The CHAIRMAN. I think it would be appropriate to put the letter from you to the subcommittee into the record.

Mr. FOWLER. If you will, sir.

(The chairman read an excerpt from the letter dated December 18, 1945.)

The CHAIRMAN. This letter will be made part of the record.

(The letter, dated December 18, 1945, referred to above, follows:)

FOREIGN ECONOMIC ADMINISTRATION,
Washington 25, D. C., December 18, 1945.

HON. H. M. KILGORE,

*Chairman, Subcommittee on War Mobilization,
United States Senate Committee on Military Affairs,
Washington, D. C.*

DEAR SENATOR KILGORE: In response to your request by letter of December 14, I will appear before your subcommittee on December 20 in order to summarize the highlights of the final report on a program for German economic and industrial disarmament. I will submit the complete document as an exhibit to my testi-

mony with the understanding that it is submitted on behalf of the former FEA Enemy Branch rather than the Department of State, to which that Branch is now attached. In this connection there are certain facts which should be noted in the record.

The report, initiated in July, was in process of completion at the time of the transfer of portions of the FEA (including the Enemy Branch) to the Department of State by Executive order. I undertook to remain on duty until December 31, deferring a contemplated resignation to enter the private practice of law until the report could be completed, edited, and distributed to the appropriate United States military and civilian officials. The report has not been reviewed by the Department of State and, hence, should not be interpreted as having either the approval or disapproval of the Department. Rather, the report is the responsibility of the FEA Enemy Branch, acting under my direction.

In view of this background, I call to your attention the explanatory note on the inside cover page of the report, which reads:

"The FEA Enemy Branch wishes to make clear that this report should not be characterized as an expression of the adopted policy or program of the United States Government, except as the policy recommended may have been reflected in the Yalta declaration, the Berlin protocol, or public announcements by the President or the Secretary of State.

"This report constitutes a program of recommendations prepared by an official agency charged by the President with the responsibility for making a thorough study of German economic and industrial disarmament. Until or unless the program herein presented is adopted in whole or in part by the appropriate policy determining officials, its terms are purely advisory."

I would appreciate your inserting this letter into the record of your committee in connection with my appearance so that the status of this document may not be misunderstood. I would not want the publication of this report to embarrass either the representatives of the Departments of State or War who are or may become engaged in negotiations on the subject matter. So long as it is submitted on the understanding noted above, I do not believe any such embarrassment will result. In view of the deep national concern in the prevention of German aggression it seems to me to be only fitting that a public accounting for the past year's work of the FEA Enemy Branch be rendered and that the information and views it has assembled be made available to your committee and the public.

Sincerely yours,

HENRY H. FOWLER,
Director, Enemy Branch.

Mr. FOWLER. At this time, Mr. Chairman, I should like to offer for the use of the committee and for such record purposes as it deems suitable the entire report, which is entitled, "A Program for German Economic and Industrial Disarmament. Final Report. Foreign Economic Administration, Enemy Branch," and also, for the record, as exhibits to this statement today, the available numbers of the Technical Industrial Disarmament Committee reports, which are all to be in printed form. Due to some delays in the printing process we have available only 16 of the printed copies. We have available mimeographed sets of the remainder and will furnish your committee with a complete set of these reports for the record today.

(The final report of FEA Enemy Branch, entitled "A Program for German Economic and Industrial Disarmament" and the appendixes to final report, plus the following TIDC project reports: Nos. 5, 7, 9, 10, 11, 8, 12, 14, 15a, 15b, 17, 19, 20-27, 25, 31, 18, and Organization and Personnel, were filed with the committee.)

The CHAIRMAN. These reports are the studies made of the various divisions of German industry, at the request of the FEA?

Mr. FOWLER. That is correct, sir.

With your permission I will proceed to deal rather informally with the highlights of this report, using as textual material some of the material that appears in the first part of the final report, notably the

preface, the summary of the plan, and a summary statement in support of the program.

The CHAIRMAN. You can boil that down in your own words. But I would like to ask you several questions.

From your studies of this, wasn't it apparent to you that German industry, as a whole, was a part of the military program for conquest? In other words, that it was keyed into the armed forces and the two worked as integral units, and that when that industry got abroad it really was an infiltration as a part of the conquest, and would remain so if allowed to exist in that shape. Is that right?

Mr. FOWLER. Indeed, sir.

We have attempted, in a rather limited way, to document the accuracy of the statements that are implicit in your remarks. For the purposes of the record I should like to point out that in section II of this report which deals with the industrial disarmament program, in subsection C, there is a historical analysis of the way in which German industry, particularly the heavy industry, was coordinated with the German General Staff and the other economic ministries of the German Government to form a part of the machine for military conquest.

Also, in section V of the report, and in particular subsections B, C, and D, there is a documentation of the activities of German industry and trade groups outside Germany in extending their controls and their preparation devices to areas beyond the Altreich and, in particular, their efforts to acquire sources of supplies of critical materials, which would be needed in case of war, to enable Germany to withstand a blockade.

Secondly, efforts by these industrial concerns through their handling of exports and through their cartel and trade agreements with other industrial enterprises outside Germany to hold back the development of the industries important for war, while German industry was enabled to expand and take advantage of the market so provided.

The result of that, of course, would have a double impact in the event of war because the industries or economies outside Germany would suddenly feel the shock of a withdrawal of German supply of these critical materials, while German industry would have the benefit of the extra margin of capacity which had been kept alive by reason of these devices for economic warfare.

The CHAIRMAN. And by the, shall we say, arbitrary division of territory, they were able to build up a market far in excess of their needs, so that, if blockaded, their superior grouping, which had taken care of this large market, would be able to take care of expanded needs of war. Is that right?

Mr. FOWLER. Exactly.

The CHAIRMAN. Another thing that has interested me is the fact that at the same time we were making heavy plant investments in Germany itself, building plants, and selling bonds over here for the erection of power dams, German industry was also running out with branches in other countries to pick up additional money and additional territory and filtering into the economy of these other countries. While money was being loaned by our people to help them to expand their local economy, and while investments were being made there, they could find money to invest abroad, if they could control the outlet through which the investment went, and their control was exercised usually through their control of research in Germany, by which means

they exploited the inventions made over there exclusively in the country through which the plan filtered itself.

Mr. FOWLER. I think the comment you made will be stressed as I indicate some of the high lights of the summary program which has been devised. We have attempted to devise measures to meet the type of activities that you have described and to control them through two devices, one an internal control of German activities, and the second, through international agreements between the various nations who have been affected in the past by German aggression, to keep a mutual guard, as it were, against a repetition of such tactics in the future.

The CHAIRMAN. That financial set-up was brought very strongly to my attention some time ago by a man who asked if it were not possible to sequester the value of the German investments in this country and to use those to liquidate a lot of the bonds that had been sold in this country for the building of power units in Germany, and give the Germans the bonds and let the people who had lost their money over here be at least partially reimbursed from the German investments in this country. He had invested his entire savings of some \$15,000 in German bonds at the suggestion of a broker.

Mr. FOWLER. There will be several varieties of claims.

The CHAIRMAN. That was rather a unique picture. He said, "I didn't realize they had money to invest here until this thing came up."

Mr. FOWLER. This is the first public report, or report made outside of the executive agencies on this subject by the Foreign Economic Administration. However, I wouldn't want to leave the impression that we have been wholly silent on the matter during the last 12 months.

Early in the year, in January 1945, we prepared and submitted an interim report which outlined the various areas or fields which it seemed to us, from an initial analysis, needed detailed examination. On the basis of that interim report these 31 separate study projects were launched and the tentative findings, as it were, began to have their impact on the shaping of a Government program in the spring.

Following that interim report of January, the question of reparations came prominently to the fore as a result of the Yalta Conference and a series of informal memoranda dealing with the problem of reparations, which are attached as appendix B to this report, were submitted last March to the United States member of the Reparations Commission for advice.

On in the spring months, particularly in March, it became apparent that the successes of our armed forces would hasten the occasion for a definitive initial policy of Germany much sooner than had been expected, and accordingly, on April 15, 1945; Mr. Crowley submitted a preliminary program for German economic and industrial disarmament, which was an FEA recommendation to the Secretaries of State, War, Navy, and Treasury. That document is also included as an appendix, appendix C, to this report.

Then, on August 12, 1945, following the issuance of the Berlin protocol and the delegation of responsibility for the development, negotiation, and execution of a disarmament program to the Allied Control Council, the mimeographed copies of the individual reports of the Technical Industrial Disarmament Committee were delivered to the United States Group Control Council. Summaries of those docu-

ments appear as appendix D to this report, with a full account of the ways and means in which they were developed, the addition of the various participants from the other agencies, and some notation of the limitations that must be observed in using the reports.

From time to time other documents and proposals bearing on this subject have been communicated to the agencies and departments responsible for policy determination, international negotiations, and administrative execution in this field.

You will recall that I appeared before your committee in June to give a factual background of the problem, and at that time presented various materials and exhibits to my testimony dealing with that subject. I want to make one fact clear for the purposes of the record here, that in dealing with this subject of German economic and industrial disarmament, the FEA, rather than being an operating agency, has been confined in its functions to work in the field of planning and programing. The responsibility at all times for carrying on the negotiations, for administering or executing the decisions on the subject, have been lodged in the State and War Departments and, hence, I am not in any position this morning before your committee to comment, or give any accounting on that phase of the work.

The CHAIRMAN. I understand your position there.

Mr. FOWLER. We have attempted to prepare this final report, Senator, with three things in mind. A great deal has been written and said on the subject; perhaps much that appears in the report, therefore, will seem repetitious or now rather well-accepted dogma. But it seemed to us that before leaving this work, having completed the project, a final recapitulation would be useful, for three purposes.

First, that somewhere there should be provided a supporting brief for the general principles on German economic and industrial disarmament announced in the Berlin protocol. As the report will subsequently indicate, particularly in the section on the development of a disarmament program for Germany, subsection H, which is in the introductory material, the Berlin protocol is fundamentally, in most respects, a product of American policy. I will not attempt to detail the exceptions to that there, but in general the essence and principles of the Berlin protocol are a reflection of a United States point of view, and I think that is a subject or a point that is worthy of emphasis in the future in dealing with the execution and administration of that document.

The CHAIRMAN. And also based on results of our own investigations.

Mr. FOWLER. Of our own findings. In other words, it isn't a policy which has been handed to us by some power on whose kite we are riding. It really has been a result, I think, of the combined thinking of the various executive and legislative agencies in the Government who have been concerned with the problem.

This Berlin protocol has taken many of the general principles that are voiced in this FEA program out of the realm of the hypothetical into the area of definite agreement, and yet I have a feeling, which to some extent is borne out by history, that time and time again the underlying principles of this Berlin protocol are going to be subjected to attacks from persons who misunderstand them or who have never understood the basis or the logic of the principles. Some of these attacks will result from propaganda from the pan-German interests

who still, we must anticipate, will have a strong base to speak from at some time in the future.

The CHAIRMAN. And also from that growing group who feel that "Well, we have won the war and with the fighting stopped why should we fool around any more?" There is going to be a constantly growing sentiment in that direction.

Mr. FOWLER. Indeed. And there will be other conflicting considerations which have a valid basis, our concern for reparations or the concern of other nations for reparations, the national anxiety and desire of the entire world to see the liberated and devastated areas rebuilt, concern for the German standard of living itself. Those are economic considerations which, to some extent, impinge upon and cover the same general territory as the principles of disarmament voiced in the Berlin protocol. Therefore, it seemed to use useful to explain the merits of these principles in the roots of history and in the light of the technical realities of total war and more important, the necessities for preserving the peace, which is a consideration which seems to far outweigh any of the other elements that one might mention.

Secondly, we felt that a report providing a specific and detailed program for executing the principles of German economic and industrial disarmament announced in the Berlin protocol might be of use at this time.

If I can interpolate there for a moment, I know my own experience has been to find a good deal of material in the form of assertions of general principles which do not take on their fullest meaning until you see them in terms of concrete figures or concrete industries. To say that we adopt and will follow a program of industrial disarmament, for example, may mean one thing to you and an entirely different thing to Mr. B. It is now important, it would seem, to get the subject matter out of the area of general principle into the realm of concrete decisions.

The CHAIRMAN. Don't you think it is also necessary to give the background reasons for the concrete decision at the present time? That is, give the, shall we say, economic and historical causes for the building up of the program. I say that because you talk to the average American, and may I say the average well-educated American, and it is very hard to get him to think back to Versailles and the mistakes made from the armistice up to the start of this war, which we seek to avoid now. He doesn't realize those mistakes and we are liable to get right back on the same track we traveled before, which will eventually lead to another war unless the facts of the background are rather widely publicized.

Mr. FOWLER. That is why, Senator, we have been not only willing, but in a way felt it was fitting for the Branch in its report to figuratively put ourselves "out on a limb," to provide a target, a program to be shot at.

The CHAIRMAN. We must realize that at the end of the last war, in our haste to get the war behind us, we left the German General Staff intact. We merely disarmed their army and left them a domestic force. We left German industry intact. We left the entire economic set-up intact.

And by the use of inflation and other means they practically washed out the economic losses of World War I and were able to build themselves up, with the help we gave them. We followed at Versailles the

policy that Bismarck had followed in 1870 so successfully in hamstringing the French with cash reparations. We tried to do the same thing with them, and they dodged it.

Mr. FOWLER. General Morgan, who was the British member of the Allied Disarmament Commission, has written a very interesting book, which has recently been published, on his experiences as a member of that Commission. He has commented (and I do not presume to quote him exactly) that by 1923 Germany was in a better position to wage war than she had been in 1914. Now, of course, there are differences this time; the amount of destruction and the disintegration is substantially greater. It is awfully hard, however, to predict just how much effect that change will make.

Of course, with an opportunity to develop, as it will, its new industrial capacity, there are many advantages the Germans would have. There is a great deal of old worn-out plant which, if it had not been damaged or had not been destroyed, might be a incubus to a heavy industry economy, and I think the record will show that the successful efforts of the Germans to redevelop their heavy steel industry in the 1920's through foreign loans and through internal financing devices—

The CHAIRMAN. And through the collection of royalties in the United States from Americans for the use of their processes.

Mr. FOWLER. Yes—you found them much better equipped in terms of their steel industry in 1929 than they were in 1920.

So, to come back to the second purpose of this report, it is to set up a specific and detailed program, with figures, with the names of the particular industries, with a definition of the specific measures that we recommend be employed.

Now, the agreement as to what will be done is, of course, a matter for the four nations who are members of the Allied Control Council to decide and they are now engaged, as you know, in negotiations looking to the removal or destruction of plant and equipment prescribed under the Berlin protocol. That remains as yet in large measure to become an accomplished fact. Likewise, they are considering the institution of disarmament controls (for example, new plant construction in dangerous fields of industry or the excessive importation of critical or strategic materials and products). But this control system which is now under consideration remains to be established in order to prevent a subsequent rearmament of Germany, militarily and industrially.

At this juncture, when these things are in their initial phases of consideration, we felt it appropriate to bring forward a series of recommendations which might be useful, both to the people who have that responsibility and to the general public, in acquiring an understanding of the necessity for some of the measures that undoubtedly will have to be employed.

Thirdly, the report outlines a long-term program for lasting and permanent control of Germany's war-making power. The Berlin protocol makes clear that it constitutes an arrangement for the initial period of occupational control. The preparation of detailed international and Allied arrangements for a long-term control of and an ultimate peace treaty with Germany will involve vital decisions which are to a considerable extent anticipated and developed herein.

Again, it is an attempt to spade up the ground for internal governmental and public consideration and not an attempt to be dogmatic and say, "This is the way it has to be."

As I have indicated to you, the basis of this report is the 31 special study projects which are summarized in appendix D. The conclusions are given there. The names of the experts who participated, and their particular qualifications, are recited. The FEA Enemy Branch, consisting of several hundred persons, has spent the greater part of its time—we have had other responsibilities, but we have given this primary consideration—over the last 6 to 8 months on this matter, and in addition to that we have been afforded the opportunity for consultation with informed people in the various interested agencies, particularly the War and State and Navy Departments. A number of experts in those three agencies have been simultaneously concerned, and we are particularly indebted to the ad hoc committee of the War Department and Navy Department, which was specially constituted by the Secretaries of War and Navy to deal with projects 1, 2, and 4, which were directly related to military armament, arms, ammunition, implements of war, aircraft, and secret weapons, and so forth. We were also able, through the courtesy of the War Department and General Clay, to dispatch a general mission from the staff to the field where we spent approximately a month in observation, or, rather, consultation, with members of the staff of the Control Council who were just then beginning to take hold of the responsibility which had been given to them.

I want to underline particularly those acknowledgements, because it is quite true that we would have been unable to carry on this work in the detail and to the extent we did without the help of these other agencies of the Government.

Lastly, I would like to put at rest any implications that we consider this final report to be the last word on the subject. It is the last response that as an organization we will be privileged to make, but there is a good deal more to learn about this business of preventing and limiting Germany's economic capacity and power to make war. Particularly, we felt that field investigations on the ground of the chemical industries and the common components industries might be undertaken to advantage because the information we have had available here, particularly about the complexity of the German chemical industry and the common components industries, has not been as adequate as we would like for it to have been.

We have come to conclusions on the basis of the information that is available, but a field survey on the ground, I think, would provide the government with a good deal more information than it presently has on the subject. Perhaps that can be done by the Control Council staff, itself, in time.

The entire program, particularly on scientific disarmament, may need to be tightened in view of a fresh examination in the light of new developments in the atomic bomb field. We had practically completed most of the underlying reports and studies at the time the atomic bomb made its dramatic appearance, although some general background of the possibilities had been known.

We have attempted to deal in this report, in section VI, with some of the implications of the atomic bomb in this field, which I think deserves a very careful consideration, but the subject is obviously

by no means exhausted. Hence, although realism may call for some considerable changing of blueprints here in response to conditions and circumstances as yet unpredictable, it has seemed incumbent upon us to submit, as the agency is being dissolved, this final report.

One last word about limitations. I would like to make it clear that this report is not in any sense an outline of a complete and general economic program for Germany. Our terms of reference gave us just one specific job, and that was a limited one—I think the most important one—concerned solely with the study of measures necessary “to control its—Germany’s—power and capacity to make war in the future.” In making this study under this limited mandate we have been conscious of the fact that we have been dealing with one side of the coin; namely, the destruction of German military power, while a related but essentially different task, the planning of positive conditions which will encourage the development of Germany and Europe along peaceful economic patterns, remains to be done. In effect, the FEA program provides an outline for the surgical operations necessary to extract and extirpate the evil growths which have made Germany a force for aggression. The development of a complementary plan or program for the economic and social reconstruction of Germany and Europe along peaceful, democratic lines is a task still ahead. If anything, it will require the same degree of persistent study that has been dedicated to the program of German disarmament.

However, in any subsequent development of this more positive side of United States policy for European peace, we would hope that one condition would always be underscored: that for some decades the existence of economic power and capacity which would enable it to wage effective war alone or in alliance with others will be incompatible with world peace and prosperity.

All of us are concerned with European economic reconstruction. The danger of doing that through too much reliance on German industrial power and development is one that cannot be too often underscored. It would seem, as indicated later in this report, that one of the great objectives to be desired in European economic reconstruction is a better balance between heavy industry in Europe, as between Germany and the rest of Europe.

If you would turn in the text to section II, page 20, you will find a table 2 which illustrates this condition very graphically. This table shows why Germany has been able to dominate the war industries in Europe.

You will note that, possessing only 9.9 percent of the area and 20 percent of the population, it was responsible in 1936 for 64 percent of the coke production, 48 percent of the pig iron production, 48 percent of the steel production, 54 percent of the aluminum production, 50 percent of the automobile and truck production, 82 percent motorcycle production, 64 percent machinery, 35 percent electricity, 35 percent sulfuric acid, 54 percent nitrogenous fertilizer, 23 percent wood pulp, 4 percent natural petroleum, 53 percent bituminous sub-anthracite—that is the Steinkohle—and 82 percent of the lignite or brown coal.

In other words, possessing a much smaller percentage of the area and population, it has succeeded in dominating these heavy industries which are most important for war.

That need for a readjustment of that balance, it seems to me, goes to the root of our problem of both European reconstruction and preservation of peace.

With that brief introduction, I would like to run as hastily as I can through the principal recommendations that are to be made.

The CHAIRMAN. There is another interesting thing. The only real work in ascertaining why Germany lost the first war was done by one of our great foundations, and that was widely publicized and picked up by the German General Staff, and measures were taken to correct that before they went into this war.

After the last war, instead of studying how to keep Germany from getting into another war, we made an exhaustive study on why she lost the war, and told her about it.

Mr. FOWLER. I didn't know that.

The CHAIRMAN. Yes. The German production of protein from wood sugar was a partial result of that very exhaustive report.

Mr. FOWLER. I know, and it is recorded in this report in subsection C of section II, that the General Staff went underground. One of the devices used was the assignment of various former members to the Archives and other Government agencies to study the causes of the loss of the war. The continuity of their concern with war-making was maintained in that fashion, and by the time they were able to come out and assert themselves they had a fairly good blueprint which they proceeded to carry out, almost step by step, as that section indicates, throughout the next 10 years. I didn't know, however, that we had been of such great assistance to them in our own studies.

The CHAIRMAN. We were.

Mr. FOWLER. This summary of the FEA program for German economic and industrial disarmament is based fundamentally on one conclusion, and that is the necessity for internationally enforced economic and industrial disarmament of Germany.

International arrangements for the use of force to prevent future acts of aggression which are generally accepted must be supplemented in the case of Germany by action designed to eliminate or control its economic power and capacity to make war. An essential element in our foreign policy should be to secure the creation and maintenance of all such necessary arrangements.

The achievement of German economic and industrial disarmament will require drastic action over a substantial period of time designed to eliminate Germany's power and capacity to make war and, through controls, prevent its redevelopment. Although Germany is a militarily defeated nation, the economic base of her aggression—the resources, the capacity, the organizing institutions—is still available or can be reconstituted, unless measures are taken toward a fundamental reorientation of the German economy.

The achievement of security from future German aggression should be the primary and controlling element in our foreign policy toward Germany.

Those propositions are, perhaps, redundant here. They are generally accepted, and the only point of emphasis that I would like to make is that it isn't enough initially to disarm Germany. The important and vital problem is the nature, character, and strength of the controls that are established to prevent the redevelopment of a war

potential, which is something that will inevitably, if it is to be effective, be measured in terms of decades rather than years.

The CHAIRMAN. And, in order that that be effective, must not that policy reflect itself also in our dealings with other nations that might have some effect upon Germany's economy?

Mr. FOWLER. Indeed. The question of how other nations can be of assistance to Germany and how we could be of assistance to Germany in helping her to prepare for another war seems to require not only a series of international engagements as to internal controls in Germany of the nature and character that the Allied Control Council represents, but also some corollary international engagements concerning trade, financing, the migration of personnel, the treatment of German assets located in those countries, the treatment of German contractual arrangement, patents. A variety of items which have their fundamental impact outside Germany are not covered and cannot be effectively covered by two or three of the Allies dealing with the internal problem inside that country.

The CHAIRMAN. In the first place, Mr. Fowler, the integration existing between the armed forces of Germany, the German General Staff, the Army, and SS, and various others, and German industry that made it possible to build up this war machine in a relatively small country, were brought about by the internal cartels in Germany which made it easy to integrate the combat machinery shall we say, of Germany with the munitions-making industry of Germany and to convert industries with great rapidity and completely control them, even in peacetime.

Had it not been for those cartel arrangements, Germany would have had a much more cumbersome machine. In fact, she would have been in the position that we were at the outset of the war and even during the war, with a very loosely knit integration between industry and the military forces that we had constantly to protect against. Isn't that right?

Mr. FOWLER. Yes, sir.

The CHAIRMAN. For that reason, the cartels must be broken up if we hope to keep Germany from rearming.

Mr. FOWLER. In section V of this report there is outlined an external security program which is summarized in this summary on pages 25 through 38. It seems that in terms of space, at least, we tend to give an unusual emphasis on the importance of this external security program, and yet on closer analysis it perhaps is an emphasis that is deserved.

Germany as a power to engage in world conquests had necessarily to depend upon the integration of her economy with the economies of a number of her neighbors in Europe and with help, in other words, elsewhere.

It seemed to us that the future threat of German aggression can be greatly minimized if, by international arrangements on the outside between countries outside, the aggressive forces within that country can see that it is hopeless for them to attempt to divide and conquer. That, undoubtedly, is bound to be the tactic that they will attempt. They cannot, in the light of the power that was summoned against them in this war, feel any confidence in their ability within their own power to deal with the forces ranged against them. So they must adopt the strategy of infiltrating through various economic and

political devices to achieve some form of alliance whereby, added to Germany's resources, the resources of the other powers can give them a base on which to play.

The CHAIRMAN. And they are right now being used. Only yesterday I was approached by a representative of American industry seeking to get the German stock of a big company in the United States which was controlled by Germany, asking me to get permission from the State Department for them to get an option from the Swiss holders who now have that stock, which we had hoped the Swiss would cooperate in freezing, but which apparently now has gotten into the hands of Swiss people. I don't think they put up the money that represents the stock or anything.

I still believe that it is merely, shall be say, a trusteeship for profit, thereby getting control of that company back into the hands from which we had to wrest it when we got into the war, showing that our foreign policy must not just look at Germany, but must look, just as you said, at those other nations whose economies would help Germany, and see to it that their economy is conducive to peace and not conducive to building up a war machine in Germany.

Mr. FOWLER. Yes, sir, and in that connection I think the problem of treatment of the neutrals is one of the most difficult.

The CHAIRMAN. It is.

Mr. FOWLER. And at the same time important phases of this whole question. If I may interpolate at this point, since we are dealing with it here, we have felt, on the basis of our studies, and again this is not an official position of the United States Government but only of an agency studying the problem, that the neutrals and some of the late cobelligerents such as Turkey and Argentina, are set apart as a separate category in connection with this problem of German external security.

German economic penetration and influence in these countries was strong, and up until nearly the end of the war it had a very firm footing. This fact, coupled with the known sympathies of many individuals and groups in these countries with the Nazi cause that we cannot be blind to, creates a set of intangibles that must be faced realistically in projecting the external security program.

Questions of national sovereignty of the powers in question are intermingled with the legitimate security and reparations interests of the Allies and the United Nations.

The satisfactory solution of the problem is not likely to emerge except through very painstaking and intensive negotiations, and care on the part of the United Nations to respect the legitimate incidents of sovereignty, but more importantly the understanding willingness of these neutrals and of Argentina and Turkey to accommodate their national interests to the international security from future German aggression, which is a world stake.

Much remains to be done in this field, and in particular on the following: To obtain from the countries in question the information concerning the identity and location of German assets within their territory and any other information they have bearing upon German economic and political penetration. It is very difficult for us to obtain that information completely from outside Germany. We must have the help and cooperation of those governments, and they must know that we value and put store by that cooperation.

Secondly, it would seem important to obtain some agreement of the countries in question on the substantive provisions of an external security program that all of the nations would cooperate together to maintain.

Third, to obtain an agreement from the countries in question concerning the administrative arrangements which they will permit to be followed by the Allies in connection with the treatment of German assets and personnel existing in those countries.

Fourth, to obtain their agreement concerning future trade arrangements between the export and import control authority for Germany and the nations, always for their respective territories, including any further exchange of a financial character.

The administration and disposition of German assets in the neutral countries, Argentina and Turkey, is not likely to be consummated in accordance with the full interests of Allied and United Nations security, except through the operations of a German external assets commission established and manned by the Allies and possessed of substantial authority and operating control of these assets in the neutral countries. Such a commission should be endowed with power and authority of both the German Government and the former German property owners. It should have adequate technical and engineering personnel located in the countries where these assets exist to supervise and check upon their administration and arrange for their ultimate disposition into safe hands.

It should take into primary account the security interests of the Allies in the problem.

Finally coming to the toughest phase of this problem, should any of the countries in question prove unwilling to cooperate with the Allies in their endeavor to suppress the seeds of another war, the employment of existing sanctions in terms of loans, trade agreements, and a number of things which are treated in detail in this report, and the development of new ones, should be aggressively pursued by the Allies, acting in concert until a satisfactory elimination of Germany's economic base in these countries is achieved.

That is our view. It is simply a view based upon a careful analysis of the difficulties that are involved in dealing with complex properties.

The CHAIRMAN. But that is why that entire philosophy must color our foreign policy.

Mr. FOWLER. When you examine the extent and nature, let's say, of the German electrical industry in Spain, it is a very complex and finely integrated affair which it is difficult to extirpate and to remove from German control, from the direction of German managers, from the access of the German technicians, without a firm understanding with the local authorities in question and adequate Allied supervisory personnel on the ground administering those properties and disposing of them on terms and conditions that would guarantee as far as possible against their return into the former German hands.

The CHAIRMAN. You know, Mr. Fowler, my mind goes back to an incident in my own State. The Supreme Court of West Virginia one time handed down a decision on a negotiable banking paper that was very carelessly worded and made the negotiability of paper questionable.

The bankers of the other States of the Union said, "We are not going to take any more negotiable paper out of the banks of that

State," and within 24 hours that decision was straightened out and business went on. Any State or any nation will act when its economy is endangered.

Mr. FOWLER. In the last year the Swiss agreement that you referred to was negotiated in connection with a trade agreement with Switzerland for items that were in short supply and were necessary to their economy. I think an examination of the problem will show that a very fair and understanding case can be made to these neutral governments as to why it is in their interests to join with the Allies in this common international endeavor.

The CHAIRMAN. But we as a nation can't do it by ourselves. We must have the cooperation of all the United Nations.

Mr. FOWLER. Exactly.

The CHAIRMAN. And it does not involve a surrender of sovereignty.

Mr. FOWLER. It is a matter of international agreement.

I have jumped ahead to discuss the external security problem. I will come back now to the second point in this summary program, namely the establishment and execution during the occupation period of a program for German economic and industrial disarmament, to be followed through by the maintenance of controls designed to prevent rearmament in the future. The achievement of German disarmament requires the full-scale military occupation or complete control of the German economy for a period of time. Such a full measure of control for a limited period of time is necessary to the establishment and execution of the initial phases of the program, and that is the period we are in right now.

A military disarmament program designed to stop the production of arms, ammunition, and implements of war, while highly necessary and an integral part of this program, falls far short of being an adequate measure of limitation on the power and capacity of Germany to make war. Military potential in a total war is a combination of modern industrial, scientific and institutional components of such a nature as to make them equally useful for war or civilian production.

Therefore, adequate disarmament measures must touch and concern not only the direct manufacture of military weapons, but also:

(a) The economic and industrial base in terms of facilities and access to materials.

(b) The scientific and engineering research on facilities useful for waging war.

(c) The economic institutions used or usable for the effective mobilization of the resources of war.

(d) The basis for evasion of internal disarmament of Germany existing in German assets and personnel outside Germany.

It should be the principal aim of military government, the occupying authorities, and the Allied Control Council to develop and effectuate these disarmament measures during the period of full-scale occupation and control and provide the basis for the semipermanent maintenance of such controls as may be necessary in the indefinite future.

It should be contemplated that at the end of full-scale occupation and control such features as the elimination of war plants and excessive war industries and the installation of continued control measures should be successfully consummated. Full-scale occupation and control should not be given up until certain assurances of continuing security have been provided.

These assurances, of a semipermanent German disarmament program, should be the subject of agreement between the Allies before they retire from their present position of full-scale control, and should include:

1. The establishment of German governmental machinery of acceptable composition according to political determinations of the Allies concerning the degree of decentralization of political authority necessary and the extent of territory to be maintained under German rule.

2. The successful negotiation of agreement between the Allies including the details of continuing disarmament to which the parties are committed to enforce, and providing for common action in the event of violation of such conditions by Germany in the form of strict military sanctions.

The Controls to be maintained would be established by Allied authority and not by treaty, although acknowledgment of this authority by German governmental machinery should be a condition precedent to the withdrawal of full-scale occupation.

May I interpolate there to say this question of security, according to the notions presented in this report, is not a matter of bargaining between the Allies and a German government. It is a matter of agreement between the Allies which that German government must accept as a condition to the withdrawal of full-scale occupation and control.

It is not a matter of haggling as between the new government and the former Allies. That would seem to have been one of the great weaknesses after the last war, the way the Germans through negotiations were able to interpret or spell out the provisions of the treaty to their own advantage.

The CHAIRMAN. Yes. And also their habit of dealing with individual Allies instead of dealing with the Allies as a group at all times. In other words, the United Nations must force all dealings to be with the composite group rather than to allow them to talk with various members and try to win their support.

Mr. FOWLER. The lodgment of full-scale responsibility in the Allied Control Council by the Berlin protocol seems to have been one of the great advances that we managed to obtain over the last war.

Finally, as a condition to this giving up of full-scale military occupation, there should be the establishment of a semipermanent Allied disarmament commission fully empowered with authority and administrative machinery to maintain the disarmament plan after the Allied Control Council has retired from a position of responsibility for the general control of German affairs.

As the section of this report on administration indicates, there is no reason why the current structure of the Allied Control Council could not evolve into this permanent disarmament commission after it relinquished its responsibilities for some of the normal incidents of government to the German governmental machinery.

The first of these programs that I want briefly to summarize is the military disarmament program. Before doing so, I ought to note that these international agreements, and the administrative machinery that may be established to enforce them on a semipermanent basis, ought to be arranged so that the nature and degree of the control is flexible and subject to change. A measure of control deemed unnecessary today may become highly important tomorrow because of

technological improvements or developments; or a measure of control deemed necessary today may be released at some subsequent time.

For example, in the program that we have developed, a good deal of emphasis is laid on the reduction in capacity of the steel and related heavy industries. A less emphasis is placed upon the control of the manufacture of wood products, which we consider as one of the more or less peaceful industries which Germany could be allowed to develop, particularly to exploit her own forest reserves, which are greatly over-expanded and are indeed being stock-piled as a future source of supply. It might develop that over the next decade technological improvements in the field of plastics or wood products would dictate a different view over the importance of controlling the wood products or wood processing industry than the one we would have today in the light of current technology.

At the same time, developments might occur which would make a control established today seem relatively unimportant or redundant in the light of other advances that have taken place in the intervening period of time.

So in these permanent controls and measures a certain degree of flexibility, if provided, would be of substantial advantage in adapting the measures to meet technological change; also, the progress of the development of various weapons of war.

Coming to the military disarmament program, I will only give a very brief summary of it here, and you will find a much fuller treatment in section I of the report and in TIDC projects 1 and 2, which were developed by the ad hoc committee of the War and Navy Departments.

I should say there that those two reports, projects 1 and 2, which were prepared by a committee composed of two representatives from the War Department, two from the Navy Department, were among the most useful and valuable of the handbooks that we were able to procure, and I think that the full treatment of this problem of military disarmament in those reports would be worthy of attention.

The elements in the program recommended by these projects and adopted by FEA as part of its final report are as follows:

1. The manufacture of arms, ammunition and implements of war, including aircraft, should be forbidden, and their importation into Germany barred except for permission to import for police purposes granted by the Allied Control Council. Prohibited items should include those defined in TIDC projects 1 and 2, and discussed in section 1 of this report, together with any other items that the Allied authorities may, by agreement, include in this list.

I won't take your time to read the twenty- or thirty-odd specific items that are included in section 1.

2. All facilities specialized for the production of items determined to be within this classification should be removed and the production or importation of additional facilities of that type prohibited. These facilities should include the 11 categories of plants, 40 specified categories of facilities and equipment described in section 1 of this report, and such additional items as the Allied Control authorities may, by agreement, designate as plants or facilities specialized for war production.

If I may, I would like to pause and lay some emphasis on this fact. The facilities referred to here in the military disarmament program

are facilities which, according to our experts, have their only real use in the making of weapons for war. For example, a survey of our machine tool industry as utilized in this war and checked by contacts between the chairman of the Machine Tool Committee and the manufacturers who were participating in our program developed a list of some 36 types of machine tools that it was generally agreed you wouldn't want unless you were making an article for aircraft or an article for guns, a particular type of gun boring, or some defined piece of mechanism that was needed for an armament program.

So, in distinguishing between the quantity of machine tools that would exist in Germany under an industrial disarmament program, it is important to single out these specific types to see that every one of those is eliminated, because they are not useful for civilian production, or at least their use is so limited that the real purpose of any manufacturer in maintaining them would be as an element for the ultimate conversion of his plant to war. They are not the general-purpose, all-purpose, civilian type of machine tool that would be useful.

In that connection—if I may use this chart for a moment—incidentally, sir, I would like it to be noted in the record that these charts were prepared for reproduction in the TIDC reports. I didn't want you to think that we had spent the taxpayers' money in preparing them solely for the purposes of the hearing. They have been photographed and included in order to summarize, and are included in these reports, so that there is no point in offering this material for the record.

In the case of the iron and steel industry, this point I have just explained about the types of steel facilities which are fundamentally armament facilities stands out here. Wholly apart from the question of the capacity of the steel industry that should be left in Germany, there are certain steel facilities which, because of their use, ought to be eliminated completely from the German steel industry. I won't bother to detail those except to say that they have been carefully selected by our experts in our own steel industry here in the War Department, the Navy Department, the War Production Board, and other agencies concerned; the general point, for example, is that steel equipment that is built to produce an ingot in excess of 4,500 pounds in 9 cases out of 10 has an armament use in mind, or electric furnaces are so closely related and so important for the processing of certain ferro alloys which have their primary use through this process in the so-called tough steels for armament purposes, that the electric furnace as an item of steel equipment is considered a part of the specialized equipment for war.

I won't go through the other parts of that, except to say that there are numbers of types of equipment in plants which ought to be eliminated completely, because they fall within that category of specialized facilities. We have tried to detail them.

You will find in this report, in section I, a table which, in terms of the steel industry, indicates the recommended limitations on steel equipment which should be imposed. For example, a crucible pot should be limited to 80 pounds in size because those in excess of that have their normal use in the armament field. So these quantity limitations as to the size of plants and equipment in steel plants have been developed with the military disarmament program in mind; similarly, in

connection with the machine tools, the 36 types of machine tools which have their primary use in aircraft and similiar arms plants have been identified.

Certain auxiliary measures will be necessary in addition to the physical removal of these facilities, including the limitation of the governmental institutions which organized and maintained programs of military production of war planning and the prevention of their open of disguised restoration. This will include:

(a) The prohibition of the establishment or maintenance of any department, organization, or agency inside Germany or outside Germany under German control whose practice or purpose it is to plan, design, manufacture, acquire, or operate any arms, ammunition, or implements of war, including aircraft.

(b) The prohibition of the appropriation or disbursement of funds to be used for military purposes, including control of the appropriation of funds by the Government for the establishment or support of laboratories, schools, or other institutions which might be devoted to the development of such activities.

Those auxiliary measures, to parallel it to our own picture here, would add up to providing that the Germans are not to have a department of war, a department of navy, a department of air, and that German taxpayers' moneys are not to be appropriated for that purpose. Their appropriations or funds are to be checked to make sure that the disbursement of funds for the building of a military establishment as distinct from a local police force is prevented. Those auxiliary steps seem quite self-evident and require no further comment.

Special recommendations pertaining to the aircraft industry include:

(a) The limitation of all Government agencies or private institutions in Germany, or outside Germany controlled by Germans, for the development or execution of plans for the design, manufacture, procurement, or operation of aircraft or components as described in section 1 of this report, and the prohibition of their reestablishment.

(b) The prevention of the manufacture, ownership, storage, or operation by the German Government or by any public or private agency under German control, within or outside of Germany, of any aircraft or aeronautical training devices or components thereof (except only such operations of civilian aircraft and facilities therefor as are provided below).

(c) The establishment pursuant to Allied agreement of international arrangement for the control, management, and operation of all civilian flying in and over German territory and for the control of all ground services for aircraft, the making of flights, both civilian and military, subject to a traffic control organization established by and subject to Allied agreement.

Now I come to what is perhaps the most difficult and most controversial part of this disarmament problem, the industrial disarmament program. Most of one's personal experiences I think, will include the finding of easy agreement with the persons on the other side of the discussion on military disarmament, institutional disarmament, scientific disarmament, and the eternal security program we have discussed. On the other hand, the industrial disarmament program has been a subject of a considerable difference of opinion. The FEA has tried to profit by those differences of opinion, and I would like at this point to say that we feel we have greatly benefited by the fact that this part of

the subject has been discussed openly and publicly by outstanding men who have taken the time and trouble to develop analyses of the problem and treat them openly from their points of view. Mr. Morgenthau, Mr. Baruch, the Brookings Institution book, by Moulton and Marlio, the reports of the national engineering societies, Mr. Conant's treatment of the problem, all appeared publicly from time to time. As we will indicate later, we have tried to profit by their views and at the same time to test them and assay them in terms of a practical, detailed program.

The planks in this industrial disarmament program are as follows:

1. The following industries vitally important or useful in war production are to be eliminated or controlled as required by the Yalta declaration and the Berlin protocol. Then there is a listing of these industries. I would like to tell you, Senator, the way we arrived at this list of industries that is vital for either elimination or control.

First we made an analysis in terms of our own war production experience here of the industries which seemed to be most important and vital in terms of our own war effort. Then we checked that list with the ad hoc committee of the War and Navy Departments and they suggested several additional industries, and we created separate projects for those industries. To a considerable extent we defined those industries as specifically as we could in our own terms for the purpose of these individual studies, and it is quite likely that some segment or some additional industry that was not selected for inclusion in this list may at some later time, or even now, be properly included, but we tried to exclude from this consideration at the outset the industries which seemed to be less important and more or less peaceful in character.

To take a simple illustration, the shoe industry has its importance for war. Soldiers need shoes. But we didn't include the shoe industry in this list because we thought that it was fundamentally a civilian type industry which didn't have the rating or priority in its treatment for war that would justify the elaboration of measures of elimination and control.

I won't read the list of the industries because they are treated later.

The CHAIRMAN. Did you look at this in the studies from the question of industrialization? One cause, I believe, of Germans being conquest-minded, aside from the national training and education, is overindustrialization. It is like an abscess. It bursts out into war.

Mr. FOWLER. I share your view that the industries which for the purposes of this current program we have treated as peaceful may at some time take a turn on the road. Let's take, for example, the consumer durable goods industry—the electric iron or a simple household article like the washing machine or vacuum cleaner. The limitation on those industries which we have imposed has been an indirect one. It is the quantity of the machine tools that are available.

The CHAIRMAN. In the plant quality?

Mr. FOWLER. That's right.

The CHAIRMAN. Colonel Bernstein the other day stated that Germany's plant facilities were in excess of her wartime needs in certain categories.

Mr. FOWLER. We found, in this analysis of the events between 1920 and 1939, that the German general staff and its collaborators

had really three targets that they were driving toward. They were endeavoring to build up Germany's heavy industry in excess of her peacetime needs to the greatest extent they could. That is borne out in almost every one of the heavy industries.

The CHAIRMAN. In your charts here it shows the gross, for instance, of ingot tons of steel to the 1938 level, which is terrific.

Mr. FOWLER. The expansion is recited for each one of these: Light metals, petroleum, rubber, electronics, antifriction bearings, common components, machine tools, automotive, shipping, machinery industries, iron and steel, chemical industries, solid fuels, electric power, ferro-alloys, optical instruments and precision equipment, forest products, transportation, and communication. All of those industries were the ones in which there was a tremendous expansion between the twenties and the last war.

The CHAIRMAN. Beyond what the country's real needs were?

Mr. FOWLER. Beyond what it needed.

First, they sought to obtain industrial self-sufficiency in certain of the materials that were important for war. When they found, in World War I, that, for example, they suffered from a lack of oil and rubber because of the British blockade, they began to figure out ways and means whereby the chinks in their industrial self-sufficiency could be filled, and hence the development of these two industries.

Secondly, they began to import excessive quantities of a number of metals and nonmetallic materials that would be necessary in vast quantities in the event of a war program.

Thirdly, they tried to achieve German industrial and economic domination of Europe along the lines that the chart has indicated in terms of physical capacity and then through the cartels, trade agreements, buying of properties in these other countries with foreign exchange, patent controls, and a number of related devices which were used, I think, for two purposes: First, to obtain some political footing and sympathy in those countries; and, second, to mobilize the resources of those countries in a way in which they could be integrated into the German war machine by conquest, so as to give Germany plus Europe a quantitative position in the war industries to stand against the rest of the world.

The CHAIRMAN. And, through the cartel agreements, to create shortages where shortages would be the most damaging.

Mr. FOWLER. The five preliminary measures that we have devised to operate on these three targets of German effort between the wars are designed to effect an initial substantial reduction of Germany's over-all industrial capacity, particularly in the heavy industries, which is far in excess of peacetime requirements, and to prevent a restoration in the future of any rebuilding of a dangerous excess.

Secondly, to permanently eliminate Germany's industrial or material self-sufficiency for war, and the third, to eliminate German economic and industrial domination of Europe.

The particular measures or means that we have chosen to accomplish these objectives are five:

1. The complete elimination of certain key industries of unusual importance for war or which have been created in Germany primarily for the purpose of achieving industrial self-sufficiency.

2. The reduction of excessive capacity in the industries important for war which are not scheduled for complete elimination. A partial deindustrialization of those industries.

3. The establishment of industrial controls designed to control the capacity, rate of manufacturing and exports of the industries important for war which are to be permitted to continue on a substantially reduced scale in the German economy.

4. The removal of the plants and facilities rendered useless by the foregoing measures in such a manner as to make them readily available for reestablishment in the countries entitled to claim reparations.

5. The establishment of a control of the imports and distribution of materials and products that are highly important in quantity for sustained military operations.

If you will turn to page 49a, we have tried to tabulate these measures very specifically.

The CHAIRMAN. You mean in the final report?

Mr. FOWLER. No; it is in the text here. It is also in the final report. On page 49a, there is a tabular summary of this program; 49a lists the industries that are to be eliminated completely and rebuilding permanently prohibited.

Germany is to be made dependent on the outside world for any essential civilian needs she might have of these products. For example, Germany will need some supply of ball bearings, she will need some supply of oil and rubber, either natural or synthetic. But she is to get those materials from the outside world, and those industries are to be completely eliminated.

Abrasives; antifriction bearings; calcium cyanamide; electronics (except civilian radios); light metals, including raw aluminum and magnesium; synthetic methanol; synthetic oil; ocean-going ships; synthetic rubber; technical and scientific optical instruments (except civilian cameras); heavy trucks.

Then on the next page, in category Roman II, industries whose capacities are to be reduced and subsequent capacity rate of production and exports controlled. It is contemplated that this program would be maintained for the duration of reparations or a decade, whichever is longer, at the end of which time appropriate modifications would be the subject of negotiation between the Allied governments.

I pause there to say that this is a short-term program with long-term potentialities. No one, I believe, today could predict what our views should be about the future of these industries, say, between 1955 and 1965, but, as the report indicates, it seems to us to be terribly important at this time, when you are attempting to remove these excess capacities and get these industries reestablished in the other European countries, to have a breathing spell or a static period in which Germans will know that if they want to develop their standard of living, if they want to develop a better economy, they can't hope to do it by a repetition of their maneuvers after the last war in redeveloping great capacities in these heavy industries important for war.

So, in the table, you will see in the first column an estimate of the amount of capacity or production from figures we have obtained through intelligence and other channels.

In the second column, a recommendation for the extent of capacity which is left in Germany.

In the third column, an estimate of the capacity which would be eliminated. There has to be some allowance there for bomb damage, for inaccurate figures, but we try to approximate in those three col-

umns an estimate of what Germany had, an estimate of how much in terms of disarmament, not reparations as such.

The purpose of this is not to fix a standard of living. Its purpose is to disarm Germany.

Then in the third column, the estimates of the amounts of capacity that would be removed, and, finally, in the last column, some indication of the nature of the export control that should be imposed.

The CHAIRMAN. I notice you also have an estimate of labor to be displaced by such changes, which I think is very good, too.

Mr. FOWLER. There is a complete table on that subject in the text of the report, the estimate being that if you take the 1936 labor pattern, the execution of this industrial disarmament program would displace approximately 1,900,000 workers. We have tried to include some of those figures for the convenience of the reader in this table.

The CHAIRMAN. You also have, on 49(h), a list of imports to be prohibited, a list to be licensed, and a list to be kept under surveillance.

Mr. FOWLER. That is right.

I want to note and to read to you the prefatory note to this table, which applies to all of the figures in this industrial disarmament program. First it should be noted that this table covers only the industrial disarmament program. The military items are dealt with in section I.

The tables which have been prepared for the convenience of the reader in order to give him a bird's-eye view of the impact of the industrial disarmament program should be studied in connection with the appropriate sections of the text of the report. The reader should also bear in mind that many of the figures in the tables and in the text of the report are estimates based on the best sources available to FEA. While the estimates represent a careful and painstaking study and have been dovetailed with each other in a comprehensive scheme, which represents FEA's best judgment of the quantitative measures to be taken, they are not offered as absolutes which cannot be changed. Indeed, in the case of the chemicals and common components industries the FEA industrial disarmament program includes recommendations for detailed field surveys to provide accurate detailed data not now available. Therefore, any of the figures may be subject to some adjustment in detail, especially for use in complicated negotiations among the members of the Allied Control Council, without destroying the effectiveness of the program. And, in view of the integrated character of any such program, a change in one part may necessitate adjustments in other related parts. However, the limits on any adjustment should be taken as set by the purposes of the FEA industrial disarmament program which seeks to give practical application to the resolves expressed in the Yalta declaration and the Berlin protocol.

In other words, Senator, I wouldn't want to leave with you the impression that we assume a completely infallible judgment on these detailed figures. In a complicated negotiation, as you will understand, where the views of four countries have to be accommodated, it is quite likely that variations from these figures by all four countries, who might be as purposeful on the industrial disarmament issue as we, could result, and we are submitting these figures as our best estimates not in an attempt to bind or commit anyone to them, but to say that this is the type and character and range of the sort of program that we believe would achieve the purposes of industrial disarmament that have been outlined, eliminating the excess, destroying Germany's industrial self-sufficiency, and eliminating her industrial domination of Europe.

The CHAIRMAN. I remember that after the last war American representatives went to the peace table with no such collection of

information as they will now have. We are now getting very complete information on Germany and Japan and other countries. I am hoping, also, that our representatives will go to the peace table with a very thoroughgoing knowledge of the United States of America, its potentialities and its needs, and their impact upon the world and the world's impact upon them. I think that we also need, shall we say, a DEA, a domestic economic administration, a survey of the United States of America.

Mr. FOWLER. We certainly found plenty of chinks when we started the war-production program.

The CHAIRMAN. I think that a domestic analysis like this is badly needed.

Mr. FOWLER. Yes. I am sure that most of the other countries maintain that kind of information.

The CHAIRMAN. On themselves and on us, too. I think we should do the same thing domestically that your organizations have done and are still continuing to do in the foreign field.

Mr. FOWLER. We found in the preparation of these reports that the war production program had certainly taught us more about our industrial economy and how it worked and how it operated and what purposes it was to be used for.

The CHAIRMAN. I believe that right now the Government officials of the United States know more about American industry than they ever have known in their lives, probably more than a whole lot of the industrialists know, because the average industrialist is in one field and he is watching that field and is not paying much attention to the other fields. That is why, in the building up of the War Production Board and various other agencies, it was so hard sometimes to make one man see the impact of something he did upon some other branch of industry.

Mr. FOWLER. Undoubtedly, the information that will be available in the files of the Board and the War and Navy Departments—

The CHAIRMAN. Will be of tremendous value, but it should be gotten together just like this.

Mr. FOWLER. You have to maintain that information, too.

The CHAIRMAN. It must be maintained. We should have a constant survey.

Mr. FOWLER. Of course, as you know, one of our great problems all during the early period of the war was getting a machine-tool inventory. We just did not know where to put our hands on the particular items that we needed.

The CHAIRMAN. I notice that these reports are marked "Restricted." Are they?

Mr. FOWLER. We are now taking them out of the restricted category.

The CHAIRMAN. So these could be made a part of our record?

Mr. FOWLER. They can be made a part of the record.

I shall take just a few more minutes, if I may, to call to your attention the scientific disarmament program, which I am not going to read the summary of here, but I want to say that it has been one of the most difficult and intangible problems that we have had to try to meet.

I don't feel that any elaboration of the subject before the committee could add any to the sum total of your information on it, but

we have gone out on a limb to recommend a scientific disarmament program which involves, first, the elimination of certain facilities completely, laboratories and installations of described kinds which, according to our information and the advice of the ad hoc committee of the War and Navy Departments, are installations and laboratories fundamentally for the purpose of making war.

The CHAIRMAN. You know, Mr. Fowler, we have information to the effect that Germany has shipped entire laboratories and set them up in neutral countries. She did that in 1942, 1943, and 1944.

Mr. FOWLER. Yes, sir.

The CHAIRMAN. Have any plans been made with reference to what can be done on that?

Mr. FOWLER. That would have to be handled, I think, through the external security program. It is one of the most important phases.

The CHAIRMAN. Do you have any detailed knowledge of how much of that has gone on?

Mr. FOWLER. I am afraid that all we have is the knowledge that enough has gone on to know that it is really a problem, but I don't think we have anything like complete information at hand.

The CHAIRMAN. I think the only way we will ever get the complete information is through a careful study of the German files, which of course we haven't had time to make.

Mr. FOWLER. We have included that as a recommendation in this external security program. The really fundamental part of the program is investigation, because it is awfully hard to convince any of these countries as to the nature of the German penetration problem unless you can lay the facts right out on the table. It is awfully hard to justify the diplomatic representations and the proposals that you make to them to undertake action in cooperation with you unless you can prove your case. If you don't have that data, it will be very difficult to convince a country that it ought to submit to various types of arrangements that might be inconvenient or might interfere with what they consider to be their normal sovereign rights.

The second phase of this scientific disarmament program, after you eliminate the specified categories of laboratories and scientific equipment, the facilities which we have detailed here, is to undertake a licensing system on all research that is to be continued.

The CHAIRMAN. Including inspection with the licensing?

Mr. FOWLER. Right, sir.

Licenses should be obtained from the Allied authorities before any research work is initiated. No licenses should be issued for the study of—then there is listed military products, aircraft or aeronautics, atomic energy, and peacetime research projects related to fields from which future secret weapons may be developed.

Then there is a list of the categories of dangerous research which according to our view now should not be licensed, regardless of the reasons for them.

It is important to include there a prohibition against research in these industries that are to be eliminated from Germany. It is not logical, for example, to eliminate the synthetic rubber industry in Germany completely, to make her buy rubber from the outside world, and allow German chemists to continue to develop synthetic rubber processes. So, the research control program ought to be

coordinated and meshed with the industrial disarmament program in those fields.

The CHAIRMAN. That is right.

Mr. FOWLER. Secondly, after licensing, there should be control of the finance of scientific research. The control of the financing of scientific research and development would include a prohibition against the use of Government or private funds for direct support or subsidy in and out of Germany of military research of all kinds; require as part of licensing system disclosure of sources of all financial backing and use of all funds of all laboratories, Government or private; require disclosure of sources and disbursements of all funds raised by public collection.

The fourth and last phase of the scientific disarmament program concerns the control of scientific personnel now in Germany, which is probably the most intangible and difficult of all. We have recommended that all scientific personnel be registered, including engineers and that licenses to that personnel to continue their scientific work be granted, except to former key individuals in war research, former leading Nazis, and violators of the control regulations.

Secondly, as a measure of controlling scientific personnel, place technical education under the jurisdiction of the Scientific and Research Section of the Allied Control Authority. A good deal of slanting of research and development, as we know, can be accomplished through the technical education that is provided. It can be slanted in a peaceful direction or in a war direction, depending upon upon the schools and universities.

Third, prohibit the migration of German scientists and engineers in all but exceptional cases, and subject their foreign travel to particular scrutiny. The experts on that subject weighed very carefully the advantage of the dispersing of this scientific organization in Germany or of keeping it in Germany under control, and the factors that led to this recommendation, I think, can be briefly summarized that, if you allowed German scientific personnel to migrate freely into all countries of the world, they could there carry on their research without a break in continuity in the laboratories and with the equipment provided by the industrial and governmental concerns in the other countries; and, secondly, would have the advantage of the knowledge, processes, and research that might not otherwise be available to them. Because of those factors, it was felt that a very strict control over the migration of German scientific personnel should be maintained. If you have one opening for them, if they can go to just one country, that is where they are apt to congregate, if you don't have that fundamental Allied control at the outset.

Last, prohibit foreign interests in Germany from carrying on research, and by international agreement curtail or stop similar activities of German nationals abroad.

Accredited foreign scientists should, of course, enjoy freedom of travel within Germany.

The next program, the institutional disarmament program, ties into the other more physical controls. It attempts to list the official institutions in the German Government which were part of the war machine and which should be abolished and their restoration prevented. It deals also with the private organizations that were mobilized as economic institutions for war and recommends in detail

measures for the dissolution of combines, trusts, domestic cartels, through laws, decrees, and administrative organizations.

It then deals with the highly important place which German participation in international cartels has played and recommends measures, including elimination, diligent and painstaking search of company and governmental records, in order to ascertain the full story of their operation, and effective diplomatic steps in the neutral and liberated countries to secure similar data.

Finally, it deals with the problem of the German general staff, which is at the root of most of these difficulties, and recommends that it not only be completely and formally dissolved, but that its members be segregated from the civilian population of Germany at least by exile, stripped of titles, rank, and status, and prevented from maintaining contact with each other.

I should note that that measure is not proposed in the nature of a criminal penalty because of some concept of guilt as war criminals. Regardless of the outcome of the war criminal trials, it has seemed to us that in the light of the experience after the last war, there should be some segregation of the members of the German general staff, much as you would treat an individual who was a carrier of disease or infection.

The CHAIRMAN. Have you recommended anything there with reference to the migration of potential general staff members? After the last war they were sent to various nations to work with their armies, ostensibly just as a nice gesture to them to help train their troops, but actually for the experience that could be gained, so they could be brought back to work with the general staff at such time as Germany became strong enough to use them.

Mr. FOWLER. Yes, sir, we have included a recommendation.

The CHAIRMAN. I don't think any of those people should be permitted to work with foreign armies at all.

Mr. FOWLER. In the external security program, which I will not have a chance to read or to treat here, on the question of German personnel, it is provided that:

All German nationals, including Germans who have become naturalized abroad, identified in any substantial way with the Nazi or pan-German activities, and possessing scientific skills or fitted for responsible positions in government, journalism, education, banking, industry, commerce, transportation, or military pursuits, should forthwith be repatriated to Germany.

Then, later, it says that:

The same general problem arises in connection with the future migration of German personnel. Clearly known Nazis or espionage agents or all others who by reason of their previous record are considered dangerous should not be allowed the normal rights of exit from Germany and entrance to the outside world. Moreover, the restrictions on movements of scientific personnel described in section III of this report are also an appropriate part of the external security program.

Clearly, there are questions of judgment and degree, but a former military officer who was obviously of sufficient rank and knowledge to be an important person, who was leaving Germany to go to another country to carry on his profession, as it were, represents something I think it is rather dangerous to turn loose.

The CHAIRMAN. For instance, within 6 months after the armistice, great numbers of German officers of rank equivalent to our grades of captain, major, and lieutenant colonel, were serving with the Mexican

Army, training the troops of Carranza. You would find them in every post and garrison.

Mr. FOWLER. Senator, I am going to conclude now just by calling your attention to the part of the statement which is in support of the program. We have tried to anticipate to some extent the types of objections that will come, which would naturally come to such a program, and we have tried, more or less as an advocate, to state the basis of our case. I won't go through that with you at this point.

The CHAIRMAN. I'll tell you what we want. We want to print this whole study as a part of the record, and have these as exhibits to go with the statement of Mr. Fowler, including those marked "Restricted," which now have been released from restriction so that we can have them.

Mr. FOWLER. We will submit the subsequent copies of these reports to you as they come off the press.

The CHAIRMAN. Do you have an extra set of these that I could turn over to the reporter?

Mr. FOWLER. There is one modification on the restriction. We have not submitted to you copies of reports on projects 1, 2, and 4, which were prepared by the War and Navy Departments. I shall have to obtain permission.

The CHAIRMAN. Are 1, 2, and 4 in this group?

Mr. FOWLER. No; they are not.

The CHAIRMAN. We can print anything that is here?

Mr. FOWLER. That is right, sir.

The CHAIRMAN. As soon as you get the restriction removed from 1, 2, and 4, we can add them?

Mr. FOWLER. Right, sir.

Here is a list of errata—errors that have occurred in the process of mimeographing. I will submit that to you. We will correct your copies of the report so you really don't need that.

The CHAIRMAN. Do you have an extra set of these?

Mr. FOWLER. Yes, sir.

The CHAIRMAN. Please give them to the reporter, so he can keep his record correct.

Mr. FOWLER. I should say that, due to the snow the flu epidemic, we didn't have time for careful proofing of this report, as we would like to have made, and we will correct the initial errors which we have spotted.

(Off the record.)

Mr. FOWLER. I should like to say also that we are especially indebted in this connection to the OSS presentation unit. They have done, I think, a remarkable job in distilling the recommendations in the individual reports in the charts that you see here, which will be duplicated in the individual reports. I know that there is so much for busy people to read these days that visual presentation is quite helpful, and I want to express here our appreciation of their work in preparing the charts for the record.

The CHAIRMAN. We will recess, to meet at the call of the chairman.

Thank you very much, Mr. Fowler. I think you have done a very able piece of work here.

(Whereupon, at 12:40 p. m., the committee adjourned, subject to the call of the chairman.)