INVESTIGATION OF BUREAU OF INTERNAL REVENUE

HEARINGS

BEFORE THE

SELECT COMMITTEE ON INVESTIGATION OF THE BUREAU OF INTERNAL REVENUE UNITED STATES SENATE

SIXTY-EIGHTH CONGRESS

SECOND SESSION

PURSUANT TO

S. Res. 168

AUTHORIZING THE APPOINTMENT OF A SPECIAL COMMITTEE TO INVESTIGATE THE BUREAU OF INTERNAL REVENUE

DECEMBER 15 AND 16, 1924, AND
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SELECT COMMITTEE ON INVESTIGATION OF THE BUREAU O
INTERNAL REVENUE

JAMES COUZENS, Michigan, *Chairman*.

JAMES E. WATSON, Indiana.
RICHARD P. ERNST, Kentucky.
ANDRIEUS A. JONES, New Mexico.
WILLIAM H. KING, Utah.

INVESTIGATION OF BUREAU OF INTERNAL REVENUE

MONDAY, DECEMBER 15, 1924

UNITED STATES SENATE,
SELECT COMMITTEE TO INVESTIGATE THE
BUREAU OF INTERNAL REVENUE.
Washington, D. C.

The committee met, pursuant to the call of the chairman, at 10 o'clock a. m., in room 410 Senate Office Building, Senator James Couzens presiding.

Present: Senators Couzens (chairman), Watson, and Ernst.

Present also: Earl J. Davis, Esq., and L. C. Manson, Esq., of counsel for the committee.

Present on behalf of the Bureau of Internal Revenue: Mr. C. R. Nash, assistant to the Commissioner of Internal Revenue; Mr. Nelson T. Hartson, Solicitor Bureau of Internal Revenue; Mr. S. M. Greenidge, head engineering division.

The CHAIRMAN. Mr. Davis, do you want to finish any of the other cases before we start the consideration of this case?

Mr. DAVIS. Those other matters, Mr. Chairman, have not yet been completed, and I thought we would complete them all before we took them up further; therefore, I think we had better go on with this case and then go back to the other cases on the record when we have them completed.

The CHAIRMAN. All right.

Mr. MANSON. The matter that we desire to call to the attention of the committee this morning is the amortization claim of the United States Steel Corporation.

The amount of amortization claimed is $83,482,961.18. The amortization allowed by the unit was $55,063,312.60. The amortization considered proper by your counsel and engineers, is $27,136,987.89. The overallowance is $27,926,014.01. The difference in the tax is $21,438,513.69.

Counsel for the committee in this matter take no exception to the allowances which have been made in the case of property entirely discarded from use, nor to the allowances which have been made representing the difference between the war cost and the cost of reproduction since the war. The difference arises entirely with respect to the determination of value in use of property which is in use by the steel corporation.

There were two engineering investigations made of this claim by the engineers of the Income Tax Unit.

The first investigation was made in May and June, 1920. The first engineers isolated the particular property upon which amortization was claimed, and determined the use to which it was actually

being put at that time, as well as its general usefulness in the going business of the taxpayer. According to their findings, the property was then, and will continue to be, 100 per cent in use.

The second investigation was made some time in the year 1922. With the exception of some special facilities, the engineers making the second investigation lumped all of the property—and that is particularly true of the manufacturing property—and determined the percentage of use of all of the taxpayer's property, including the property upon which amortization was claimed. This was made the basis of the amortization allowance.

The tax in this case has not been assessed, or, at least, this claim has not been finally passed upon. The amortization, however, has been determined by the engineers of the Income Tax Unit, and as the amount of that amortization has been accepted by the taxpayer the amount of the amortization is a closed question, unless it is reopened by some external force.

For the purpose of stating the method used by the engineers of the Income Tax Unit in determining value in use I will take the case of pig-iron facilities, which is typical of the method applied to all general facilities, that is, to all manufacturing facilities, and is worked out in accordance with the same formula that is applied to all of them.

In the case of pig-iron facilities the average production and the average capacity for the six pre-war years, 1910 to 1915, inclusive, were determined. It was found that the average capacity for that period was 131.3 per cent of the average production. This percentage was adopted as expressing the normal ratio of pig-iron capacity to pig-iron production. The average production for the post-war years, 1921 to 1923, inclusive, was determined by using the actual production for 1921 and estimated production for 1922 and 1923. The average of these three years thus determined was then multiplied by 131.3 per cent to determine the necessary postwar capacity. The necessary postwar capacity was then found to be 80 per cent of the actual capacity for 1921, and the value in use was determined to be 80 per cent. I might say also that the 80 per cent was found to be the value in use of the facilities for the production of steel ingots and of the facilities for the production of billets, blooms, and slabs. Pig iron, ingots, billets, blooms, and slabs are the primary products of the United States Steel Corporation, as far as iron and steel production are concerned.

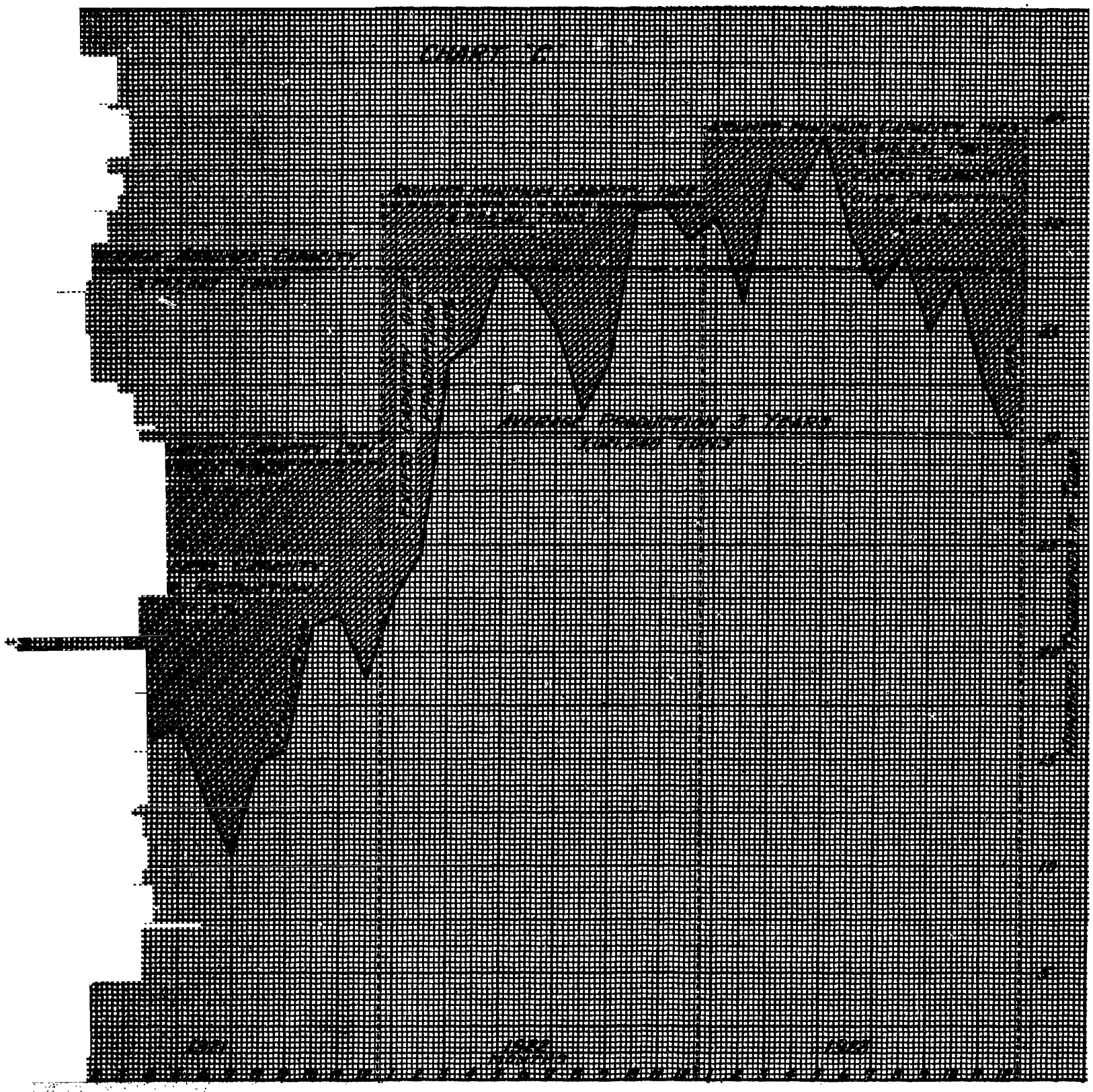
Your counsel takes exception to both the formula used in this case and to the factors which have been used in applying the formula.

We will consider, first, our objections to the formula. The method used by the Income Tax Unit adopts the average of required capacity as the maximum capacity which will have a value in use to the taxpayer's going business.

Senator WATSON. Mr. Manson, do you want to finish your statement before any questions are asked?

Mr. MANSON. I will be glad to answer any questions, Senator.

Senator WATSON. I just want to ask whether or not the formula used in this particular instance was different from the formula used in other matters of like character?



—26. (Face p. 1017.)

Mr. MANSON. I must answer that question from information, Senator.

Senator WATSON. Yes.

Mr. MANSON. My information is——

Senator WATSON. Of course, I do not know. I am just asking for information.

Mr. MANSON. All that I know about it is what is told me.

Senator WATSON. Yes.

Mr. MANSON. My information is that there is no uniformity of treatment in the determination of amortization; that it depends very largely upon the personal view of the engineer who happens to make the examination and whether or not the taxpayer is willing to accept that view.

An averaged required capacity necessarily implies a required capacity in excess of the average to meet the demand during peak periods. We do not mean to take the position that the capacity necessary for postwar operations should be such that the taxpayer would be enabled to fill every order immediately upon its receipt; but we do take the position that the taxpayer has use for those facilities which are required to fill orders within the period in which the customers of the business demand that they shall be filled. That is rather an involved sentence, but what I mean to say is that in the steel business, it is not customary for customers to wait more than a year after they give an order for that order to be filled. The taxpayer must therefore have the facilities with which he can produce a year's demand for steel within a year; and we believe that in the steel business a year is the maximum period over which you can average the capacity for production.

Annual production in the steel business is actually on an average basis. To illustrate that, I call the committee's attention to a little lead pencil chart that I have prepared over Sunday. We will call that chart Chart C.

The heavy, irregular line on that chart represents the actual production from month to month of steel in a hypothetical plant, where the production varies, as did the total production of steel in the United States during the years 1921, 1922, and 1923. We did not have the production of steel by the United States Steel Corporation by months for those years, and therefore, in this hypothetical case, our production line is parallel with the production of all of the steel in the United States, or any given percentage of it, during each month.

I would like to have that Chart C made a part of the record.

(The chart referred to as Chart C is as follows:)

Senator WATSON. I wish you would explain that chart.

Mr. MANSON. This line is the line that I referred to [indicating on chart]. That is the production line [indicating].

Senator WATSON. Is that actual or assumed?

Mr. MANSON. As I have just stated, that is an assumed production, equal to all of the steel produced in the United States, or equal to 50 per cent of it or 25 per cent of it. It follows the same line up and down, month by month, as the entire steel production of the United States follows. The space between the small squares here represent one month.

We have assumed a capacity for each year which is equal to the maximum production for any one month in that year.

Senator WATSON. That is the maximum actual production?

Mr. MANSON. That is the maximum actual production.

Senator WATSON. Then, your assumption is based on actual production?

Mr. MANSON. On actual production.

The dotted horizontal lines running across the page within each year represent the assumed minimum capacity, that assumed minimum capacity being equal to the greatest production of steel in any one month during that year. The assumed minimum capacity for 1921 is here [indicating]; the assumed minimum capacity for 1922 is here [indicating]; and the assumed minimum capacity for 1923 is here [indicating].

In each instance it will be noted that there is a vacant space between assumed minimum capacity and the production line. That vacant space represents the excess of capacity during that year over production.

Senator WATSON. That is, over actual production?

Mr. MANSON. Over actual production.

Senator WATSON. So that in 1921 the excess over actual production was 36.3 per cent?

Mr. MANSON. That is right. In 1922, in this case, it is 16 per cent, and in 1923 it is 14 per cent.

Senator WATSON. Now, let me ask you this question right there: You assume an average capacity of 3,797,000 tons in one year, 4,083,000 tons in another year, and 4,416,000 tons in another year.

Mr. MANSON. The Senator is not referring to the same thing. The assumed minimum capacity for 1922 is 4,083,701 tons.

Senator WATSON. Yes.

Mr. MANSON. Because the highest monthly production within that year was equal to one-twelfth of that amount. The line that the Senator has just referred to, showing the 3,797,827, is the average assumed capacity for the three-year period.

We have then averaged the production for the three years, and we have averaged the assumed capacity for the three years. The line between the average assumed capacity and the average production is equal to 20 per cent. That 20 per cent is equal to the average of the areas in each year.

Senator WATSON. What do you mean by "the areas"?

Mr. MANSON. I mean the areas representing excess of capacity over production. The average assumed capacity line falls below the minimum of capacity required for 1922, and below the minimum capacity required for 1923, even though it is in excess of the average production for three years by the amount of the excess of capacity over production for each of the three years.

Senator WATSON. Let me ask you another question at that point: In determining the amount that this taxpayer should be assessed, did the engineers, or those who had final authority in reaching an ultimate decision, base it upon an assumed or hypothetical proposition of basis, or did they take the actual figures of the amount earned in each year?

Mr. MANSON. As I have just stated, I appreciate the fact that the formula is involved, and I want to make it plain. The hypothetical case before you illustrates the method employed by the engineers.

Senator WATSON. That is why you used it.

Mr. MANSON. That is why I used it.

Senator WATSON. Yes.

Mr. MANSON. Except that it is much simpler, because it eliminates increases in the capacity due to business policy and merely bases increased capacity upon actual requirements.

The point I wish to show by this chart is that an average capacity which exceeds average production by the average of the excess of capacity over production for each of the years within the period will not provide adequate facilities to take care of the production within the peak year.

The method adopted by the engineers of the Income Tax Unit was to ascertain the average production which is represented by this area market 20 per cent, by taking the average of the area during the pre-war years, 1910 to 1915. They then took the actual production for 1921. They had the actual production for several months of 1922, but not for the entire period.

Senator WATSON. Why could they not take the actual production for the entire period?

Mr. MANSON. This case, Senator, is not as yet closed. We are now in the year 1924. The actual production for both 1922 and 1923 is now known. The actual production for both 1922 and 1923 was know at the time this case left the engineers who determined amortization.

The CHAIRMAN. I would like to point out to the Senator at this point, that one of the objections that the engineers take to this settlement is that they used the very poor business year of 1921. They took the actual figures for 1921, which was a very poor business year.

Senator WATSON. As the basis for computation for 1922 and 1923?

The CHAIRMAN. Yes.

Senator WATSON. Although you say that the actual production was known?

Mr. MANSON. The actual production was known to the engineers before this case left the men who determined, or whose business it is to determine, amortization.

Senator WATSON. That is what I was trying to get at in the beginning, whether or not they used formula to determine it, or whether they used the actual figures.

Mr. MANSON. The formula I am discussing.

Senator WATSON. They used the formula when they did not need to use it, as I understand it, because they had the actual production?

Mr. MANSON. They used a formula for the purpose of determining their estimated production.

Senator WATSON. Well, if they had the actual production they would not have needed to use the formula.

Mr. MANSON. Oh, no.

The CHAIRMAN. I disagree with that.

Senator WATSON. That is what I am trying to get at.

tion the peak year. It merely levels out the irregularity of production from month to month within each year.

This method of averaging years, for the purpose of arriving at the value in use, wholly ignores the value to the taxpayer of being ready to serve his customer when the customer desires service. It is a well-known fact that peak years are the times when the capacity of most competitors is absorbed, and competition is restricted to those who have excess capacity, which may be utilized for the purpose of expansion. It is those periods when prices are high, when profits are large. It is the period toward which every business man looks as affording an opportunity to make money.

I do not mean to say that a manufacturer, who has a fixed and established policy to produce a level amount of goods from year to year, should be held to have a value in use for facilities which he may use, but which, under his business policy, he will not use, because he has no desire to expand. That is not the case with the United States Steel Corporation.

I have laid before the committee several charts showing the actual capacity and the actual production of the four general products of the United Steel Corporation—pig iron, steel ingots, billets, blooms and slabs, and finished steel. I am referring to the diagrams in front of you, Senator. (Exhibit F, charts D, E, F, G.)

An inspection of those charts will show that the capacity line has steadily increased. It has not always increased at the same rate from year to year; however, there is a steady increase from 1910 to 1923, inclusive. That increase, representing the business policy of the United States Steel Corporation, bears little, if any, relationship to the highly fluctuating production line shown beneath it. This policy is indicated by that chart, and is shown by the figures contained in Table 1, which I have laid before the committee. This table shows production and capacity for each year, in the case of these four principal products, and shows the relationship of capacity to production, expressed in percentage. It also shows the increase or decrease in capacity.

In the year 1919, subsequent to the war, the United States Steel Corporation, in pursuit of the policy to which they had adhered, both before and during the war, increased their steel ingo capacity by 132,500 tons and their rolled and finished steel capacity by 560 tons?

The CHAIRMAN. Do you mean 560 tons?

Mr. MANSON. Yes, sir; 560 tons; that is the smallest figure.

In 1920 they increased their pig iron capacity by 235,915 tons, their steel ingots capacity by 13,800 tons, and their rolled and finished steel capacity by 9,208 tons.

In 1921 they increased their pig iron capacity by 94,900 tons, their steel ingot capacity by 352,500 tons, and their rolled and finished steel capacity by 429,074 tons.

In 1922, they increased their pig iron capacity by 80,660 tons, their steel ingot capacity by 350,400 tons, their billet, bloom, and slab capacity by 600,485 tons, and their rolled and finished steel capacity by 33,676 tons.

In 1923 they increased their pig iron capacity by 1,315,544 tons, their steel ingot capacity by 251,488 tons, their billet, bloom, an slab

capacity by 505,812 tons, and their rolled and finished steel capacity by 142,878 tons.

In all, since the war, since the close of the amortization period, the United States Steel Corporation has increased its pig iron capacity 1,727,010 tons its steel ingot capacity 1,100,688 tons, its billet, bloom, and slab capacity, 1,106,297 tons, and its rolled and finished steel capacity 614,796 tons.

The CHAIRMAN. All of which indicates that the Steel Corporation at no time considered that it had any excess postwar capacity?

Mr. MANSON. Yes; this goes to show that if the United States Steel Corporation at any time considered that the additional capacity installed during the war represented any loss to them whatever, they have increased that loss progressively year by year, right up to the present time, by installing the additional capacity to which I have just called your attention.

The CHAIRMAN. Have you reduced that to percentages, or have you just got it in tonnages?

Mr. MANSON. I have not had an opportunity to reduce it to percentages.

The CHAIRMAN. So as to be able to visualize the whole operation of the Steel Corporation, I wish you would reduce that to percentages, in order that we may get some idea of what the percentage is.

Mr. MANSON. I might be away off, but I should say it would be about 10 per cent.

Senator WATSON. Did they manufacture to the limit of their capacity during the war period?

Mr. MANSON. In 1916, they manufactured in excess of their capacity. What I mean by that is that by overloading their equipment and by extending the hours of labor beyond normal, they exceeded their rated capacity by a small margin.

Senator WATSON. And until what year did they keep that up—until the close of the period you are referring to?

Mr. MANSON. No; by no means. It is apparent from the figures that the overloading in 1916 was so great that their capacity broke down and the drop off in 1917 and 1918 is very marked.

Senator WATSON. In actual production?

Mr. MANSON. In actual production.

The CHAIRMAN. Even though we were in the war?

Mr. MANSON. Even though we were in the war, but I would call the Senator's attention to the fact that the price of steel, when it came under Government regulation, dropped.

Senator WATSON. Yes; I remember that.

Mr. MANSON. All of which goes to show that it has been the policy of the United States Steel Corporation from the beginning to take advantage of the high prices at all times to make their production a minimum, even though it exceeded their capacity and broke down their equipment, when the price was high; I say that any policy of amortization which bases the requirements of the United Steel Corporation upon averages ignores the very policy of the United States Steel Corporation which they themselves have determined produces for them profits.

Senator WATSON. Do you know how much below capacity they operated in 1917 and 1918?

Mr. MANSON. The figures contained in Table 1 will show that, as well as the charts which lie before the Senator.

Senator WATSON. Yes, I was just wondering if you had it in your mind.

Mr. MANSON. No; I have not it in mind, but I can get that for you from the charts.

In 1916 the pig-iron capacity of the United States Steel Corporation was 99.5 per cent of its production. In other words, its production exceeded capacity by one-half of 1 per cent.

In 1917 its capacity was 115.7 per cent of its production. There was a margin of 15.7 per cent between capacity and production.

In 1918 its capacity exceeded its production by 115.4 per cent. There was a margin of 15.4 per cent.

Now, I do not mean to say that that margin between capacity and production was not required. It is my own opinion, from what study I have given to this case, that a part of that margin, at least, is due to a break down of capacity on account of overloading in 1916. For instance, there is one way in which you can wipe out this margin between your capacity and production, and that is by deferring maintenance. Suppose you have a battery of six boilers, or you have a battery of six furnaces, one of which is supposed to be closed down all the time for repairs—to be cleaned, and so forth. Instead of closing that down, you keep it in operation. The accumulated deferred maintenance finally results in the complete breakdown, and, for that reason, you can not always measure capacity by production. There is always bound to be, in any plant, a marked decreased capacity and production, due to that very feature alone, in addition to the margin which is due to the irregularity of the business.

Where you have a steady demand, month in and month out, or where your business is such that the filling of your orders can be deferred, so that you can carry the peak of one month over into the slack of the next, you can approach nearer to capacity; you can bring your production line nearer to capacity than you can where your production is necessarily irregular from month to month. Where your plant is perfectly balanced, with but one product, like the Ford plant, for instance, and every machine in that plant has a certain service in relation to another machine, so that 100 per cent production in one machine will give 100 per cent of raw material for another machine—where that is possible, your production line can approach nearer your capacity line than in a case where you manufacture several products. You may have no demand for one of those products during one period. Therefore, your production with respect to that product falls off, though you have to have the equipment to produce that product, if you expect to meet that trade.

I have often used an expression with reference to this whole amortization question which, in my opinion, goes to the very seat of it; that is, that you can not use half a lathe. You may need a lathe in your business; you can not conduct your business without that lathe. At the same time it may not be necessary for you to use that lathe over half time. But it can not be said that that lathe has only 50 per cent value in use because it is only used half the time. You can not get along without it. The mere fact that you have it

there, the mere fact that it is ready to be used, the mere fact that it is essential to your business, makes it necessary for you to buy a whole lathe. You can neither buy nor use 50 per cent of a lathe; and that is typical of a great many things in the manufacturing world.

Senator WATSON. Let me ask you this question: Suppose the United States Steel Corporation, overused and overworked its plant in 1916, so that in the next year, 1917, they produced 20 per cent less. What has that to do with this problem of taxation as related to amortization?

Mr. MANSON. I will come to that later——

Senator WATSON. That is the question I wanted to ask, but I do not want to interfere with the thread of your discussion at all. If you will come to that later, it will be all right.

Mr. MANSON. I am very pleased to have the Senator ask me any questions. It does not discohcert me at all.

Senator WATSON. Well, I hope not; but I did not see what that would have to do with the question of taxation as related to amortization.

Mr. MANSON. It has this to do with it, that it has been made the basis by the Income Tax Unit of determining what loss a manufacturer has suffered by reason of the fact that he is not able to use all of his machinery to its full capacity. That is material here, it is the very basis——

Senator WATSON. Did the United States Steel Corporation claim that because they did not manufacture to capacity, they are entitled to amortization?

Mr. MANSON. They did concede that there was a margin in their claims. They conceded that there was a margin between production and capacity which necessarily existed. They conceded that there was a margin between the two which necessarily existed. They made the same claim that the engineers have allowed. They claimed that that margin should be applied to the production in the postwar period; in other words, they conceded that they needed more capacity in the postwar period than would be reflected by their production line.

Senator WATSON. On that, they added amortization?

Mr. MANSON. Yes, sir.

Senator WATSON. Was that the basis on which amortization was allowed?

Mr. MANSON. That is the basis upon which it was allowed.

Senator WATSON. That is what I wanted to get at.

Mr. MANSON. Yes; but what I wanted to call the Senator's attention to is this, that what I have just shown by the use of this chart C is that this margin which they added to production was only to take up the slack from month to month or within one year, that it is not sufficient to provide for the additional margin which is required if you are going to take care of the demand in peak years, as in the case of 1922 and 1923.

I have just shown from this chart that an average capacity, arrived at by averaging production for 1921, 1922, and 1923, in this hypothetical case, and adding 20 per cent, which is the average of the excess of capacity over production during those three years, will not take care of the actual requirement during the peak year.

In other words, when your margin of capacity over production is only sufficient to take care of the difference between capacity and production from month to month, it is not sufficient to take care of the difference between the production in a slack year and the production in a peak year. Is that clear?

Senator WATSON. I get your idea; yes. In 1916, you said that they overworked their plant so that it broke down. I am assuming that you mean by that that some of the machinery became practically useless for the time being.

Mr. MANSON. Yes.

Senator WATSON. Are they entitled to amortization?

Mr. MANSON. Because of that fact?

Senator WATSON. Yes.

Mr. MANSON. No. That question does not enter in here.

Senator WATSON. Well, I am just asking for my own information.

Mr. MANSON. No; it does not enter in here. The only reason I mention that is this: The engineers, in this case, have left out of consideration the year 1916 in determining the average of that margin between production and capacity. I maintain that they should have left it out. The excuse they offer for not reopening this case when they found that their estimates of production for 1923 and 1922 were away below the actual production, is that if they did reopen it and determined their amortization upon the basis of the actual facts as they then knew them to be, instead of on the basis of facts as they had assumed them a year and a half before, the Steel Corporation might come in and say that they should use the year 1916, which, as I have just explained, was an entirely abnormal year, in arriving at the difference between production and capacity. That is the only place in this whole matter where that question is at all material.

Senator ERNST. Mr. Manson, I could not be here at the opening of the session to-day, as I had an appointment at the White House. I would like to know for what purpose you are now taking up the case of the United States Steel Corporation?

Senator WATSON. I want to say, for the record, that the other members of this committee belong to the Finance Committee, and that committee will have not to exceed, I think, three meetings at this session. They have a meeting to-day at 10.30, which is very important, and I am compelled now to leave and go to that meeting.

Senator ERNST. Why not postpone this meeting?

Senator WATSON. And in addition to that, Senator Ernst, Senator King, and I are members of the Mayfield subcommittee, which meets every morning, practically. They are not meeting this morning, but we are compelled to be in attendance on that committee part of the time. We hope to close the hearings definitely on Thursday, so that hereafter we can devote more time to this committee. I am explaining my absence heretofore and when I may be absent in the future, in order that it may go into the record and be understood.

The CHAIRMAN. That is all right.

Senator ERNST. As I, too, shall have to leave the meeting shortly, I would like to have my question answered, Mr. Chairman. I want to know why we are taking up the case of the Steel Corporation.

Mr. MANSON. I will restate it for the benefit of the Senator.

Senator ERNST. You need not do that on the record a second time, but I would like to know why you have selected this case.

Mr. MANSON. In the first place, the engineers called this case to my attention. How they got onto it I do not know. They told me what questions were involved in it. It was not in my mind as a case to be taken up, but when I was told what questions were involved, I selected it for two reasons, one being that the case was not finally closed; in other words, while amortization had been determined, the whole question was open, and if the Government was going to lose any money, I felt that that loss might be stopped before it was too late to do so. The other reason was that this case is the best illustration I know of of how the general subject of amortization has been handled in many cases.

Senator ERNST. Is your engineer of the opinion that the case has been handled correctly or incorrectly by the Government?

Mr. MANSON. He is of the opinion that the Government has been handling it incorrectly in certain particulars, and I will point those out in just a moment.

Senator ERNST. And you are taking up those features, so as to call the attention of the committee to them? Is that the point?

Mr. MANSON. That is right.

Senator ERNST. I just wanted to know why you were taking up this particular case.

The CHAIRMAN. Mr. Manson, you did not tell the Senator that this represents about 45 or 50 per cent of the steel industry in the country.

Mr. MANSON. Yes; it does.

The CHAIRMAN. And therefore it is important.

Mr. MANSON. Forty-four per cent.

The CHAIRMAN. Forty-four per cent.

Senator ERNST. I am sorry that I have to go now.

Mr. MANSON. When we got off the main track, I was discussing the increase in the capacity of the United States Steel Corporation, which had been brought about by postwar expenditures. We have segregated items running into several millions of dollars upon which amortization, due to loss of value in use, has been allowed, and which we have found have been duplicated since the war. We have not had the time, nor the force, with which to check up all of these duplications, but we have found many millions of dollars expended since the war to increase capacity by adding facilities which are used for exactly the same purposes as the facilities upon which amortization has been allowed.

My next objection to this formula is that it ignores the salvage value of the amortized property retained in use; in other words, property is found to have a value in use of 80 per cent. That property might have a salvage value of, we will say, 20 per cent, and the taxpayer is allowed 80 per cent of the 100 per cent of the postwar cost of reproducing that property, and there is no deduction made to represent the salvage value of the 20 per cent which is amortized.

I have a case in mind which illustrates this objection.

During the war period, this taxpayer purchased 190 standard-gauge cars, upon which it has been allowed 20 per cent amorti-

zation for loss of value in use. Assume that the postwar cost of reproducing these cars would be $1,600 each. The reason I have taken the postwar cost is because I do not want to complicate this illustration with a matter of the difference between the war cost and the postwar cost, which we concede they are entitled to.

At $1,600 each the postwar cost for those cars would be $304,000. The taxpayer has been allowed 20 per cent amortization, or $60,800, and it still has 190 cars. If the 190 cars are 80 per cent in use, 152 cars 100 per cent in use will serve the purpose of the 190 cars. Not needing the 38 cars not in use, the taxpayer sells them for $1,000 apiece. I deem that that would be a fair proportion. It is a well known fact that after the war we had a period when the shopmen of the railways throughout this country were on strike, and every railroad in the country was in need of cars, and there would have been no trouble in the Steel Corporation selling 38 cars, if they had any desire to do so, at that figure or more.

Selling 38 cars at $1,000 apiece, the taxpayer receives $38,000 for the cars, and as the cost of those 38 cars was $60,800, his loss is $22,800, for which amount he receives amortization. Thus, if he sells the surplus cars, he receives $38,000 amortization less than if he keeps them, and he is short 38 cars.

Determining the value in use of facilities by comparing the production in two periods, he ignores the fact that in one period the production may be due to overtime, to deferred maintenance, to overloading equipment, or to bringing into use facilities carried as reserves to meet breakdowns.

This formula ignores the comparative useful life of several pieces of equipment, the total capacity of which is the basis of comparison.

This formula assumes that the entire plant which is being averaged consists of pieces of equipment all of which have identically the same useful life ahead of them, and all of which have the same efficiency—and that is something which can not be indulged in in the case of the United States Steel Corporation, because it is a well-known fact that back in 1901, when the United States Steel Corporation was organized, it consisted of an aggregation of old plants, many of which had been in operation for a great many years.

The policy of the United States Steel Corporation, as will be found by analyzing their inventory of plant equipment, shows that they have not increased capacity by the addition of additional plants and by adding to the number of the major items in their plant inventory; but that from year to year, as the old equipment has worn out, or has become obsolete, they have supplanted old equipment with new equipment, more modern in design, more efficient, and having greater capacity. So that while the plant of the United States Steel Corporation, taken as a whole, to-day represents about the same number of major items as it represented 13 or 14 years ago, which is as far back as our figures go, there has been a vast increase in capacity and a vast increase in production. There has been a marked change in the plant, but the change has been due to the replacement of a piece of equipment which is the last word in production efficiency for a piece of equipment that is worn out.

During the war, in pursuit of that policy, blast furnace No. 4 in one of the Carnegie Steel Co.'s plants was rebuilt. The value in

use has been determined to be 80 per cent, and 20 per cent amortization has been allowed, amounting to $30,077.

In 1920, blast furnace No. 5 in the same plant, and in 1922, blast furnace No. 3 in the same plant were rebuilt. The depreciation rate on blast furnaces is somewhere between 4 and 5 per cent, and I will assume, for the purposes of discussion, that the useful life of blast furnaces is about 20 years.

Here is the situation that we had in that plant during the war. One blast furnace can no longer be used.

It must be replaced. It stands between two others. One of them has one more year of useful life, and the other has three. The middle furnace is rebuilt, and when it is rebuilt it is a brand new furnace. At the close of the amortization period, that furnace has 20 years of useful life ahead of it. Furnace No. 3 alongside of it is about gone. It was not torn down until 1920. It has a capacity, and although that furnace can be used at the most one year, and can produce at the most 50,000 tons of metal, it is given the same value in use according to this formula as the brand new furnace, which has a 20-year life ahead of it, and if it has the same annual capacity it is capable of producing a million tons of metal.

I submit that the value of equipment in the business of any taxpayer depends not only upon the amount of product that that piece of equipment can produce within a given period, but also upon the length of the useful life it has ahead of it.

I can illustrate that same theory with a rather homely illustration that occurred to myself the other day. I looked at my shoes, and I thought that they had about two or three weeks to go, and it was time for me to buy a new pair of shoes. I bought a new pair of shoes. They cost me $14.50. I can still wear the old shoes. According to this formula my new shoes for which I paid $14.50 last Saturday, have a value in use to me of 50 per cent because I can still wear the old shoes. But I only have one pair of feet for two pairs of shoes. If to-night I should give away that old pair of shoes or burn them up, then my new shoes immediately have a value in use of 100 per cent; and to carry this formula to its logical conclusion all I need to do to make $7.25 to-night is to burn up those old shoes.

This formula ignores the difference in the efficiency of facilities in determining their value in use. The efficiency of a facility is the thing that makes profit. Inefficiency of facilities is one of the things that cause losses in business. A manufacturer has a brand new facility, which is the last word in economical operation and in cheap production. Alongside of it is another facility, the operation of which is so expensive and so inefficient that he can not afford to use the second piece of machinery at all, except when prices are so high that operating cost becomes immaterial. Yet under this formula the capacity of these two pieces of machinery is averaged in determining the value in use on the new equipment. If those two pieces of machinery were of equal capacity, the new piece of machinery would receive a value in use of but 50 per cent, notwithstanding the fact that it might be the only piece of machinery in the shop of that manufacturer which he could afford to operate under normal conditions. He might be still holding his old piece

of machinery to meet a breakdown in the new machine. He might be holding it to meet an abnormal condition when prices are high. He might intend to supplant it the minute that he has the capital available for doing so, and yet, although the new piece of machinery is absolutely essential, and is, in fact, in operation 100 per cent of the time, though he can not get along without it, and although it is the one thing upon which he is dependent to conduct a profitable business, it would receive a value in use of 50 per cent, because he had in his plant another machine of equal capacity, but which he can only use upon special occasions.

The CHAIRMAN. I would like to ask you at this point how you distinguish between percentage in use and value in use. As I get your argument, it is entirely devoted to the question of value in use, though, at the inception of the argument, I understood you to use percentage in use. When you say "percentage in use," are you referring to percentage of capacity in use, or percentage of value in use?

Mr. MANSON. All that I am discussing is the matter of value in use. That is the thing that determines whether or not the taxpayer has suffered a loss.

The CHAIRMAN. But is that the theory on which the bureau approached amortization?

Mr. MANSON. No; the bureau approached amortization upon percentage in use.

The CHAIRMAN. Yes; and you contend that they should not have taken solely the percentage in use, but rather the value of the percentage in use?

Mr. MANSON. The value of the percentage in use.

For instance, I contend, in the case of those blast furnaces, that in the year 1919, when blast furnace No. 4 was a brand new furnace, and had 20 years of life ahead of it, when furnace No. 3, or furnace No. 5, had only one year of life ahead of it, and the other furnace had three years of life ahead of it, if you were going to use this formula, you would be bound to at least multiply the percentage in use that you give to the new furnace by the number of years of useful life. In other words, you would at least multiply the percentage in use that you give to each of these furnaces by the number of years of useful life ahead of it, in order to determine their value in use.

Permit me now to call the committee's attention to the fact that while $163,568,382 was spent during the years 1916, 1917, and 1918, for capital expenditures on plant, $167,560,994, or $4,000,000 more than was spent during the war period, has been spent since the war for improvements, additions, and the kind or replacements which increase capacity and reduce cost.

Under the engineers' theory of giving all of these facilities the same value, regardless of their life and regardless of their efficiency, that $167,000,000 spent by the Steel Corporation since the war in money which is added to a loss of some fifty-odd million, which the engineers maintain that the corporation incurred as a result of their war expenditures.

I would now call the committee's attention to the fact that I am not the only one who objects to the use of this formula. This formula is especially condemned by the income tax ruling No. 2101, contained in Internal Revenue Bulletin No. 44, volume 3, issued November 3, 1924.

I referred to this ruling in connection with the Berwind-White case, and it so on all-fours with the United States Steel Co., case in every particular that I deem it proper to read it in full to the committee at this time. (reading:)

In determining the value in use for the purpose of the amortization deduction claimed by the M Co. the Income Tax Unit has used as a basis the hours of labor or machine hours in the entire business, on the theory that such a method truthfully reflects the use to which the equipment is being put.

I would call the committee's attention to the fact at this point that the only difference between the facts involved in the ruling and the facts in the Steel Co. case is that in the facts involved in the ruling they determine the usefulness by considering the hours of labor or machine hours, while in the case of the United States Steel Corporation they considered production. It is manifest that either hours of labor or machine hours are readily translatable into production, and that, as a matter of principle, there is absolutely no difference between hours of labor, machine hours, and production, unless, of course, the machine hours or the hours of labor or the products are confined to the particular facility upon which amortization is claimed.

Proceeding with the ruling:

"This basis, however, does not determine the value in use of particular assets or equipment. If none of the facilities or equipment are, under postwar conditions, useless, but are in actual and economic use to their ordinary, normal capacity in postwar times, the value in terms of use is not reduced. It is not necessary, however, that such facilities or equipment be operated for the number of hours per day or be operated to the full capacity by overtime work or continuous shifts as was required during the war in order to hold that such equipment or facilities are being fully used or required under postwar conditions.

If, however, facilities required for the purpose of producing articles contributing to the prosecution of the war are being used to the capacity ordinarily expected or for which designed and are needed in the business to that extent, no reduction in value in terms of use is shown. Even if the value in use of certain facilities could properly be determined by the number of hours of labor, this method could only apply to particular facilities affected. The number of hours employees worked on certain machinery or equipment would have no bearing or connection with the value in use of other facilities or of warehouses, buildings, or other specific facilities where employees did in fact work full time or have longer hours and which were being used to full, normal capacity, although throughout the entire enterprise the hours of labor were reduced.

In determining the value in use it is necessary to determine such value as to the specific facilities erected or acquired for production of articles contributing to the prosecution of the war, and in doing so it must be determined, first, whether the specific facilities are being used to their full, normal capacity, and, second, whether such capacity is needed for the postwar business. If all of the property is required to be used to its ordinary, normal capacity in postwar times, certainly, merely because peace-time business did not require the long hours and overtime as were required under war conditions, it could not be held that the facilities did not have as great a value in use as during the war period. In such cases, however, article 184 of Regulations 62 provides that in no case shall the value in use be greater than the replacement value. The value in use being 100 per cent in such cases, the deduction should be based upon the replacement value of such facilities.

It also appears in this case that the taxpayer constructed additions to its plant in 1919 and 1920 which were more extensive than its war-time additions.

Exactly as the United States Steel Corporation has, to the extent of $41,521,794 in 1919, $37,677,329 in 1920, and $36,868,523 in 1921, after excluding any amortization which we concede should be allowed, from those figures.

The business during these two postwar years exceeded the war business. In determining the value in use of facilities or equipment, those acquired during the war years shall not be considered to have been reduced in value in terms of use where the taxpayer acquired in post-war years additional facilities and increased capacity of its plant, unless it can be satisfactorily shown that the facilities acquired during the war years were not of proper type or as capable of economic use in postwar times as the new facilities. In other words, when a taxpayer has and uses in postwar years not only the facilities acquired during the war but additional facilities subsequently acquired for the same uses and purposes and of substantially the same character as those acquired during the war years, it is prima facie evidence that any reduction of value in terms of use of the war facilities was caused by the overexpansion in post-war years, and not as a result of facilities not being useful and needed to full, normal capacity for post-war business. In such cases it could not be said that the war-time facilities were reduced in value in terms of use. If the taxpayer has a warehouse which he erected during the war years, and postwar business demands required the erection of another warehouse of similar kind and capacity, and the one erected during the war times was not used to full capacity after the amortization period solely because of the subsequent erection of the other buildings, no reduction in value in terms of use is shown.

That exact language can be applied to the case of the three furnaces that were rebuilt by the United States Steel Corporation.

Such a situation was not contemplated by the statute or the regulations made pursuant thereto. The fact that additions to plant and facilities of substantially the same kind, character, and use were made in postwar years to a greater extent than during the war years prima facie establishes the fact that the war facilities were just as valuable in terms of use for postwar business as during the war. Unless it be shown that after the amortization period the war facilities were to a certain extent not needed, no reduction in value in terms of use is shown.

In my opinion that is the very crux of the whole amortization question.

Take the case of the lathe that I mentioned a little while ago. You may have use for it for only 50 per cent of the time. You may have alongside of it another lathe that has exactly the same capacity, but because of physical conditions or operating efficiency you can not profitably use it, and therefore you need the lathe that you put in during the war period. If you need any in your business, it has 100 per cent use. If you do not need the full thing—for instance, if your facilities are divided into a dozen items, and you only need 10 of them, then you have an excess of capacity.

Clearly this is what Congress had in mind in enacting the amortization provision. In cases, however, where the value in terms of use had not been reduced, the regulations provide that the value in use shall not be greater than the replacement value. The deduction would therefore be confined to the difference between the cost of the facilities acquired during the war years and the replacement value thereof. Since the taxpayer had no Government contract of subcontracts, and neither produced nor sold articles to the Government or for the use of the Government, it must be held that it was producing articles contributing to the prosecution of the war only from April 6, 1917, to November 11, 1918. The Income Tax Unit has properly so held in the adjustment of this case.

However, it appears that a portion of the equipment or facilities was erected or acquired by the taxpayer after the expiration of this period. In cases where the taxpayer had not commenced the erection of such facilities during the above period and had incurred no actual expense in connection therewith, he should be limited in his amortization deduction, if any, in so far as such additions, equipment, or facilities are concerned, to the liquidated or compensatory damages he would have been required to pay in the case of the cancellation of the contract or contracts for such additions or facilities. He had the option to carry out the contracts and acquire or erect such facilities or pay damages for cancellation thereof. If he chose the former, he should not be allowed any greater deduction than the actual amount he would have been required to pay under the latter alternative. Other expenses over that amount were not of necessity incurred. This does not apply to cases where the taxpayer had carried such equipment facilities to such a degree of completion that it would have been an economic waste not to complete them, or where amounts had actually been paid out, or work progressed to such a state that good business judgment would have required carrying the contract to completion.

The CHAIRMAN. Have you finished with that ruling?

Mr. MANSON. Yes.

The CHAIRMAN. The Senate convenes at 11.50 this morning for memorial services for ex-President Wilson, and I think we will have to close a little earlier to-day.

I would like to ask Mr. Hartson and Mr. Nash to hold up any settlement of this case until we have threshed out those differences of opinion as to amortization.

Mr. HARTSON. Yes; that is in line with the suggestion that the Senator made the other day with regard to all cases. That has been carried into effect now by proper instructions from the commissioner, that none of these cases which have been mentioned here in any way shall be closed.

Mr. DAVIS. I might say that that is covered in a communication, under instructions that I got from the committee to request the commissioner to do that.

The CHAIRMAN. I would like to ask Mr. Manson at this point, and I would like to have Mr. Hartson note it, whether he desires to go into these details, or whether Mr. Hartson desires to hear them, or whether Mr. Hartson or the bureau desires to take it up on the issue raised by Mr. Manson?

Mr. HARTSON. That same thought, Senator, was going through my mind. I think it would be unnecessary, in view of Mr. Manson's statement in this case, which has been very comprehensive, although he has not yet completed it, to, in a sense, prove the allegation which he said could be proved by his engineers, who made a search of the record. I think we could save time, after the conclusion of Mr. Manson's statements, by having the bureau produce such witnesses as it may have in order to explain to the committee what has been done and what might properly be done later on.

Mr. MANSON. The only thing I wish to say in that connection is that I have some tabulations of figures which bear out the statement that I have made, and I believe that those ought to be put into the record. I do not think there can be any dispute about them. They are all taken from the records, or supplied to us by the engineers of the Income Tax Unit.

The CHAIRMAN. Have you any further extended statement to make in connection with this case?

Mr. MANSON. It will take me about five or six minutes; that is all.

The CHAIRMAN. We will leave that until to-morrow, then. In the meantime, you might show the bureau these exhibits that you want to put in.

Mr. MANSON. Yes.

The CHAIRMAN. And if they have no objection, we will put them in. If they have any objection, they can state them.

Mr. MANSON. Yes.

The CHAIRMAN. Me will adjourn now until 10 o'clock to-morrow morning.

(Whereupon, at 11:30 o'clock a. m., the committee adjourned until to-morrow, Tuesday, December 16, 1924, at 10 o'clock a. m.)

INVESTIGATION OF BUREAU OF INTERNAL REVENUE

TUESDAY, DECEMBER 16, 1924

UNITED STATES SENATE,
SELECT COMMITTEE TO INVESTIGATE
THE BUREAU OF INTERNAL REVENUE,
Washington, D. C.

The committee met at 10 o'clock a. m., pursuant to adjournment of yesterday.

Present: Senator Couzens (presiding).

Present also: Earl J. Davis, Esq., and L. C. Manson, Esq., of counsel for the committee.

Present on behalf of the Bureau of Internal Revenue: Mr. C. R. Nash, assistant to the Commissioner of Internal Revenue; Mr. Nelson T. Hartson, solicitor, Bureau of Internal Revenue; Mr. S. M. Greenidge, head engineering division.

The CHAIRMAN. You may proceed, Mr. Manson, with your statement in the case of the United States Steel Corporation.

Mr. MANSON. Mr. Chairman, when the committee adjourned yesterday, I had just finished reading the ruling of the department in the matter which was decided in Volume 3, No. 44, page 6, of the Internal Revenue Bulletin.

That ruling, Mr. Chairman, is the only official ruling which has ever been laid down by the department. It is the only means of guidance that any taxpayer has as to how his amortization allowance shall be measured under those conditions. Some days ago, when that ruling was referred to, the solicitor made the remark that that ruling did not have the weight of a Treasury decision. It strikes me that it is immaterial whether that ruling is to be given the weight of a Treasury decision, because it is the only ruling and the only means of guidance which has ever been handed down.

If this law provided two means by which taxpayers similarly situated could receive relief, one of which would afford to certain taxpayers relief under the rule laid down in this ruling, and the other of which would afford to other taxpayers relief according to the rule followed in the Berwind-White case, and in this case the law would be clearly unconstitutional, because it would not afford relief to all taxpayers, similarly situated, in identically the same way.

It strikes me that it is of far greater importance that the administration of this law should be uniform than it is that even the law itself should be uniform. Were this law itself not uniform, it being public, it would be open to attack. Everyone would know its lack of uniformity; but under the secret method with which the law is

administered, no one knows, unless they are among the initiated and know that there is one rule under which the initiated, those on the inside, those that know how that business is done, can secure relief, and another rule for the public generally.

Heretofore, I have addressed my remarks to our objections to this formula, as such.

I now wish to take up our exceptions to the factors which have been used in the application of this formula to the determination of amortization in the case of the United States Steel Corporation.

As I stated in the opening of my remarks, the engineers rejected the production for the years 1919 and 1920 as being abnormal. They used the actual production for 1921 and for part of 1922, estimating the remainder of 1922 and all of 1923.

I would now call the committee's attention to the variance between the estimated production upon which amortization in this case is based, and the actual production, taking the three primary products of the company as the basis of comparison.

In 1922, the pig-iron estimate is 946,779 tons short of the actual production. In 1923, the pig-iron estimate is 2,579,577 tons short of actual production.

In 1922, the steel-ingot estimate is 843,560 tons short of actual production, and in 1923 the steel-ingot estimate is 3,330,552 tons short of actual production.

In 1922, the estimated production of billets, blooms and slabs, is 2,998,949 tons short of actual production, and in 1923 the estimated production of billets, blooms and slabs is 4,842,065 tons short of actual production.

On January 24, 1924, the matter of the difference between the estimates, upon which amortization in this matter was based, and the actual production was brought up in a conference, the report of which is signed by J. C. Keenan, assistant chief of nonmetals section, J. C. Hering, conferee, H. A. Whitney, engineer, and C. B. Newbury, engineer.

Let me say at this point that the H. A. Whitney mentioned here as one of those signing this conference report is the engineer who determined the amortization which is being made the subject of attack in this proceeding. It states in the conference report which is dated January 24, 1924:

> The purpose of the hearing was to determine the advisability of opening up the amortization case of the United States Steel Corporation for the purpose of reducing the amortization allowed the taxpayer.
>
> The conferees agreed that if the case were opened the probabilities were that any reduction in amortization due to increased production in 1923, would probably be offset by a rebuttal of the taxpayer to the effect that the bureau disregarded, in its calculations for value in use, the increased production of the pre-war year 1916, which, if included, would materially have increased the amortization allowance.

Without going into details——

The CHAIRMAN. Let me interrupt you there. I do not get that clearly in my mind. The taxpayer had no right to claim for 1916?

Mr. MANSON. He did not, but the point, as I understand it, is this: That in determining this average margin which, in the case of pig iron, was 131.3 per cent, between the average production during the pre-war period and the average capacity during the pre-war period, the year 1916 was not included in the years averaged. If

the year 1916 had been included in the years averaged, it would have reduced that margin of difference between that pre-war average production and the pre-war average capacity, and that inasmuch as that margin is the margin which is added in the postwar years to the estimated production, it would make some difference in the amount which they estimated as the necessary capacity in pre-war years. In my opinion, it would not make any such material difference as to offset the difference in these figures. I have not figured that out exactly, for the reason that, in my opinion, it is immaterial.

It is manifest from an examination of any of the charts of production, which will be made a part of this record, and which were shown to the committee yesterday, that the year of 1916 is the most abnormal year in the entire history of the steel industry. Its production actually exceeded the rated capacity, for reasons I stated yesterday. There is no reason on earth why the year 1916 should be included in any calculation as the basis for determining the normal relationship between production and capacity.

There are, I might say, three years out of the last fourteen which are manifestly abnormal years—the year 1914, the year 1916, and the year 1921. In determining the average relationship between production and capacity, those three years should be eliminated.

I would call the committee's attention to Table 2, shown on this large sheet. That table shows the factors used and the methods by which the bureau engineers arrived at the 80 per cent amortization.

If we are to substitute the actual production for the estimated production, the results are shown in Table 3. That table shows that instead of having 80 per cent value in use we would have 88 per cent value in use. The difference of 8 per cent there makes a difference of 40 per cent in the amount of amortization allowed, because the amortization allowance is 20 per cent, and 8 per cent is 40 per cent of 20 per cent.

I can see no reason for eliminating the years 1919 and 1920, in determining the average post-war production.

A reference to Table 1 will show that in the case of pig iron—that is the large table underneath the one you are looking at, Senator—that in the case of pig iron, shown in the first two columns there on that big table, the production of 1919 and 1920 is about the same as in the pre-war years 1912, 1913, and 1915, and below the post-war year of 1923.

The production of steel ingots in 1919 and 1920 exceeded any year prior to 1916, but was below the production of 1923.

The production of billets, blooms, and slabs in 1920 is about the same as in 1912, 1913, and 1915, and less than in 1922 and 1923. The 1921 production of billets, blooms, and slabs exceeded any pre-war year, but did not equal 1923.

The production of rolled and finished steel in 1920 was less than in 1912 and 1913, very much less than in 1923, and slightly over 1915. In 1921, the production of finished steel exceeded that of any pre-war year, but was less than 1923.

It thus appears that the engineers excluded these two normal years, but included 1921, the only really abnormal year of the whole post-war period.

The CHAIRMAN. Abnormal with respect to low production?

Mr. MANSON. Low production; yes—the only really abnormal year of the whole post-war period, for the purpose of determining normal post-war production.

The reason for adopting the capacity of 1921 instead of the capacity of 1919—I am now talking about capacity—as the basis for determining the excess of capacity due to war construction is not apparent. It is true that some war construction may not have been finished and in operation so as to enter into 1919 capacity, but during 1919, $41,521,794 was spent for capital manufacturing plant improvements, and an additional $37,677,329 was spent in 1920, and $36,868,523 in 1921 for this purpose.

There appears to be no justification for adopting 1921, the capacity of which had been increased by the expenditure of $79,199,123 in 1919 and 1920, as reflecting the capacity due to war construction. We submit that it is far more reasonable to assume that the war facilities which do not enter into 1919 capacity are offset by the expenditures made during 1919 for facilities which did enter into the capacity of that year. If we are to take the capacity of 1919 and the average of the actual production for the years 1919 to 1923, inclusive, as the basis for determining value in use, according to this formula, we find the value in use and the amortization due to loss of value in use to be as follows:

Pig iron, value in use, 94.9 per cent; amortization 5.1 per cent.

Steel ingots, 94.7 per cent; amortization, 5.3 per cent.

Rolled and finished steel, value in use, 99.6 per cent; amortization, 0.4 per cent.

For reasons already explained, value in use should be determined by the production of the peak year in the period, plus the margin required to overcome the irregularity of production from month to month. In other words, we maintain that the required capacity in the United States Steel Corporation, as shown by the production figures, and as shown by the fixed policy of this company, that policy being that they shall be prepared to meet the peak years of production, necessitates the use of the production of 1923, and not the average of 1923 with the other years, and that when you add to the 1923 production the margin of difference between production and capacity required to overcome the irregularity of production from month to month, you find that all of the facilities of the United States Steel Corporation were in 100 per cent use. In other words, the margin which will be left between the 1923 production and the 1919 capacity will be less than the margin that is left between production and capacity of any pre-war year.

Those figures are shown in Table 7, on the large sheet.

We, therefore, take the position that, whether you measure the value in use of this property according to this formula, which ignores the comparative useful life of the different elements of property to which it is applied, which also ignores the efficiency of the property to which it is applied, which leaves out of consideration the salvage value of the property to which it is applied, or whether you determine amortization by taking into consideration the actual use which was made of the property at the time amortization is claimed, as was done by the first engineers who investigated this claim—that by either method, when you use proper factors, when you apply proper figures, you arrive at 100 per cent use.

I next desire to discuss the railroad property which is included in this amortization claim.

Included in the claim I have found allowances for the loss of use of railroad facilities, amounting to $2,477,233.57. That does not include the allowances made for differences between war costs and the cost of reproduction after the war.

As to the allowance on railroad property, we urge the same objections that we have urged to all of the other properties, with the additional objection, that the railroad property is not subject to amortization at all.

The CHAIRMAN. Can you name the railroads?

Mr. MANSON. Yes; we have those here.

The CHAIRMAN. Were they common carriers?

Mr. MANSON. All of them.

The CHAIRMAN. In other words, common carriers under any other ownership were not allowed amortization?

Mr. MANSON. Common carriers by land.

The CHAIRMAN. Yes.

Mr. HARTSON. Mr Chairman, the regulations of the department authorize the amortization of the cost of transportation facilities when they are a part of plant production.

The CHAIRMAN. Even though they are common carriers by land?

Mr. HARTSON. Well, the regulations do not mention whether they are common carriers or not. It makes no mention of that, but takes the position, in broad general terms, that if the transportation facility is a part of plant production, such transportation facility may be amortized.

The CHAIRMAN. Is that fair to other railroads that are not part of a manufacturing plant?

Mr. HARTSON. Well, I do not want to pass upon its fairness, Mr. Chairman. That is my understanding of what the regulations say.

The CHAIRMAN. Is that your understanding of what the law says, too?

Mr. HARTSON. The law mentions, in connection with amortization, the amortization of the cost of the facilities used in the production of articles contributing to the prosecution of the war. There has always been a great deal of difference of opinion in the bureau as to whether production included transportation. Economically, we are told that it does, and the position of the bureau in denying the right to amortize transportation facilities, as such, when separated from a manufacturing plant or business, has been attacked most strenuously by the railroads of the country, of course. That was to be expected. The bureau took the position that the law further specifically mentioned transportation by steamship, or it specifically says the cost of ships used in the transportation of men or articles contributing to the prosecution of the war. The bureau in construing that language took the view that Congress intended specifically to provide for the transportation by water, and intentionally declined to permit the same allowance for amortization to transportation by railroads or on land. That has always been the bureau's position.

The CHAIRMAN. Assuming that you know the relationship between the Detroit, Cleveland & Ironton Railroad Co., and the Ford

Motor Co., for example, would you consider that the Detroit, Cleveland & Ironton Railroad is subject to amortization because it handled the product of the Ford Motor Co.?

Mr. HARTSON. Senator, I really do not know the condition of that railroad as associated with the Ford Motor Co. My understanding is—and the Senator will correct me if I am wrong—that the railroad was a common carrier, and entirely disassociated from the Ford plant, and engaged in the transportation of passengers and freight over a period of years, up to its acquisition by Mr. Ford, and that Mr. Ford, after buying the railroad, used it in connection with his plant, but it also continued to do, in addition to his business, such public business as it had done in the past. Is that a fair statement of the condition there?

The CHAIRMAN. I think that is a fair statement. But, as I understand Mr. Manson, these other companies allied with the United States Steel Corporation, were also common carriers to the extent of carrying passengers and other traffic besides the products of the Steel Corporation.

Mr. MANSON. And their operation was taken over by the Railroad Administration during the war.

Mr. HARTSON. That makes a parallel situation, then, does it not, to this?

The CHAIRMAN. That is what I thought, that it did make a parallel situation, and that is the reason I wanted to get it in the record here, so that we could get it clearly in our minds, as to the kind of a common carrier or the kind of transportation that was amortized in the case of the Steel Corporation, and possibly not amortized the case of other corporations.

Mr. HARTSON. I want to say this, and I think it would be inadvisable for me to express a view on the correctness of the principle, that this question has been presented to the solicitor's office, the general railroad demand for the amortization of the cost of the facilities that they put in during the war. Of course, most of them were under Government ownership and control, and were thereby precluded from making any claim for amortization, but a few were not under Government control, and those railroads that were not under Government control, as I mentioned a moment ago, wanted to be given the benefit of the amortization allowance. It was denied them by the bureau, and the solicitor's office did pass upon that, and it was on the basis of this ruling or law opinion, the number of which has slipped my mind——

Mr. MANSON. I will read that opinon.

Mr. HARTSON. It is 1074, I think, but that is subject to verification. The solicitor's office, though, Mr. Chairman, has never passed upon the combination of the two—the combination of the plant facility for transportation and the common carrier engaged in transporting public business, passengers and freight, for hire. You have a mixed condition there, and what was done in this case, as Mr. Manson is no doubt coming to, is that they permitted the Steel Corporation to amortize the cost of the war facilities used on the railroads of the Steel Corporation in such a proportion as the steel company's business on the road bore to the total business of the railroad. I never have passed on that, and I do not believe that I

could express an opinion at this time. As to whether that is proper or not, I am not prepared to say; but I think I have elaborated on the whole condition here, and the situation in regard to what has been done relative to transportation companies and the amortization of their facilities.

The CHAIRMAN. It might be said, I think, that all transportation contributed to the prosecution of the war during the war period; is not that true?

Mr. MANSON. That is certainly true in moving soldiers.

Mr. HARTSON. Oh, there is no question about it, Senator, and the point that has always been made in the bureau is that in determining what "production" means as used in the law, transportation and the assembling of all of the component parts of a completed article are as much a part of the production as the actual fabrication of the article. They do not stop there, but they say that, added to the association and fabrication of the article must be placed the transportation of the completed article to the consumer, and that is all production and it was all production during the war. It was production right up to the time that the facility, whatever it was, was delivered to the front line trench, and yet we can all recognize that a large share of that was pure transportation, some of it by water and some of it by land; but the bureau did not recognize it, because the law was rather peculiarly drawn, so our office thought it had in mind the amortization of the cost of such facilities as were used in transportation, so far as the sea or water went, by reason of the use of the word "ships" in the act, and that that was an expression of a definite intention to exclude transportation by land.

The CHAIRMAN. All right, Mr. Manson.

Mr. MANSON. Referring to the Senator's question, I will now read the names of the roads to which amortization was allowed, and the total allowance of amortization made to those roads. As I stated before, it was the amortization due to loss of use.

Elgin, Joliet & Eastern Ry. Co	$94,369.90
Chicago, Lake Shore & Eastern Ry. Co	105,535.24
Bessemer & Lake Erie Ry. Co	221,875.38
Duluth, Missabe & Northern Ry. Co	1,034,370.44
Birmingham, Southern Ry	11,181.30
Elwood, Anderson & Lapelle R. R. Co	1,572.09
Union Railroad Co	886,763.83
Monongahela Southern R. R. Co	3,438.82
St. Clair Terminal R. R. Co	11,981.63
Youngstown & Northern R. R. Co	53,422.26
Mercer Valley R. R. Co	3,697.67
Pittsburgh & Conneaut Dock Co	80,862.79
McKeesport Connecting R. R. Co	2,376.54
The Lake Terminal R. R. Co	16,053.97
Donora Southern R. R. Co	82,076.67
Newburgh & South Shore R. R. Co	179,606.87

The CHAIRMAN. I would like to ask you there if you know whether the Steel Corporation owned all of the stock of these railroads or not?

Mr. MANSON. To the best of my information. I find that some of these are direct subsidiaries of the United States Steel Corporation, and some of them are subsidiaries of subsidiary companies of the United States Steel Corporation. The direct subsidiaries owned

by the United States Steel Corporation—and what I mean by that is that in the following four railroads the United States Steel Corporation owns all the stock: Elgin, Joliet & Eastern Railway, the Chicago, Lakeshore & Eastern Railroad Co., the Duluth, Missabe & Northern Railway Co., and the Bessemer & Lake Erie Railroad Co. The stock of the other companies is owned by subsidiary companies of the United States Steel Corporation.

The CHAIRMAN. For example, the Carnegie Steel Co., or some like company?

Mr. MANSON. Yes. The Carnegie Steel Co. owns the stock of the Union Railroad Co.

The CHAIRMAN. But you can trace back, as I understand it, the fact that the ownership of these railroads is in the Steel Corporation or one of its subsidiaries?

Mr. MANSON. That is the fact.

I wish to call attention to this fact, that each of these companies is an independent corporation, that is, each of the railway companies. None of them produced any steel, or any other article which contributed to the prosecution of the war. They all furnished transportation for articles which did contribute to the prosecution of the war.

The United States Steel Corporation itself produced nothing which contributed to the prosecution of the war. We call this the claim of the United States Steel Corporation for lack of a better name. This claim, however, is the aggregate of the claims of the various subsidiaries of the United States Steel Corporation, which did produce articles contributing to the prosecution of the war. In other words, the United States Steel Corporation owns no tangible property, so far as I have been able to ascertain, unless it is office furniture. The United States Steel Corporation owns the stock of these several companies whose claims are combined in this case for amortization.

This is not a case, where the Carnegie Steel Co. owned some railroad property as one of its facilities in connection with the steel business. This is a case where the stock of a railroad company that is engaged in nothing else except the railroad business happens to be owned by a steel company, which produces steel, or by the United States Steel Corporation, which produces nothing.

I submit that there is nothing in this law which gives to any corporation any rights because of the nature of the ownership of its stock except the right to file a consolidated schedule.

The CHAIRMAN. In other words, if the United States Steel Corporation owned the Pennsylvania Railroad, instead of its being owned by 775,000 individual stockholders, under the theory adopted by the bureau, it could claim amortization?

Mr. MANSON. Absolutely. I take the position further that if this law could be so construed as to confer rights upon a railroad company whose stock is owned by the United States Steel Corporation, or whose stock is owned by any subsidiary of the United States Steel Corporation, which are not conferred upon any other railroad companies, the law would be unconstitutional.

The CHAIRMAN. In other words, if this record were a public affair, and we recognized it as public business, and it was before the

public, every other railroad in the country would claim amortization under the rulings in this case?

Mr. MANSON. Yes. Then, either one of two situations is true. Either all the railroads in the United States are entitled to amortization under this law, or none of the railroads which are controlled by the United States Steel Corporation are entitled to amortization.

I believe there is some justification under article 183 of the regulations, for the allowance made in this case, but my attack here is directed as much at this regulation at it is at the action of the engineers.

Although this regulation does not specifically cover this situation, I will read that portion of the regulation which does refer to this class of amortization allowance.

Reading from article 183, regulations 62:

> It is not sufficient, to entitle the taxpayer to the allowance, that the nature of his business is such as to contribute to the production of articles. For example, a taxpayer, such as a railroad, whose business activities are confined to transportation (other than water transportation) is not entitled to the allowance. A taxpayer, the nature of whose business is the actual production of articles, however, may claim the allowance with respect to the cost of all buildings, machinery, equipment, or other facilities which were constructed for use or which were used in connection with the production of such articles, both in the acquisition and transportation of raw materials, the actual process of manufacture or other conversion, and the transportation and marketing of the finished product.

In my opinion, that regulation should not be construed to cover a case where the transportation facilities are owned by an independent corporation, whose stock is owned by the producer of an article contributing to the prosecution of the war. This regulation clearly applies to a case where, for instance, the Carnegie Steel Co.——

The CHAIRMAN. Why not use, as an example, a company which is not a subsidiary of the United States Steel Corporation?

Mr. MANSON. I will do that.

The CHAIRMAN. Let me state what I think is the situation here.

Mr. MANSON. Yes.

The CHAIRMAN. Assume, for instance, that the Bethlehem Steel Co.——

Mr. MANSON. Yes.

The CHAIRMAN (continuing). Which is not a holding company, owns a subsidiary railroad company which serves a particular plant or owns a mine which is not incorporated under a mining name. That would be a different case than where the case is simply that of a holding company, as in the case of the Steel Corporation.

Mr. MANSON. Yes; but even then, I do not believe it was entitled to amortization. It the Bethlehem Steel Co., itself owned railroad facilities, or facilities which, if owned by a railroad company, would be classed as railroad facilities; in other words, if it owned track right of way, cars, locomotives, and the other elements which go to make up a railroad, there is no question in my mind but that that property would be subject to amortization.

The CHAIRMAN. That is what I am trying to get at.

Mr. MANSON. Yes; there are including this claim items of railroad equipment, to which we take no exception on this ground. There are many locomotives; there are many cars. We have not objected

to the amortization of these items upon the ground that they are not subject to amortization. We have objected to the formula that has been applied to them, but we do not object to the allowance of amortization upon railway property which is owned and operated directly by a company which produces steel.

The ground of our objection to the allowance of amortization upon property of independent corporations, whose stock is owned by a company which produces steel, is that there is nothing in the law which gives to a corporation any rights not enjoyed by other railroad corporations because of the hands into which its stock happens to fall.

As to the general proposition as to whether railway property is subject to amortization, permit me to say that both the Bureau—that is, the solicitor—and the courts have held that it is not, and in so holding have predicated their decisions upon the construction of the act itself and not upon the economic questions involved in the determination of whether or not they are contributing something to the prosecution of the war.

Inasmuch as the court decisions follow the opinion of the solicitor, I desire to read this opinion into the record. It is not very long, and I will then state the facts upon which the court passed, without reading its opinion in full.

This is L. O. I take it that that is law opinion?

Mr. HARTSON. That is correct, Mr. Manson. That is law opinion.

Mr. MANSON. L. O. 1074. I am unable to tell what the date is. Perhaps you can help me on it. I do not know what these symbols mean.

Mr. HARTSON. It has been out for a number of years.

Mr. MANSON. The date of this opinion does not appear on the opinion, but it is published in Cumulative Bulletin No. 5, July–December, 1921. I take it that this bulletin contains the rulings, opinions, etc., promulgated during that period?

Mr. HARTSON. That is right.

Mr. MANSON. The opinion is as follows:

There has been presented by the M Railroad Co. a claim for abatement of 2¼*x* dollars, corporation income tax for 1918, based on two items. The major portion of the claim and the one to which attention is herein directed, relates to an allowance for amortization of certain additional property acquired and built by the railroad company to meet the unusual demands arising out of the war. The facts are these:

The M railroad at the breaking out of the war was doing a normal business for a road of its size. In 1915 certain manufacturers constructed various plants in the vicinity of the road. It is stated that the only outlet for the production of these plants was the M railroad, and, in order to enable the road adequately to handle the output of such plants, as well as to transport thousands of workers to and from their work, it was necessary for it to provide additional facilities. From the year 1915 the railroad's expenditures for additional facilities, consisting of tracks, stations, additions to stations, locomotives, and passenger cars steadily increased, and in 1917 they amounted to 1½x dollar, which was increased in 1918 by an expenditure of 3½x dollars. It was found impossible to obtain the services of the O company's repair shops, and, by reason of the refusal of that company to make such repairs, it became necessary for the railroad to erect certain buildings and plants.

The taxpayer calls attention to the fact that these facilities, necessitating this additional investment, were absolutely necessary in the prosecution of the war, and that they were constructed and acquired solely for war purposes. As a consequence the road contends that it is entitled to a large de-

duction based on an amortization allowance on these additional facilities. The propriety of this allowance is now before the solicitor for review.

Every allowance to a corporation by way of amortization is based on section 234(a)8 of the revenue act of 1918. Under the provisions of this section amortization allowance can be made only in the case of buildings, machinery, equipment, or other facilities constructed, erected, installed, or acquired on or after April 6, 1917, "for the production of articles contributing to the prosecution of the present war and in the case of vessels constructed or acquired on or after such date for the transportation of articles or men contributing to the prosecution of the present war." The question involved is whether or not the facilities acquired, constructed, and erected by the railroad company in the instant case are such as to bring them within the provision quoted above.

It is recognized by Congress that the phraseology used in the statute in regard to the amortization allowance on buildings, machinery, equipment, and war facilities is not sufficiently broad to admit of an allowance of facilities used for transportation. The act as originally passed by the House (H. R. 12863), in respect to amortization (secs. 214(a)9, 234(a)8), did not contain the language in respect to ships now found in the statute but provided for the allowance in the following language:

"In the case of buildings, machinery, equipment, or other facilities constructed, erected, installed, or acquired on or after April 6, 1917, for the production of articles contributing to the prosecution of the war there may be allowed a reasonable deduction for the amortization or such part of the cost of such facilities as has been borne by the taxpayer * * *."

In the report of the Senate Committee on Finance dated December 6, 1918, the following remarks are made in respect to amortization:

"In the paragraph relating to amortization allowance (secs. 214 (a), 234(a)8), was feared that the language was not broad enough to include vessels devoted to war purposes, and provision has therefore been made for amortization allowance in the case of vessels constructed or acquired on or after April 6, 1917, for the transportation of articles or men contributing to the prosecution of the present war."

The amendment referred to in the Senate committee report resulted in the existing provisions of the statute.

Therefore, Congress recognized that the language used in the first part of the section was not sufficient to embrace transportation facilities and advisedly broadened the section only in so far as to include ships.

While the additional facilities purchased by the M railroad company enabled it to meet the extraordinary demands occasioned by the war, they are not such facilities as may be said to have been used for the production of munitions manufactured by the companies whose plants were built in the vicinity of its right of way. Transportation can not be regarded as a part of production and this is evidently the construction which Congress intended should be put upon the statute.

It is held that where railroads constructed additional track, lines, sidings, stations, roundhouses, and repair shops, and purchased additional locomotives and cars in order to meet the demands on such roads occasioned by the war, no allowance may be made for amortization, as those facilities do not fall within the classes enumerated in section 234(a)8 of the revenue act of 1918. The entire allowance for amortization claimed by the M railroad company should therefore be denied.

In the case of the Hampton & Langley Field Railway Co. *v.* Nool Collector (300 Fed. 438), decided June 13, 1924, the United States District Court for the Eastern District of Virginia, decided that a railroad company was not entitled to amortization. The reasoning of the court follows the reasoning of the solicitor in the opinion that I have just read.

The facts in the case before the court were as follows:

The facts show that the plaintiff, hereinafter spoken of as the railway, is a public service corporation, organized under the laws of Virginia in February, 1917. Between the middle and the latter part of 1917 it built approximately three and one-fourth miles of standard guage railroad, starting at

Hampton Va., intersecting the Chesapeake & Ohio Railway at the edge of the town, and running to the outer boundaries of Langley Field Aviation station, belonging to the United States. At this terminus there was a physical connection with the government tracks running into the aviation field. At its inception the railway used rolling stock leased from the Newport News & Hampton Railway, Gas & Electric Co., but at the peak of war activities the latter company, finding itself in need of all its equipment, withdrew its rolling stock, necessitating the purchase by the railway for its own account of such equipment as its business demanded. Accordingly it purchased, after April 8, 1917, two electric passenger cars and one electric locomotive, paying in the aggregate therefor the sum of $34,400. The passenger cars were used in hauling passengers from Hampton to Langley Field, and the locomotive in drawing freight cars received from the C. & O. Railway from the point of physical connection with that company's line to the outskirts of the aviation field, where the cars were delivered to the Government authorities and drawn by means of a steam locomotive, operated by the United States Army, to the desired points in the aviation field.

As I have said before, the court held that this company was not entitled to amortization under this law, and based its decision upon identically the same grounds as are stated in the opinion of the Solicitor.

Those are about all the objections that I have to this claim.

The CHAIRMAN. Mr. Hartson, do you want to proceed now?

Mr. HARTSON. Yes Senator. I think we are prepared to go ahead.

In the light of the statements contained in the public press last night, I should like the record to show, and I shall call Mr. Greenidge to state the present status of this case, that the United States Steel Corporation amortization claim and some of the criticisms that have been directed to the allowance made by the amortization section, have been the subject of sharp disagreement in the bureau; that the matter is not settled, and was not settled, before the agents of this committee went through the files; that some representatives of the bureau assigned to the unit had expressed dissenting views on it, in connection with some details of the allowance, and there was in process of preparation, for submission to the Solicitor for some definite ruling on various questions that were involved in its adjustments, the amortization claim, with other features of the case.

The CHAIRMAN. In other words, I understand you to say that we are wrong in assuming that the amortization claim had been decided upon?

Mr. HARTSON. You understand me correctly, Senator. It is, however true—and Mr. Manson has not misstated it at all—that the amortization section of the Income Tax Unit, which is now abolished, approved the engineer's report in the case, which was the customary procedure to be followed when an amorization allowance was finally adjusted. That was done in this case, like it was done in all of the cases.

Now, before that adjustment by the amortization section was carried into any consummated action at all, there was this criticism of that adjustment by engineers acting under Mr. Greenidge, and the case, at the time it was investigated by your agents, was in process of preparation for transmittal to the solicitor for further advice on some of the troublesome things that have been suggested here to the committee.

I should like to have Mr. Greenidge explain that, together with the present status of the case, because my statement is predicated on what is told me. I do not know personally.

The CHAIRMAN. I would like to get your understanding of it first.

Mr. HARTSON. Yes, sir.

The CHAIRMAN. You intend the committee to understand that had we not gotten into this case, the conclusions reached by the bureau may have been carried out or may not have been carried out?

Mr. HARTSON. That is the definite understanding I should like the Senator to have.

The CHAIRMAN. In view of that, I do not believe, unless Mr. Greenidge wants to offer some explanation, it is necessary to hear from him.

Mr. GREENIDGE. No, sir; I do not think I want to object too it in any way, or amplify it.

Mr. MANSON. I wish to call attention at this point to the fact that, as I have stated, this case was the subject of a conference in January of this year, and at this conference it was determined not to reopen this question. I do not mean by that to imply that this case could not have been taken to the solicitor's office, but I do mean to say that, under the usual course of procedure, as it has been repeatedly stated in these hearings, a case is not taken to the solicitor's office unless there is some disagreement between the taxpayer and the engineers who determined the amortization; that is, it is not taken there in the usual course, or unless it involves a refund exceeding $50,000. I do not know whether this case involves a refund at all or not.

Mr. PARKER. Very likely.

Mr. HARTSON. Mr. Manson, the jurisdictional limit of the solicitor in reviewing these claims is not confined to refund claims of $50,000 or over; it extends not only to refund claims, but claims for abatement and certificates of overassessment, where the assessment has already been made. Where it is proposed to wipe out $50,000 or more of that assessment, the claim and the papers are reviewed by an agent of the solicitor.

The CHAIRMAN. I understood Mr. Manson to say that that was not the usual practice, however, unless there was disagreement between the taxpayer and the bureau. Is that correct?

Mr. HARTSON. This case, if I am correctly informed—and I want this borne out by the statements of those who have personal knowledge of it—was not to come over to the solicitor's office as being a case which would automatically come over there by reason of some jurisdiction that the solicitor had in reviewing cases involving refunds of abatements or certificates of overassessment in cases involving over $50,000, but was to be sent to the solicitor's office for a definite expression of opinion about some of the questions that were presented here.

Mr. MANSON. I would like to ask Mr. Greenidge a question at this point.

Mr. Greenidge, do you know of anything in the record in this case which was supplied to Mr. Parker when he asked for the record in the case of the United States Steel Corporation, and presumably for the whole record, which in any way indicated that the matter of amortization was still open for further consideration?

Mr. GREENIDGE. No, sir; I do not.

Mr. DAVIS. In that connection, Mr. Greenidge, the memorandum dated January 24, 1924, which Mr. Manson has read, states that the purpose of the hearing was to determine the advisability of open-

ing up the amortization claims, and that the engineering division and the head of that division decided not to open it up, for the reasons therein stated. Would not that mean that the amortization question had been disposed of by the engineering division?

Mr. GREENIDGE. I did not hear the first part of your question.

Mr. DAVIS. I will restate it.

The CHAIRMAN. Let the reporter read it.

(The reporter read the question as above recorded.)

Mr. GREENIDGE. I do not know that the memorandum referred to contains the statement that the head of the engineering division had decided to reopen the case. If it does contain such a statement, it is not within my knowledge.

Mr. DAVIS. I am reading from the report here.

Mr. HARTSON. Is it a fact, Mr. Greenidge?

The CHAIRMAN. Let us see about this. Is it a fact? Never mind what the memorandum says. Is it a fact, as contained in the question asked by Mr. Davis?

Mr. GREENIDGE. That I intended to have it reopened?

Mr. DAVIS. That you intended not to have it reopened?

Mr. GREENIDGE. No; I intended to submit it to the solicitor. In fact, we have been in the process of doing that, I should say, for upward of three months.

The CHAIRMAN. Is there anything in that particular report indicating that?

Mr. GREENIDGE. I do not know what the report contains, Senator.

Mr. MANSON. Is there anything in the record?

The CHAIRMAN. Just a minute. Let us have this point decided. Let Mr. Greenidge see the report, and then have him tell the committee whether there is anything in that report which indicates that it might be opened or referred to the solicitor.

(Mr. Davis thereupon handed the report in question to Mr. Greenidge.)

Mr. GREENIDGE (after examination of the report). Yes; that report is a correct one, but it contains no mention of the subsequent conferences held in my office relative to the use of value in use and postwar replacement cost as applied against the original cost of a facility contributing to the prosecution of the war.

Mr. HARTSON. Now, Mr. Greenidge, what is the date of the memorandum that you have just read?

Mr. GREENIDGE. January 24, 1924.

Mr. HARTSON. Do the files include, so far as your knowledge goes, any further memoranda indicating what was to be done with the amortization claim of this company?

Mr. GREENIDGE. Of my own knowledge, I do not know that they do.

Mr. HARTSON. Were there ony conferences held subsequent to that memorandum with reference to the amortization.

Mr. GREENIDGE. Yes.

Mr. HARTSON. Tell the Senator, if you will, the occasion for calling those conferences, what the result of those conferences were, and who were present?

The CHAIRMAN. Before you do that, I would like to know if there is any record of those conferences to confirm any statement that Mr. Greenidge might make?

Mr. GREENIDGE. There is a record of the last important one.

Mr. MANSON. When was that conference held?

Mr. GREENIDGE. I think in August of this year. I can get you the exact date.

Mr. MANSON. I would like to know that date, and I would also like to know whether a copy of that report was supplied to Mr. Parker with the files in this case, and if not, why not?

Mr. GREENIDGE. It does not apply to this case, Mr. Manson. It applies to the general question of amortization which Mr. Hartson has just asked about.

Mr. MANSON. Oh, I see.

Mr. HARTSON. My question was directed to amortization, so far as this case went. So this last conference that you have mentioned, in reply to my last question, was a general conference on amortization, was it not?

Mr. GREENIDGE. Yes. The point came up in connection with another case, however.

Mr. HARTSON. Yes; but did that general conference, occasioned by a question arising in another case, have any bearing, or did some of the adjustments have a bearing on the amortization in this case?

Mr. GREENIDGE. Yes; they have a direct bearing.

Mr. HARTSON. A direct bearing?

Mr. GREENIDGE. Yes.

The CHAIRMAN. But the conference report did not mention the Steel Corporation facilities; nor were they mentioned in the conference itself; is that true?

Mr. GREENIDGE. Not that I recall, Senator.

The CHAIRMAN. Then, I do not know that that particular line of testimony is interesting.

Mr. HARTSON. Well, Senator——

The CHAIRMAN. I want to say this, that the committee is in no way anxious or desirous of securing any credit for the opening of this case, to the detriment of the bureau. We are not here to get credit for any accomplishments, if there are any accomplishments through the bureau, without any inspiration coming from this committee, so I do not believe that this line of testimony is at all relevant, so long as we get results.

Mr. MANSON. I would like to ask this: Were not the principles that were applied to the determination of amortization in this case applied to many other amortization claims?

Mr. GREENIDGE. In a very small percentage of the cases handled in the amortization section.

Mr. MANSON. Can you furnish us a list of the cases which have been closed in which this method was applied?

Mr. GREENIDGE. Such a list could be furnished. My information is that the percentage is less than four.

Mr. MANSON. Have you such a list now in existence?

Mr. GREENIDGE. No; we have not.

Mr. MANSON. What do you expect to use as the basis for determination of the cases that you would reopen if you changed your views, or if you rejected, rather, the basis used in this case?

Mr. GREENIDGE. Well, such a list would have to be prepared, of course.

Mr. MANSON. Were not the same principles, or substantially the same principles, applied to the settlement of the Berwind-White case?

Mr. GREENIDGE. I think not, but I would want an opportunity to correct that answer if it is wrong.

The CHAIRMAN. This thought occurs to me, that reference has been made to the fact that this conference held in August, 1924, was a general conference, but was inspired by the amortization claim or conditions of the claim with respect to another case. Can you tell us what particular case that is?

Mr. GREENIDGE. I shall be able to tell you to-morrow, from the files.

The CHAIRMAN. You can not remember it now?

Mr. GREENIDGE. No; I can not.

Mr. HARTSON. Is there anybody here who knows?

Mr. MANSON. Will you furnish the report of that conference also?

Mr. GREENIDGE. It was one of a hundred cases that we were hearing.

The CHAIRMAN. I understand that the inspiration for this conference, which you stated dealt with the general subject of amortization, was another specific case, and if there is anybody here who can answer Mr. Hartson's question as to the name of that particular case, I would like to have him do so.

Mr. DAVIS. Mr. Tandrow, do you know the name of that other case that Mr. Greenidge has spoken of?

Mr. TANDROW. No; I do not, Mr. Davis. I think, at the time those cases were under consideration, I was in the field. I am sure that I was.

The CHAIRMAN. It is apparent that no one here knows that particular case, so we will let you give us the name of that case at another time.

Mr. GREENIDGE. Yes. I should like to correct the Senator's impression, however, that this case to which we have just been referring was the cause of a general discussion of this particular phase of amortization. If you have that impression, I should like to correct it by saying that the first general conference on this particular phase of amortization was held several months prior to the consideration of the particular case of which we will give you the name to-morrow.

Mr. MANSON. What were the particular questions that you intended to submit to the solicitor?

Mr. GREENIDGE. Whether or not the value in use should be applied to postwar replacement cost and the result applied to original cost, or whether the value in use should be applied directly to original cost.

Mr. MANSON. The question whether value in use could be determined according to the formula that was used in this case was not one of the questions that were to be submitted to the solicitor, as I understand it.

Mr. GREENIDGE. Yes.

Mr. MANSON. Am I right about that?

Mr. GREENIDGE. No. The use of value in use applied to postwar replacement cost, and again to original cost, is one of the points at issue in this case.

Mr. MANSON. Well, we have not raised that question. In other words, we have not questioned your practice in this case of applying value in use to postwar replacement cost.

The CHAIRMAN. As I understand this case, it does not concern the particular point made by Mr. Greenidge just now, to apply to the question of facilities in use with respect to cost.

Mr. MANSON. Yes. In other words, the main question we raised in this case is your method of determining value in use, and not the factor to which that you applied value in use.

Mr. GREENIDGE. Then, I misunderstood your entire statement.

The CHAIRMAN. Do you mean to say that you have been here all of this time and have misunderstood what he said?

Mr. GREENIDGE. Well, I understand the point that he was raising, but I understood he was also raising this other point to which I have referred. I fully understood what he was raising, because I read his testimony carefully last night.

Mr. MANSON. I think I stated specifically in the opening that we did not question the propriety of granting amortization to the extent of the difference between the war cost and the postwar cost of reproduction.

The CHAIRMAN. That is perfectly plain. That is how I have understood the case from the beginning. You will get us a copy of this conference report?

Mr. GREENIDGE. Yes.

The CHAIRMAN. Bearing on those cases generally.

Mr. GREENIDGE. Yes.

The CHAIRMAN. In this report, will it specify any of the names of the cases that you were considering at the time?

Mr. GREENIDGE. Yes; the case to which reference has been made, Senator, is one of a hundred cases which we were hearing as an experiment. It contains very little detail, as I recall it, but it may contain more than I recollect. Being one of a hundred, it is quite unlikely that I could remember the details.

The CHAIRMAN. In this conference that you have referred to or in any other conference, did you plan to refer to the solicitor the question of amortization in connection with railroads belonging to the United States Steel Corporation?

Mr. GREENIDGE. No, sir.

Mr. MANSON. Well, it seems to me that the questions on which we based all of our objections in this case were not the questions which Mr. Greenidge, the head of the engineering section, intended to refer to the solicitor.

The CHAIRMAN. I think that is a correct conclusion. That is the conclusion that I would reach, anyway.

Mr. HARTSON. That is all, Mr. Greenidge, so far as I am concerned.

Mr. MANSON. I have referred to a lot of statements here, and I have made a good many statements myself, based upon facts in the record. I would like to put into the record the summary and basic data upon which my statements were made. I do not care to go into any oral testimony.

The CHAIRMAN. I think we might defer that until we see what Mr. Hartson has to say in his remarks to some of your statements.

Mr. HARTSON. Mr. Hering, will you take the stand, please?

TESTIMONY OF MR. JAMES C. HERING, BUREAU OF INTERNAL REVENUE

Mr. HARTSON. Mr. Hering, your name is——

Mr. HERING. James C. Hering.

Mr. HARTSON. And you are in the Bureau of Internal Revenue?

Mr. HERING. Yes, sir.

Mr. HARTSON. Serving in what capacity?

Mr. HERING. At present as a senior reviewer in the Review Section of the Consolidated Returns Audit Division.

Mr. HARTSON. Mr. Manson read your name as being signed to a conference report held in connection with the United States Steel Corporation case on January 24, 1924. You participated in such a conference, did you?

Mr. HERING. Yes; in an advisory way.

Mr. HARTSON. Will you state the circumstances under which that conference was held?

Mr. HERING. I was not at that time a member of the amortization section, but inasmuch as I had sat in some prior conferences when the case was in a different stage of determination, I was invited to come into this conference, and I sat in this, largely that the succeeding officers might be fully advised of the facts in the case.

Mr. HARTSON. What was it that occasioned the calling of such a conference, Mr. Hering?

Mr. HERING. It was a protest, as I remember it. I am speaking purely from memory. It was a protest of the steel company to one of the engineers' reports on one of the subsidiary corporations, and I might explain in that connection that this case was so large that we could not——

Mr. HARTSON. Just a minute. Are you referring now to the conference held on January 24, 1924?

Mr. HERING. Yes, sir; I am coming up to it.

Mr. HARTSON. All right.

Mr. HERING. The case is so large that we could not handle all features of it in one conference; so we had been holding conferences along from time to time, as reports were prepared and submitted to the taxpayer, and I think this conference came up as one of the last—perhaps the last—that was held in connection with an engineer's report, and I think it was brought up by a protest of the taxpayer to certain allowances made in the Chickasaw Shipbuilding Co. matter, and this conference report does not fully set forth all that was done at that conference. We considered the taxpayer's objections in part to that particular report, and considered the general features of the whole case.

The CHAIRMAN. Have you any recollection of just what the taxpayer's claim or criticism was that you dealt with at this particular conference?

Mr. HERING. I think it is in the files of the case but I have not refreshed my memory on it recently.

The CHAIRMAN. Will counsel please look that up and see what it is?

Mr. MANSON. My attention was just called to another——

The CHAIRMAN. I would like to have Mr. Hering finish his statement and then you may question him after he gets through with his statement.

Mr. HERING. I was through for the present.

The CHAIRMAN. All right, then.

Mr. MANSON. My attention is called to another conference report, also dated January 24, 1924, and which appears to have been signed by you, Mr. Hering.

Mr. HERING. Yes.

Mr. MANSON. That conference report is as follows:

TAXPAYER'S CONFERENCE

THURSDAY, JANUARY 24, 1924.

Taxpayer: United States Steel Corporation.
Address: New York, N. Y.
Represented by: H. L. Austin, assistant comptroller.
Years involved: 1917, 1918, and 1919.
Matter presented: Amortization features.

PURPOSE OF CONFERENCE

The purpose of this conference was to discuss facts dealing with (1) the permanent closing of the taxpayer's amortization case, (2) presentation to the Government of documents pertaining to depreciation and summaries of costs, claims and allowances on the various cases involved in taxpayer's claim, and (3) the directing of the bureau's attention to certain apparent discrepancies (in conjunction with the American Steel & Wire Co. case) that would appear to need adjustment.

(1) *Closing of taxpayer's case.*—The taxpayer stated that all data pertaining to its case had been presented and it was satisfactory, as far as it was concerned, to close the case on the evidence submitted and the allowances made by the bureau. It was agreed between the bureau and the taxpayer that the closure of the taxpayer's case was subject to the adjustment of the values of certain facilities which were embodied in the claim of the taxpayer's subsidiary, the American Steel & Wire Co.

(2) *Documents presented to the Government.*—Taxpayer submitted two copies of a recapitulation of the summaries of its various claims and the bureau's allowances and readjustments on costs and amortization pertaining thereto. There was also submitted, for the benefit of the agent to whom the audit of the taxpayer's cases was assigned, a list of depreciation deductions, for the postwar activity years.

(3) *Adjustmnet of apparent discrepancies.*—The taxpayer stated that in connection with its subsidiary, the American Steel & Wire Co., there was an item (see No. 10, Table 19, page 65 of the bureau's report on the amortization claim of the American Steel & Wire Co.), in the bureau's report which had been included by the engineers in their calculations for amortization allowances. This item was claimed as being 100 per cent value in use and had no replacement cost claimed on same. According to the taxpayer the cost on this item would not be entitled to reduction either for replacement or amortization. This correction, the taxpayer stated, would materially result in a benefit to the Government. The bureau's attention is called to this matter in order that it might be properly investigated and corrections made accordingly. The engineers were requested to make the necessary corrections and submit a supplementary report which embodied all the necessary facts for making proper additions to the taxpayer's claim.

Interviewed by:

H. A. WHITNEY, *Engineer.*
C. B. NEWBURY, *Engineer.*
C. B. WATKINS, *Engineer.*
J. C. HERING, *Conferee.*

I understand that that item with reference to the American Steel & Wire Co. was a small item of nine or ten thousand dollars. What is your recollection as to that?

Mr. HERING. I think it was larger than that, althought I do not remember the exact amount.

Mr. MANSON. Were you present at this conference?

Mr. HERING. I think that was the same conference as this other report refers to, and I was present.

Mr. MANSON. I notice that you did not sign the conference report.

Mr. HERING. I do not think I wrote it; no.

Mr. MANSON. Do you know of anything else that occurred in that conference, other than as is set forth in those two conference reports? Was this the same conference?

Mr. HERING. I think it was all the same conference; that is my recollection.

The CHAIRMAN. Who wrote this report that Mr. Manson has just read?

Mr. WHITNEY. I wrote it.

The CHAIRMAN. What is your name?

Mr. WHITNEY. Whitney.

Mr. HARTSON. H. A. Whitney.

The CHAIRMAN. Who wrote the one that you have been reading from, Mr. Hering?

Mr. HERING. I do not know who wrote it. I rather think Mr. Watkins wrote it, but I am not sure. I signed it, however.

Mr. WHITNEY. I wrote that report.

Mr. HERING. Mr. Whitney says that he wrote both of them.

The CHAIRMAN. All right.

Mr. HERING. You will notice that I did not sign this other one, either, but I was present at the conference.

Mr. MANSON. There were also present Mr. Whitney, Mr. Watkins, and Mr. Newbury, were there not?

Mr. HERING. Yes; and Mr. Keenan and Mr. Greenidge, for a part of it.

The CHAIRMAN. Is there any reason why all of the conferees do not sign those reports?

Mr. HERING. Well, I was not a member. I was only called in informally at that time.

The CHAIRMAN. And that is the reason you did not sign it?

Mr. HERING. Yes; that is, I was not a member of that division at that time.

The CHAIRMAN. Mr. Hartson, you may proceed with your examination.

Mr. HARTSON. Mr. Hering, what occurred in reference to the steel company's claim for amortization following that conference, if anything?

Mr. HERING. Well, the case has been audited, and the audit section is preparing an assessment letter, and in order that the case may not have to be reworked it was decided that the review of that audit would be made contemporaneously with the audit. The usual custom is for the audit section to prepare its assessment letter, and then send it down to review for its consideration, but on account of the size and time it takes to prepare this letter, it was the desire of the auditors that we should all work together on it, so that when it was fin-

ally sent out as the letter from the bureau, it would not be subject to further change, except on the taxpayer's protest.

Mr. HARTSON. Has this letter ever been sent out?

Mr. HERING. It has not as yet. It is still in process of formation, and to go along with that, I was assigned to the review of the amortization features of it, and I have been working on it for several weeks—perhaps a little longer.

Mr. HARTSON. Mr. Hering, you are not connected with Mr. Greenidge's engineering division, in any way, are you?

Mr. HERING. No, sir; I am not connected with it. As I stated a while ago, I am a reviewer now, in the review section of the consolidated returns audit division.

Mr. HARTSON. So far as your knowledge goes, has there been any dispute about the amortization allowance to this taxpayer, following the conference of January 24, 1924, which would result in a submission of some of these disputed questions to the solicitor's office?

Mr. HERING. Well, possibly, yes. In the first place, let me say that this conference of January 24, 1924, did not deal with the question of costs involved. All the engineers' reports are prepared subject to check of costs and contractual amortization by the auditors, and that is the part of the work on which I have been engaged. That feature is still open and may possibly be the subject of further conference with the taxpayer. This other question to which Mr. Greenidge alluded, as to the principles involved in the allowance of amortization, whether the value in use should be applied to the depreciated costs, has also come up in a case where it is really a subsidiary of this steel company, but which could not be included in this consolidated group, for technical reasons. That case has been sent to the solicitor's office, with a memorandum calling his attention to that question, and if a ruling any different from what was involved in the engineer's report had been made, this case would have been taken up for further consideration on that point.

I want to say, though——

Mr. MANSON. I am not sure that I caught that last statement. I will ask the reporter to read it.

(The reporter read the statement as above recorded.)

Mr. MANSON. In order that I may follow you and understand what you are driving at, the question that you have in mind as being submitted to the solicitor was the question of whether value in use should be applied to postwar cost of reproduction or to the actual cost, was it not?

Mr. HERING. Yes; that is depreciated postwar costs.

Mr. MANSON. Yes; depreciated postwar costs.

Mr. HERING. Yes.

Mr. MANSON. What do you mean by "depreciated postwar costs?" Give us a concrete illustration of it.

Mr. HERING. Take, for instance, a building. If the building were actually built, say on August 1, 1917, and the end of the amortization period was December 1, 1918, if we were figuring the replacement cost of that building, we would figure what it would cost now, and then to that cost now we would apply depreciation for the period of its existence, from the time it was completed to the end

of the amortization period, in order to get at what was its actual cost——

Mr. MANSON. In depreciated physical condition?

Mr. HERING. In depreciated physical condition, at the end of the amortization period.

Mr. MANSON. I see. Is that the question that was submitted to the solicitor in that case of the subsidiary which is not included in the group of cases which we are considering here?

Mr. HERING. Yes.

Now I wanted to go on to say that before I make a final report of my review in this case, I had intended to do, as had been done by me, that is, to ask the solicitor's office and anybody else who might possibly be called upon to review this case, to sit in upon it, so that we could all be fully agreed upon the principles involved before it was finally passed.

Mr. HARTSON. Such principles as you had in mind as being involved, were they limited to this question that was submitted to the solicitor in the subsidiary case that has been referred to?

Mr. HERING. No, sir; not at all.

Mr. HARTSON. How important were the principles that you thought might still be the subject of further discussion?

Mr. HERING. Well, particularly this question as to railroads, and the question as to whether adjustment might be made for changed production over estimated production in 1923.

Mr. HARTSON. The case proceeded, Mr. Hering, to such a state as would practically preclude any readjustment of the principles which you have mentioned?

Mr. HERING. I do not think so.

Mr. HARTSON. You were performing a reviewing function on the case, were you?

Mr. HERING. Yes, sir.

Mr. HARTSON. And had it passed your review?

Mr. HERING. No, sir; it has not yet.

Mr. HARTSON. In cases that come before you for review, and where questions exist in your mind about it, it is your custom to clear them up by either a reference to the solicitor for advice, or to some higher authority for a final discussion of the points?

Mr. HERING. Yes, sir. If they are deemed particularly important, it is, and this case is particularly important, undoubtedly.

Mr. HARTSON. Have you ever spoken to Mr. Parker, the committee's engineer, about this case?

Mr. HERING. I do not think we have discussed it particularly. We have exchanged documents back and forth.

Mr. HARTSON. From your own knowledge, do you know whether Mr. Parker knows, and did know, that this case was still in review in the bureau and had not been settled or closed or determined, with regard to amortization or any other points in connection with it?

Mr. HERING. I think he knew that I was reviewing it and that the auditors were working on it, and it had not been finally closed.

Mr. HARTSON. Mr. Hering, I wish you would explain to the Senator the formula that was used by Mr. Whitney in obtaining the percentage of value in use on these facilities which were being amor-

tized, and explain, furthermore, how that was brought into use in the bureau and what its present status is.

The CHAIRMAN. Just before you answer that question I would like to ask if there is any dispute between the bureau and our counsel as to the formula used?

Mr. HARTSON. There is no dispute—I think I can make this statement for the bureau—as to the correctness of Mr. Manson's statement of the elements going to make up that formula. I think he has correctly advised the committee as to what was done and the procedure that was followed, and the formula that was used. Am I not right?

Mr. WHITNEY. Absolutely. He had it stated in the very first part of his report.

Mr. HARTSON. That was my understanding.

The CHAIRMAN. Then, what is the use of having Mr. Hering go all over that and tell us about the formula, when it is already admitted in the record?

Mr. HARTSON. I did not have in mind at all questioning the correctness of the formula, as stated to the committee.

The CHAIRMAN. I thought that was admitted.

Mr. HARTSON. I have this in mind, that a statement of the formula, and a criticism of any formula based upon averages may not be well taken, in view of conditions which the bureau has to confront in attempting to arrive at a proper amortization allowance of a company such as the United States Steel Corporation is, in size.

The CHAIRMAN. I do not object to your putting in any statement or testimony to controvert the conclusions reached by counsel, but I do not care to hear all over again the formula which I have already listened to.

Mr. HARTSON. I do not have in mind restating the formula.

The CHAIRMAN. That was involved in your question.

Mr. HARTSON. Yes.

The CHAIRMAN. I just do not want to take the time necessary to review that.

Mr. HARTSON. I do not know whether Mr. Hering can justify the formula or whether he desires to do it. I do not know.

The CHAIRMAN. Would it not be well if the bureau took Mr. Manson's criticisms, and if they wanted to, point out why the criticisms were not justified, or, if they wanted to admit that they were justified, to just simply say so for the record. I say that just because I want to simplify matters here and to avoid repetition of a lot of statements that we might agree upon.

Mr. HARTSON. Senator, that would be a most satisfactory thing to do, if that could be done. It is pretty hard for anybody to speak for the bureau. You no doubt realize that there are hearings on many cases, such as have been presented to you, and people inside the bureau differ about these things just like the members of your committee will no doubt differ about some of them. To concede a point that has been made by Mr. Manson with regard to the correctness of the objections to this formula that has been used, might very readily be made by me, even as solicitor for the bureau, but might not be concurred in by the audit branch of the bureau, and the commissioner might follow the ideas of the audit branch of the bureau. So what I am trying to elaborate on is this, that somebody

has to make these decisions. I am not prepared here, and I think it is inappropriate for me, as legal adviser to the bureau, who properly has these questions, upon occasions, submitted to him for advice, to offhand state that I think it is right or wrong, because, after all is said and done, it would be largely a snap judgment.

I can tell you what has been done. Mr. Manson has correctly referred to two things that have received approval. One was written in the solicitor's office and the other has received the approval of the solicitor with regard to amortization questions generally; but these individual cases do not come to the solicitor's office; they can not go to the solicitor's office; they have to be settled and closed. There has been in the settlement, in the closing of hundreds of these war cases, thousands of these war cases, involving amortization claims, an honest attempt to reasonably adjust them, yet you can sit here and differ with the bureau in many of the cases, and point out the things that do not look well to you. The question then constantly arises, "Shall we go back and open them all up because we have changed rulings; we have had to change our positions"——

The CHAIRMAN. When you have made changed rulings is a taxpayer who has settled his case entitled to the benefits of the additional assessments, or is he justified in receiving additional settlements based upon your new ruling?

Mr. HARTSON. That is true, Senator. The taxpayer is entitled to the benefit of a change of position by the bureau on any construction of the statute or its regulations. However, that is subject to certain limitations of law which, in some cases, do not permit the bureau nor the taxpayer to make any change after a case is settled and closed.

The CHAIRMAN. What is his recourse, then? A court at law?

Mr. HARTSON. He has none. If the five-year limitation period has expired, for instance, and no waiver has been filed extending the period within which a refund can be made the taxpayer, even though in the meantime a favorable ruling has been made by the bureau on the principles involved in the final settlement of his case, can not go back and take advantage of this change. That is prevented, due to the expiration of the statute of limitations, as to any change being made or any refund being allowed.

The CHAIRMAN. Then, as a matter of general principle, do you think that is equity?

Mr. HARTSON. I think there is no equity in a statute of limitations. I think that is an arbitrary thing. It works both in favor of the Government and against the Government on occasions, and in favor of the taxpayer and against the taxpayer on occasions; so that looking at the whole picture, it is just as equitable for the taxpayer as for the Government.

The CHAIRMAN. I did not ask as to whether it was equitable with reference to the statute of limitations. I had reference more particularly to the change of ruling of the bureau, because I wanted to bring out whether, when the bureau makes a change in its ruling which will materially affect numerous cases that taxpayers have had before the bureau, the bureau is warranted, as a matter of equity, in changing a ruling after so many cases have been disposed of?

Mr. HARTSON. Well, Senator, you would have us change our ruling on some of these cases that have come before you, because

you think they are wrong, and certainly, if they are wrong, we ought to go back and take care of everybody who has been the victim of our error.

The CHAIRMAN. Absolutely. There is no question about that, and that is the reason I bring up the question as to whether or not the bureau can take care of these cases where they do change their ruling, and where they make it more favorable to the taxpayer which has his case immediately before the bureau and disregard the taxpayer who has had his case before the bureau years in the past.

Mr. HARTSON. Subject to the limitations of the law, Senator, the taxpayers are given the benefit of the changes in rulings.

The CHAIRMAN. Are they given that benefit if they accidentally come across a ruling, or does the bureau notify them that, owing to a change of decision, they are entitled to some further consideration.

Mr. HARTSON. That point was discussed last spring, Senator, and this is my answer to it. The bureau does not go back, and can not go back, into old files and pick them out to find whether, out of 10,000 or 15,000 cases, one of those cases falls within a class which is favorably affected by a more recent ruling. So we can not volunteer, in other words, the return of money that has been paid on a construction which has, in the meantime, been changed. Indeed, we can not do so. The law says that before anything can be refunded to the taxpayer, a claim therefor must be filed. Now, the Senator's answer to that would be: Why don't we notify the taxpayer that he can file a claim and get his money back? Our job is too big. There are too many people involved. There are too many cases there, and the work that would be involved in digging through all of the old cases to find out whether some small percentage of them was affected by a changed ruling, would not be warranted. I will venture the assertion that the taxpayers, by reason of familiarity with the conditions in the bureau with regard to the rulings of the bureau and the widespread publicity that is given the rulings of the bureau, are, very few of them, asleep on their rights.

The CHAIRMAN. Well, I hope it is correct that these changed rulings have done no injury to any material number of taxpayers.

Mr. HARTSON. I think that is true. I have known in my experience, Senator, of, I think, three or four cases which, to my mind, were very unfortunate from the standpoint of the taxpayer, where the limitation of law has set up a barrier, against which the taxpayer could not get favorable action. As a general proposition, though, I think the limitation period has not operated to the very great detriment of the taxpayers. Experience has shown that that limitation period has been extended by Congress several times. We now have the five-year period with regard to earlier acts, which itself may be extended by the taxpayer in the meantime filing a waiver of the right to have the commissioner to assess within the five-year period. So that there has been a considerable and substantial amount of liberality shown to taxpayers in letting them file claims, and in considering, maybe, informal claims as claims for refunds, so that their rights have not been very seriously prejudiced.

The CHAIRMAN. You spoke of publicity a while ago. I understand that you believe there is quite sufficient publicity in connec-

tion with these cases and with these rulings, so that all taxpayers may receive justice?

Mr. HARTSON. At the present time, I believe that thoroughly, and I believe that has been the condition for over a year. It is true that there was a time when, due to the large number of cases that we were going through, together with the fact that many of them were unique unto themselves, rulings made in each instance were not given wide publicity, but I believe that has been entirely eliminated now. Every ruling which is used as a precedent in the bureau to-day, under instructions of the commissioner, must be published in the Internal Revenue Bulletin.

The CHAIRMAN. In one of your previous statements you said that it was difficult for anybody to speak for the bureau. I would like to ask if Mr. Nash can not speak for the bureau?

Mr. NASH. Not on these technical questions, Mr. Chairman.

Mr. MANSON. It strikes me that we ought to have somebody here who can.

The CHAIRMAN. I want to find out who can speak for the bureau with regard to these questions that we raise, as to questions of policy.

Mr. NASH. I can speak for the bureau on questions of policy.

The CHAIRMAN. Then, the questions that I asked Mr. Hartson, I should, perhaps, have directed to you, and you could answer them. I do not just recall the questions now, but Mr. Hartson said it was difficult for anyone to speak for the bureau.

Mr. HARTSON. If I may, Mr. Chairman, qualify, possibly, what I said, I am speaking particularly with regard to these technical questions. I can speak for the bureau, I said, if my opinions are approved, and they are in nine cases out of ten, as the Senator knows, when the matter is before me in a manner which makes it possible for me to give some worth while expression of views upon the matter. These cases, as the Senator knows, come up before the committee on two or three days' notice. My situation is quite different from that of counsel representing the committee. I am trying to carry on my work in my own office down there; I am trying to do it, and I must say with very poor success; but I have not the opportunity to study these particular cases, although, if the Senator will remember, in the estate tax questions, which involved criticism of the actions of my own office, I spoke with some knowledge, and welcomed the opportunity to talk about something I knew a great deal about.

But these cases have not been before me; they have not been before the solicitor's office, except on the occasions that Mr. Manson has mentioned. We take up such and such a case, and I discuss it with the auditors and the reviewers and others who have had any connection with the matter in its adjustment in the bureau, and I form my ideas concerning it, and I come up here and try to present, or make an attempt to present, the bureau's views on it as to what has been done; and yet, if that very case had been before my office I might have taken quite a different view of it—quite a different view. And then the Senator asks me what my opinion is——

The CHAIRMAN. Just a minute. At that point, I want to say that we are not overly urgent as to having an answer immediately. If

the solicitor desires to say, in response to any particular question, "We will answer that the day after to-morrow or a week from to-day," or some other day, that will be satisfactory to me, because, under no circumstances do I want to embarrass the bureau by asking them for snap judgment or snap decisions in connection with these matters—to give decisions without due thought—because I do not want them to have an alibi later on, at any time, that they did not have an opportunity given them by this committee to properly present their case. I want to give you all the latitude in the world and all the time in the world to straighten these matters out, because I think this work is going to turn out to be constructive, and both Congress and the bureau will get considerable information from these discussions.

Mr. HARTSON. Because on the point that I had reference to of not being able to speak for the bureau—somebody can speak for the bureau on everyone of these questions that arise; but, as I have pointed out, I do not want to express the views of the Solicitor of Internal Revenue on questions of a technical nature that arise here without some opportunity to go into them, and the Senator has very generously offered me that opportunity, if I ask for it when a question arises.

The CHAIRMAN. I would like to ask at this point when, in all probability, the Steel Corporation case will be closed?

Mr. HARTSON. I discussed that to-day with some of the people who are following the administrative work in the bureau. I think the case can not and would not have been closed, in the absence of any inquiry on the part of the committee, for a year. The questions that have arisen are such and the size of the taxpayer is such that no doubt some of the deputy commissioners or the commissioner himself would be advised of the final settlement here; and if there are any criticisms that were to be made of it then in the bureau, they would undoubtedly be taken up by the commissioner.

The CHAIRMAN. When this return of the taxpayer was first made, was there a letter of assessment sent out?

Mr. HARTSON. When a return is first made, that assesses itself, in a sense. Upon the filing of the return the tax shown to be due is scheduled by the collector on his books and is returned to Washington, so that the commissioner can certify to that, and it immediately becomes the assessment in the amount returned.

The CHAIRMAN. Does the taxpayer pay his tax then or does he wait for a further communication from the bureau?

Mr. HARTSON. No; he does not even wait for the commissioner to sign the schedule. He pays the taxes on the installment basis or in full.

The CHAIRMAN. Then in this case the taxpayer has paid his tax on the basis of his return?

Mr. HARTSON. That is right.

The CHAIRMAN. In that return he deducted these amortization claims?

Mr. HARTSON. Well, I think not. He may have deducted up to 50 per cent.

The CHAIRMAN. Wait a minute; I want to clear this up.

Mr. HARTSON. I would like to have Mr. Hering answer that, if he knows.

Mr. HERING. He did not deduct the full amount that he claimed later on.

The CHAIRMAN. What did he deduct when he made his first payment return?

Mr. HARTSON. The Senator will bear in mind, of course, that this claim for amortization and its full extent was not known by the taxpayer until after the return for the particular years in view was filed.

The CHAIRMAN. Yes; but when he filed his return——

Mr. HARTSON. For 1918, say?

The CHAIRMAN. Yes.

Mr. HARTSON. He filed that in the spring of 1919.

The CHAIRMAN. And he paid on his return?

Mr. HARTSON. He paid his tax based on what he returned.

The CHAIRMAN. And at that time he deducted no amortization?

Mr. HARTSON. Yes; he made a deduction.

Mr. MANSON. He made a deduction of $56,003,021.39.

Mr. HERING. I think that includes this subsidiary that was later ruled out.

The CHAIRMAN. But we are getting back into the details, and I want to have this matter cleared up.

Mr. MANSON. On the consolidated return, there was deducted for the years 1918 and 1919, $49,054,905.29.

The CHAIRMAN. We are getting away from the story. You are talking about 1918 and 1919, and I am talking about when it made its 1918 report.

Mr. MANSON. That is what I am talking about, too.

The CHAIRMAN. But you said 1918 and 1919. Did he make a statement for both years combined?

Mr. MANSON. No, sir; not for both years combined. He totaled all the deductions made by the taxpayer for amortization in making his return.

Mr. HERING. You have them separated there in 1918, if you want it.

Mr. MANSON. Yes; the taxpayer deducted in the consolidated return what we are discussing here, for 1918, $45,797,009.02. The taxpayer deducted from its 1919 return $3,257,896.27, or a total of $49,054,905.29.

The CHAIRMAN. You are getting it all mixed up. When he filed his 1918 return, that was filed, as I recall it, in March, 1919; is that correct?

Mr. HARTSON. That is right—March 15.

Mr. HERING. No; that is not quite right. That was extended to June 15.

Mr. HARTSON. Extended to June 15, 1919.

The CHAIRMAN. When he deducted this $45,000,000, approximately, of amortization, under what law did he deduct it?

Mr. HARTSON. Under the statute itself.

The CHAIRMAN. Was that statute passed in 1918?

Mr. HARTSON. It was passed early in the year 1919. It was called the 1918 act and had effect for the entire calendar year of 1918.

The CHAIRMAN. Then, until a case is settled, does the taxpayer get the benefit of his deductions, without interest?

Mr. HARTSON. What has happened, Senator, in this case, no doubt, is that the taxpayer, after taking certain deductions for amortization, has claimed additional amortization allowance and has made a demand upon the commissioner under the law, to redetermine a proper amortization allowance for all the years, and it is that redetermination which is now in process of settlement in the bureau.

The CHAIRMAN. I ask the question, and I wonder if anybody can answer me.

Mr. HERING. I think I can give you some information on it, Senator.

The CHAIRMAN. My question is whether a taxpayer gets the benefit of the deduction that he makes, at the time he files his return, until the matter is finally settled, without paying any interest on that?

Mr. NASH. Mr. Chairman, the 1924 revenue act provides that any deficiency in the statement of the tax at the time it is originally filed that is subsequently determined must bear interest at the rate of 6 per cent from the time it should have been paid up until the time that it is paid. Refunds are handled in the reverse way. The Government pays interest on the overpayment from the date that the overpayment is determined until the date it is repaid.

The CHAIRMAN. Then, if the Steel Corporation is denied some of these claims, which the testimony seems to indicate should be denied, would they be required to pay interest on that amount?

Mr. NASH. They will be required to pay interest on any deficiency from the date it should have been paid up until the date that it is paid.

Mr. MANSON. To make that concrete, Mr. Nash, say that they deducted $45,000,000 in 1918. If, on the final determination of this case, it is found that they are entitled to $30,000,000 instead of $45,000,000 deduction, there would be an additional assessment of $15,000,000, plus the interest on $15,000,000 from the time the 1918 tax was due until the time the $15,000,000 was paid; is that right?

Mr. NASH. I believe that is what the provision in the 1924 act would imply.

Mr. HERING. I think I ought to state for the benefit of the Senator that this taxpayer has been assessed and required to pay, and I understand has paid, substantial additional amounts to his original return. These are tentative payments pending the final adjustment of the case.

The CHAIRMAN. Have you any record of those from your investigations?

Mr. PARKER. I did not go through all of the audit papers.

The CHAIRMAN. I would like to ask the solicitor this question: In the statement made by Mr. Manson yesterday, he said the following:

> The amount of amortization claimed is $83,482,961.18.

Is that a part of the taxpayer's returns?

Mr. HARTSON. It is not, Senator. Oh, it becomes a part of his return, I assume, because it is associated with it, but while I have

not the detailed facts in my mind I have not the slightest doubt but that the taxpayer since he filed his returns has come in with a demand upon the commissioner to make a redetermination and permit him to file additional claims for amortization. If I am not right about that, I would like to be corrected immediately.

Mr. MANSON. That must be true.

Mr. HERRING. That is correct.

Mr. MANSON. Because he only claimed in his return $19,000,000.

The CHAIRMAN. You do not consider that these claims made by the taxpayer for amortization and depreciation, made outside of the returns themselves, are a part of the returns?

Mr. HARTSON. Not as a part of the return itself, necessarily. It is very possibly a part of the return from the publicity standpoint.

The CHAIRMAN. That is what I was getting at.

Mr. HARTSON. Because certainly he made some claim for amortization in his return. How he segregated it between that and the subsequent claim, I do not know.

The CHAIRMAN. Have you anything further, Mr. Manson?

Mr. MANSON. In connection with this discussion as to the status of this case, I just want to call attention to the fact that the issues raised by counsel for the committee do not present any question which would not be characteristic of the claims of most manufacturers for amortization. They go to the question of whether or not amortization shall be determined by isolating the particular property upon which amortization is claimed, or whether it shall be determined by lumping the facilities of the taxpayer and getting the average use of all of his facilities. The question of amortization has been before the bureau for at least four years; but if we are only to go back to 1920, it strikes me that this question raised by counsel is one that is fundamental, it is basic, in the determination of amortization and can not at this time still be a moot question, even though it had not been disposed of by this decision published on November 3, 1924, which I have already read into the record.

I asked Mr. Greenidge the question whether this method had not been applied to most amortization claims, and he said it had only been applied to about 4 per cent. I wish to state to the committee now that either Mr. Greenidge and I are not talking about the same subject, or I believe that it will be necessary for us to go into this subject a great deal further in order to prove the real state of facts. I am satisfied in my own mind, although I do not care to make the statement as of knowledge, that as to most amortization claims the same rule has been followed as has been followed in this case with respect to the questions raised by the issues presented by counsel for the committee.

The CHAIRMAN. Mr. Greenidge seemed to indicate that you and he were not talking about the same thing. Is that correct?

Mr. GREENIDGE. Yes, sir.

The CHAIRMAN. Will you tell us what you are talking about, then?

Mr. GREENIDGE. I was talking about the use of value in use as applied to lower replacement costs and reflected back into original cost; so that Mr. Manson's statement is essentially correct.

The CHAIRMAN. Then, I would like you to answer the question that Mr. Manson propounded a while ago, which was to the effect

whether it was your understanding that, generally speaking, the claims for amortization had been settled on the basis which has been agreed upon, at least tentatively, in the Steel Corporation case.

Mr. GREENIDGE. Yes, sir.

The CHAIRMAN. That answers your question, does it not?

Mr. MANSON. Yes.

Mr. HARTSON. Mr. Greenidge, as you know, Mr. Chairman, is in the engineering section. Mr. Hering was for some considerable period of time assistant chief of the amortization section; they being two entirely disassociated organizations. I would like to ask Mr. Hering whether, according to his knowledge, Mr. Greenidge has correctly answered Mr. Manson's question.

Mr. HERING. I would say yes, generally speaking. Of course, there have been certain minor differences.

Mr. HARTSON. The criticism that Mr. Manson is making is with regard to the formula and the elements going to make up the formula. He has criticized the use of any formula at all——

Mr. MANSON. This formula, and then the others.

Mr. HARTSON. Yes. He then suggests, of course, that conceding for the sake of argument that a formula is proper, the elements and factors used in arriving at the answer in this case were entirely improper and irregular, and you say that substantially the same methods have been followed in similar cases.

Mr. HERING. I would like to explain that a little, if I may.

Mr. MANSON. Certainly.

Mr. HERING. One thing that I understand Mr. Manson criticizes is the use of the three years, 1921, 1922, and 1923?

Mr. MANSON. Let us talk about the formula first. The first criticism that I raised was——

The CHAIRMAN. I want to get this clear in my own mind. Mr. Hartson asked the question whether, generally speaking, these cases have been settled on the same basis. Now, we will discuss the formula afterwards, but we are getting all mixed up here.

Mr. MANSON. All right. Pardon me.

The CHAIRMAN. What is your answer to Mr. Hartson's question?

Mr. HERING. I said yes, generally speaking, but that there were certain minor differences, and I want to explain what those differences are.

The CHAIRMAN. Let us finish that, then. You may make your statement.

Mr. HERING. We have not in all cases used the three years 1921, 1922, and 1923 alone. You must remember that in the settlement of these cases in 1919, of course, we had to use such data as could be procured. At that time what the production would be in 1923 was merely a wild guess; so, as we went along, we naturally used the years on which we could get actual figures or some definite basis on which we could estimate them.

The CHAIRMAN. That made a great deal of difference in this particular case, did it not?

Mr. HERING. Well, I do not know whether it did or not. Mr. Manson indicated that in some respects we might have allowed more

for amortization if we had used the prior years, but I will say, broadly speaking——

The CHAIRMAN. In other words, the general difference between the settlement or the proposed settlement, in this case, and the prior settlements is related only to the question of production during the years that you had available at the time?

Mr. HERING. I would say that that was the chief difference.

The CHAIRMAN. The formula was generally the same, but you had different years to deal with?

Mr. HERING. Yes; we had different data available.

Mr. MANSON. I want to point out at that point that Congress, in amending the act, did so upon the assumption that some taxpayers would be injured by reason of the determination made in earlier years upon insufficient data, and that in other cases the Government would be injured. For that reason Congress provided in that act that at any time before March 4, 1923, the commissioner should, upon application——

The CHAIRMAN. Are you talking about 1923 or 1924?

Mr. HARTSON. March 3, 1924.

Mr. MANSON. March 3, 1924—that at any time before March 3, 1924, the commissioner was required, upon application of the taxpayer, to redetermine amortization and that in other cases he may redetermine it. In other words, if the taxpayer is injured and makes application for redetermination, the commissioner is bound to do it; and if the Government is injured, the law at least implies that he is supposed to do it. But what I am trying to get at here is that while the steel company's case in itself is an important case, the steel company's case by itself is not as important as the entire application of these principles to all cases, or to most of the cases, and that the question that we are raising in the steel case, even though the steel case is not finally disposed of, is not a moot question; it is not a mere abstract question, and I have hoped that it was not going to be necessary for us to go into any more cases which had been actually closed, so that the Government could not profit by our investigation in order to develop the practice of the bureau with respect to the determination of amortization. And certainly it was not intended to do any injustice to the bureau by taking a case which they had not had an opportunity to thoroughly consider and finally dispose of.

Mr. HARTSON. Well, there is no question but what we have had an opportunity to thoroughly consider the United States Steel Corporation case. It has been there so long that the greatest consideration possible has been given to it; but the point is still well taken of course, that the case has not been closed, and it is only in process of review. It is quite possible—and no one can see just what the result would or might be—that an assessment letter should go out to the steel company, involving some additional assessments, which would take the case, maybe, to the Board of Tax Appeals. I do not just know what the adjustments are going to be. It may be they will have a refund; it may be that they will have an overassessment; I do not know; but the case has not been closed and, furthermore, I think we can agree that the formula itself has been a plan usually and customarily used for determining, for a concern such as the United States Steel Corporation, the value in use of its properties acquired during the war.

Mr. MANSON. If that is true, then the formula generally applied to this class of cases is a formula which is absolutely condemned by the only ruling that has ever been published by the bureau.

The CHAIRMAN. I would like to ask if it is agreeable to the bureau that they take the questions raised by Mr. Manson in the beginning of this particular case, analyze them, and present an argument or statement to the committee as to what the bureau's views are in connection with those issues, whether they agree that they are warranted and, if warranted, whether the bureau is willing to open up these amortization cases and revise them, or just tell us what the attitude of the bureau is in connection with these claims made by counsel for the committee.

Mr. HARTSON. As I understand it, Senator, you mean to take the points of criticism that Mr. Manson has made in the steel case as being points that the committee is questioning as to the same practice and procedure on matters of principle that have been followed in other cases, and develop either an answer to justify what has been done, or a confession that a mistake has been made in the settlement of these points, and then an announcement to the committee of just what the bureau's position is with regard to it?

The CHAIRMAN. It seems to me that that would be the proper procedure; does it not to you?

Mr. HARTSON. I have no criticism of that.

The CHAIRMAN. What do you think about that, Mr. Nash?

Mr. NASH. I think that would be the proper way to handle it, Mr. Chairman.

The CHAIRMAN. Because we should either abandon our efforts to get at this question of amortization and the methods by which it has been applied to the bureau, or we should receive some statement from the bureau as to whether they are going to pay any attention to our interpretations, because there is no use of going or wasting the time of the investigators and ourselves in analyzing these cases, if the bureau is going to stand pat on what they have done and do nothing to open up the cases for the benefit of the Government.

Mr. HARTSON. Senator, a year ago, the question came before the commissioner, and the point has now slipped my mind, which involved a change in the bureau's front on a matter of a great deal of importance, and it is not an isolated instance that I am speaking of at all. The proposition was presented to the commissioner as a matter of policy, of what he should do. It was felt by some technicians in the bureau that taxpayers, due to a favorable ruling or a favorable provision in our regulations, had benefited beyond the amount that they properly should, if a strict and literal construction of the law were applied.

But for a period of years, under this ruling, which was, on its face, entirely proper, the taxpayers, in good faith, had paid, and the bureau, in good faith, had settled and adjusted on that basis and closed the cases. Now, what should the commissioner do? This was the proposition which was made: Should he go back and open up thousands of cases, disturb the interests and the business standing of the people who were concerned, and still further confuse matters, rather than follow a procedure which had been adopted over a period of years?

I became solicitor about two years ago—two years ago the first of this coming month—and as legal adviser to the commissioner, there were two or three things of fundamental importance which I disagreed with personally, as a new mind, a fresh mind, coming in there. I had been in the office as assistant for six months before that. The taxpayers ought to be able to count definitely, with such certainty as can be developed on matters effecting their interests. This is also in the interest of the people in the Government trying to administer the law, and I venture to say that my successor is going to disagree with some of the things that I have done, and that he is going to be tempted, as I was tempted, to publish in some formal way rulings and opinions on questions of law which might be answered either way, and disturb and upset and confuse, established principles.

The tendency has been, and I am personally in thorough accord with it, that even though the Government might change a ruling and go back and collect some more money—how much we do not know—the loss to the Government in this disturbance of the stability of business conditions, and the lack of certainty that after you readjust it you may not be right, does not warrant the action being taken.

I somehow feel that while everybody recognizes the tremendous problem that has confronted the officials in the bureau dealing with the thousands of cases that have gone through, and have been settled and closed, some of them involving law points and not referred to lawyers, and some of them involving engineering points and not referred to engineers—that in the adjustment and settling of those cases, there could be to-day a better adjustment of those cases than was made three or four years ago. But whether the Government is warranted, as a matter of policy, in the light of what we now believe to be a more perfect construction of the law than was given at that time to thereby reopen and readjust all of those cases, is a matter of serious concern, in my judgment.

The CHAIRMAN. When you started to make that statement, Mr. Hartson, you said that the commissioner was confronted with the question of reversing the rulings or policy of the bureau. Did he decide that question?

Mr. HARTSON. He decided not to do it.

The CHAIRMAN. Not to do it?

Mr. HARTSON. Not to do it.

The CHAIRMAN. So we may infer from that, then, that he will not decide to do it in this case?

Mr. HARTSON. I do not think such an inference is warranted; not at all.

The CHAIRMAN. Well; it followed right upon my request.

Mr. HARTSON. Well, I am not speaking for the commissioner in this. I am merely making a statement which I think is founded on experience and conditions as they actually exist, and I do not want the Senator to lead me into an answer to his question which might embarrass the commissioner. I know the Senator has not any such idea.

The CHAIRMAN. No. But your statement followed my request, and I thought, perhaps, you were kind of preparing me to let me down easy.

Mr. HARTSON. No.

The CHAIRMAN. And that I am not expecting any action, finally.

Mr. HARTSON. No; I was not. The purpose of my statement, Senator, was this: I think it would be a very wholesome thing if the Senator's position was reversed and he were confronted with the necessity of having to make this decision in the United States Steel Corporation case. Possibly go back and carry the effect of his changed ruling through in all the other cases, and then have to face the taxpayers of this country.

The CHAIRMAN. I would just love to have to do it.

Mr. HARTSON. I think the Senator, if he would love to have to do it, would find conditions greatly different than he now anticipates they would be.

The CHAIRMAN. Well, would you like some time to take this up?

Mr. HARTSON. I would like to have some time; yes. I think it should be done very carefully. I do not want an unreasonable length of time. Does the Senator have any idea as to the adjournment of the committee during the holidays?

The CHAIRMAN. I hope they will not adjourn during the holidays. I do not know what my colleagues are going to do. Apparently they are not going to take a very active interest in the holidays. What is your judgment about it?

Mr. HARTSON. Personally, I have no interest in it at all. I have a speaking engagement at my fraternity national convention, which is meeting in Cleveland on the day but one before New Year's, and I should like to be in Cleveland on that day. Otherwise I will be in attendance on the committee.

The CHAIRMAN. I think when we approach that day we can adjust that with the solicitor. I will have to talk with my colleagues about the matter. I do not assume that there will be any objection to our going along next week, outside of Christmas Day, although Congress adjourns on Saturday, adjourning from the 20th until the 29th. I do not know whether the other Senators are going to be willing to sit during that period or not, but I am willing and anxious to do so.

How long do you think you would like to have to answer the question that I propounded a moment ago?

Mr. HARTSON. I should like to have not less than three days.

The CHAIRMAN. Have you any case that you are ready to go on with to-morrow, Mr. Manson?

Mr. DAVIS. If we drop amortization right now we could have one ready to go on with to-morrow.

The CHAIRMAN. Mr. Hartson, would the fact that we go on with the hearing interfere with your bureau getting the answer to this query that I made?

Mr. HARTSON. I am inclined to think not. No; I think the inquiry that the Senator has made with regard to this steel company case can be answered without the necessity of my being personally present during the time that the work is being done.

The CHAIRMAN. Of course, that query included not only the Steel Corporation but the general policy of the bureau.

Mr. HARTSON. Yes.

The CHAIRMAN. I would like to ask counsel for the committee this question. Suppose we let the amortization question rest for a while. Are you ready to go on on the question of this oil discovery?

Mr. MANSON. Not on that until after Christmas.

Mr. DAVIS. I think we will have a case ready on the question of depletion to-morrow, Senator.

The CHAIRMAN. What is the name of that case?

Mr. DAVIS. The New Jersey Calcite Co., a short case.

The CHAIRMAN. You want to go on with that to-morrow?

Mr. DAVIS. We can.

The CHAIRMAN. Then we will adjourn until 10 o'clock to-morrow morning.

(Whereupon, at 12.35 o'clock p. m., the committee adjourned until to-morrow, Wednesday, December 17, 1924, at 10 o'clock a. m.)

INVESTIGATION OF THE BUREAU OF INTERNAL REVENUE

FRIDAY, JANUARY 2, 1925

UNITED STATES SENATE,
SELECT COMMITTEE TO INVESTIGATE THE
BUREAU OF INTERNAL REVENUE,
Washington, D. C.

The committee met at 10.30 o'clock a. m.

Present: Senators Couzens (presiding), Watson, Ernst, and King.

Present also: L. C. Manson, Esq., of counsel for the committee.

Present on behalf of the Bureau of Internal Revenue: Mr. C. R. Nash, assistant to the Commissioner of Internal Revenue; Mr. Nelson T. Hartson, solicitor, Bureau of Internal Revenue; and Mr. S. M. Greenidge, head engineering division, Bureau of Internal Revenue.

The CHAIRMAN. Mr. Manson, you have a matter to present to the committee now?

Mr. MANSON. Yes. Mr. Chairman, I would like to take about 15 minutes to complete the record in the United States Steel Corporation case. As the case stands now, it stands on my bare statement. All the data that I care to put into the record is in the shape of exhibits. None of it need be copied into the record, and none of it need be read, as I think the department is familiar with all of it.

Senator ERNST. Are they necessary to sustain the statement that you are going to make?

Mr. MANSON. Which I have already made.

Senator ERNST. Then, how are we going to know if your statement can be sustained unless we have those some place?

The CHAIRMAN. They are to be attached to the record, Senator.

Senator ERNST. Oh, they are to be attached to the record. I did not know that.

Mr. MANSON. I want to offer them as exhibits in order to sustain the statements that I have made.

Senator ERNST. There is no objection to that.

Mr. MANSON. Exhibit A–1——

Senator WATSON. Is there any résumé, Mr. Manson, that you can give us of these exhibits?

Mr. MANSON. I am going to give that to you right now.

Senator WATSON. Pardon me; I thought you were going on to something else.

Mr. MANSON. No; I am going to give you that right now.

Exhibit A–1. This is the summary report of Mr. F. Fischer, the income-tax unit engineer, who made the first report on this claim.

This report summarizes the reports on the property located in the several districts. According to this report, all of the property upon which the amortization was claimed which was in use at all was in 100 per cent use by the taxpayer.

Exhibit A-2: This is the summary report of Mr. I. J. W. Van Schaick, Income Tax Unit engineer, who examined the property of the taxpayer located in the Chicago and Duluth districts.

Exhibit A-3: This is the report of Mr. Van Schaick on the property located in the Birmingham district.

Senator WATSON. Who is Mr. Van Schaick?

Mr. MANSON. Mr. Van Schaick was the engineer for the Income Tax Unit.

Exhibit A-4: This is a compilation of extracts from the reports of Mr. Fischer and Mr. Van Schaick, showing the conclusions reached by them, following their examination of the property of the taxpayer in the Pittsburgh district, as to the use by the taxpayer of the property upon which amortization is claimed. This compilation was prepared by Mr. Parker, and shows the name of the engineer whose report is quoted from, the date of the examination in each case, and the page of the report from which the quotations are taken.

Exhibit B: This is an extract from the report of H. A. Whitney, Income Tax Unit engineer, on the claim of the Carnegie Steel Co. This extract covers pages 100 to 122, inclusive, of volume 3 of that report, and shows the method used in determining the value in use of the property of the taxpayer upon which amortization was claimed, and the percentage of value in use which was used in determining the amortization allowances made upon all the taxpayer's property.

Mr. HARRISON. Mr. Manson, was that extract from Mr. Whitney's report prepared by Mr. Parker, too?

Mr. MANSON. It was copied directly from Mr. Whitney's report. I had that done. The whole thing is taken from it bodily.

Mr. HARRISON. I see.

Mr. MANSON. The entire section of the report, explaining how he estimated the production for 1922 and 1923, and how he arrived at his factors of value in use. As I said, it is pages 100 to 122, inclusive.

Exhibit C: This is Table 1, showing the manufacturing capacity and the production of the taxpayer in its three primary products, pig iron, steel ingots, and billets, blooms and slabs, and in rolled and finished steel, for the year 1910 to 1923, inclusive. The expenditures for plant extension and improvements, exclusive of the amortization allowed by the committee's engineers for each of said years, is shown on this table.

This table also shows the rates of capacity to production for each of said years, and the increase or decrease in capacity during each year.

Exhibit D: This exhibit consists of tables 2 to 7, inclusive, and shows the calculation of valuation in use, according to the formula used by the Income Tax Unit engineers, using the factors used by them, as shown in Table 2, and by the use of the different factors discussed by the committee's counsel in his opening statement, as shown in Tables 3 to 7, inclusive.

Exhibit F: Exhibit F consists of Charts D, E, F, and G. These charts show graphically the capacity and production data shown on

Exhibit C. The dash lines marked "Capacity" show the capacity of the United States Steel Corporation for manufacturing the product indicated on the charts. The solid lines show the actual annual production, and the dotted line at the right of the actual production line shows the estimated production which was used by the Unit engineers in determining the value in use of the facilities upon which amortization was claimed.

Exhibit G: Exhibit G shows the production of all products of the taxpayer from 1913 to 1923, inclusive.

Exhibit H: This exhibit shows the capital expenditures of the taxpayer for the years 1910 to 1923, inclusive.

Exhibit I: Exhibit I shows the facilities of the taxpayer for each year, 1915 to 1923, inclusive.

Exhibit J: Exhibit J consists of extracts from the annual reports of the United States Steel Corporation, showing the purposes for which capital expenditures for plant extensions and improvements have been made during the postwar years 1920, 1921, 1922, and 1923.

Exhibit K: This exhibit shows the result of a hurried and by no means complete compilation of some of the items upon which the Carnegie Steel Co., the Union Railroad Co., and mine properties have been allowed amortization because of less than 100 per cent value in use, with identical items purchased or erected by these same companies during the postwar years 1920 to 1923, inclusive.

Exhibit L: Exhibit L is an extract from the 1923 report of the United States Steel Corporation to its stockholders, showing that during the first six months of 1923, the output of the taxpayer was 92.6 per cent of its capacity, and that the average for the year was 88.3 per cent of capacity, and that its production exceeded that of any previous year, except the war years of 1916 and 1917.

Exhibit M: This is the report of L. H. Parker, the chief engineer of this committee, upon the claim of the United States Steel Corporation for amortization, and upon the allowances made by the bureau engineers.

I will provide the reporter with copies of these exhibits, and as the bureau, I believe, is getting a copy of the testimony, they will get copies of the exhibits from the reporter, or we can supply them directly. We will supply the necessary copies, so the reporter can have them for all the copies of the record that he is making.

The CHAIRMAN. Are you finished on that matter, Mr. Manson?

Mr. MANSON. Yes; I am through.

Senator WATSON. Let me ask you a general question. I heard a good part of the testimony in the steel company case but not all of it. As a general statement, is it your contention that they used their own formula, but in coming to their conclusions, conceding that their formula was correct, they reached wrong conclusions by the use of that formula?

Mr. MANSON. I think I can state that very briefly.

Senator WATSON. Yes; I wish you would.

Mr. MANSON. My position is that the first examination of this property made by the bureau engineers showed it to be 100 per cent in use. Therefore, there was no occasion for the use of any formula.

In the second place, I take the position that the formula used was unsound, for the reasons which I stated quite fully in my opening statement.

Senator WATSON. I remember them.

Mr. MANSON. Yes. In the third place, I take the position that even if they used that formula, they applied the wrong factors. To be a little more explicit on that point, the factors applied to the formula were the actual production in 1921 and the estimated production for 1922 and 1923. I take the position that they should have used actual production for 1922 and 1923.

Senator WATSON. How did that actual production compare with what they predicted it would be?

Mr. MANSON. The actual production was very much greater.

Senator ERNST. We do not want the figures.

Mr. MANSON. No; I do not want to go into figures now unless you want me to, but that is graphically shown.

Senator WATSON. I was just trying to get a bird's-eye view of it.

Mr. MANSON. Yes; I can give it to you better right here than I could by figures.

I call your attention to Exhibit F, Charts D, E, F, and G.

Senator ERNST. You need not go into that again.

Mr. MANSON. The continuous heavy black line indicates the actual production. The red dotted line at the right of that line indicates the estimated production. It will be seen that the estimated production was away below the actual production in 1922 and 1923.

The CHAIRMAN. In other words, this estimate which was arrived at greatly increased the allowance for amortization over and above what they were actually entitled to.

Mr. MANSON. Yes. That was my first objection to the factors used.

My second objection was to the years which were used. Nineteen hundred and twenty-one was an abnormal year.

Senator WATSON. It was an abnormally low year?

Mr. MANSON. Yes; it was an abnormally low year.

Senator WATSON. Yes.

Mr. MANSON. And they used the average of 1921 and estimated 1922 and 1923.

My next objection to the use of those factors was that this method of averaging makes no provision for capacity to take care of the peak year. In other words, any average is always a horizontal line. It would always be a horizontal line on any chart. The fixed policy of the United States Steel Corporation was to constantly increase their capacity in order to take advantage of peak years when prices were highest and profits were greatest; that any method of averaging for the purpose of arriving at the required capacity is fundamentally unsound because it overlooks that element. If they had used actual production for 1923, which was the peak year of the postwar period, as the basis for determining the required capacity, that would have shown the facilities to have been 100 per cent in use; so that whether you determine the use by the actual examination of the facilities, which we maintain is the only proper basis under the regulations of the department and under the rulings of the department, or whether you determine that use by using the

proper factors as applied to even an unsound formula, you get the same result.

The CHAIRMAN. Mr. Hartson, are you ready now?

Mr. HARTSON. Yes, Mr. Chairman.

Senator WATSON. Let me ask you a question, please. What was the year of largest steel production in our history?

Mr. MANSON. 1916.

Senator WATSON. Yes; I thought it was 1916.

Mr. MANSON. Yes.

Senator WATSON. Since that year have they equaled the production of 1916?

Mr. MANSON. No.

Senator WATSON. They have not?

Mr. MANSON. No; they have not equaled it. In 1923 their production exceeded that of any other year, I think, in the history of the business except 1916 and 1917.

Senator WATSON. Of course, in 1916 they had the capacity to make what they did make. In 1917, 1918, and 1919 they increased that capacity by building new mills, did they?

Mr. MANSON. The capacity of the United States Steel Corporation has been progressively added to—I will put it that way—instead of increased.

Senator WATSON. It was added to, even though they did not use it?

Mr. MANSON. Yes. The reason I used the expression "added to" instead of "increased" is this: Every year there have been enormous expenditures made. For instance, in all of the postwar years, for the purpose of rebuilding and substituting new, modern, up-to-date and cost-saving facilities for old and worn-out facilities as the old facilities reached the end of their usefulness.

Senator WATSON. Then that is not upkeep; it is improvement.

Mr. MANSON. It is improvement.

Senator WATSON. Additions and betterments?

Mr. MANSON. Yes.

Senator WATSON. Yes.

Mr. MANSON. But there will be years when, in this process of reconstruction, the capacity decreases. For instance, they close down some furnaces to rebuild them, and then you will find a decreased capacity. But there has been a consistent policy, which is shown by the figures, and which will be shown by any study that is made of these exhibits, on the part of the United States Steel Corporation to maintain, perhaps, about the same number of large units. By that, I mean about the same number of plants, about the same number of furnaces, and about the same number of mills. But those plants become obsolete. For instance, take the case of the American Bridge Co., which is one of the subsidiaries of the United States Steel Corporation. They had a plant in Milwaukee, and they also had a plant in Chicago. The Milwaukee plant has become obsolete, and it was turned into just a warehouse. The Chicago plant was the principal plant at one time. They built a new plant at Gary, and as the old plants became obsolete, instead of replacing the equipment in them, the expenditure was made at Gary.

Senator WATSON. Was this in the amorization period?

Mr. MANSON. No; I am speaking now of the general policy of the company.

Senator WATSON. I see.

Mr. MANSON. Throughout its entire history, and going back to the time of its organization, they followed no different policy during the war period than they had followed before, and have followed since, and there has been a tremendous increase in the capacity of the company in all of its branches since the war, which goes to show that there was no excess of capacity resulting from the war, which the company considers a loss, because all the way down the line they have added to the capacity that was the result of war expenditures.

I might say in that connection that in one of these exhibits we have picked out war expenditures. For instance, in the case of the Carnegie Steel Co., in my opening statement I mentioned three furnaces in one of their plants, furnaces Nos. 3, 4, and 5. I assumed that those furnaces were standing side by side. They probably were. No. 4 had to be rebuilt during the war. It was rebuilt, and amortization has been allowed on No. 4. In 1920, No. 3 had to be rebuilt, and in 1922, No. 4 had to be rebuilt. Now, I take the position that if No. 3 was not 100 per cent used by them, they would never have rebuilt No. 4. I am getting twisted——

Senator WATSON. I get you point, though.

The CHAIRMAN. Yes; I think we get your point.

Mr. MANSON. I mean No. 5. If they had not needed No. 4 they would not have rebuilt No. 3 since the war, and they would not have rebuilt No. 4 since the war.

Senator WATSON. I get what you are driving at.

Mr. MANSON. They had some facilities that were specially for war purposes, which they had no use for after the war. We concede that they are entitled to 100 per cent amortization on those facilities. They have been allowed it, and we do not question the allowance made on facilities which have been discarded, like shipyards, and I think gun plants. They had a howitzer gun plant in Gary. We do not question that at all; nor do we question the allowances, which will be the difference between the war cost and the postwar cost of reproduction.

I have just one more suggestion to make.

Consideration of this case was started on December 15, and continued during December 16. There is nothing in the record except this case on either of those dates. We have now had a whole lot of other matters which have intervened, and I would like to suggest that the committee order the reporter, in case this record is printed, to cause the proceedings beginning to-day and until this case is disposed of to be printed immediately following the proceedings of December 16, in order that the case may be continuous in the printed record.

Senator WATSON. It certainly ought to be. We do not want to have it split up. I thought that that was being done with all of these cases, that they were being segregated in the record.

Mr. MANSON. If that will be ordered, I will take it upon myself to see that that is done. I think it should be done.

Senator WATSON. There is one objection to having that done.

The CHAIRMAN. Without objection, that will be done.

Mr. HARTSON. Mr. Chairman, the bureau has this to say in reply to Mr. Manson's criticism of the proposed amortization allowance of the United States Steel Corporation:

In the opening statement of counsel for the committee, it is alleged that the first engineers, who disallowed amortization, made a segregation of the amortizable assets from the other assets of the corporation. This is erroneous. No such segregation was, in fact, made, the first engineering investigation being far less thorough than the second. The disallowance of the first claim, as stated in the reports, was based on the ground that the facilities were in full use. However, the claim was also set up on a wrong basis, the replacement costs being calculated on pre-war costs, which was a basis not recognized by the unit. In other words, the claim of the company was on an erroneous basis, according to the practice of the bureau. This error alone would have been sufficient ground upon which to disallow the claims for amortization.

It should also be remembered that this action was taken after investigations made in 1920 on claims filed in 1918 and 1919. At those times, it was well known that the taxpayer had a clear, legal right to request a redetermination of amortization at any time prior to March 3, 1924, and that such request could be based on changed conditions. It was, therefore, well understood, at the time the first claims were rejected, that such action was only tentative, that revised claims would be filed at a later date upon a different basis, and that they would be given careful consideration.

No finding was made in the first reports to the effect that the continued use of the property would be 100 per cent, as is claimed in statement of counsel for the committee. It is true that in the first report the engineers found the facilities 100 per cent in use.

The CHAIRMAN. What was the date of those reports?

Mr. HARTSON. 1920.

Mr. MANSON. It was in May and June, 1920, when the examinations were made.

Mr. HARTSON. But they did not find, and we are seeking to make the point here that they did not find, in 1920, that those facilities would continue to be in use 100 per cent during the balance of the postwar period. It is true, however, to say that they found those facilities were 100 per cent in use.

The criticisms of counsel for the committee are divided into two parts; first, the formula used by the bureau's engineers to arrive at the value in use of taxpayer's property, and second, the factors used by the engineers in the application of the formula to the amortization claim of this particular taxpayer.

Counsel's first objection was to the effect that the bureau adopts the average of required capacity as the maximum capacity which will have a value in use to a taxpayer's going business.

That is not very well worded in this statement that I am making, and I would like to elaborate on it.

Senator WATSON. Yes; say it in your own words.

Mr. HARTSON. Counsel criticize the use of the formula because it adopts an average of required capacity as the maximum capacity which will have a value in use to the taxpayer after the war.

Senator WATSON. What do you mean by "required capacity"?

Mr. HARTSON. It is necessary, of course, for the officials, in determining the amount of amortization on this value in use principle, to determine the after-war use of a facility acquired during the war, and it is necessary, according to this formula—and counsel, of course, is criticizing the formula—to determine the amount of use that these facilities have, and the criticism here is that we have used an average capacity as the maximum capacity which will have this value in use after the war.

The CHAIRMAN. You do not mean "capacity"; you mean "use."

Mr. HARTSON. Yes; but of course, you have to arrive at capacity to determine the use, because if you have a capacity which is not being used, you have, therefore, an excess value in use.

The CHAIRMAN. Yes; but I mean you do not use the average for capacity, but the average for use, because the capacity, it is to be assumed, has to be higher than the average in use?

Mr. HARTSON. In the use of this formula, of course, we have used an average capacity.

The CHAIRMAN. Do you mean to say that you do not consider the maximum, you do not consider the maximum capacity of the plant?

Mr. HARTSON. Yes; we adopt an average required capacity as the maximum capacity.

Mr. MANSON. Then, I did not misstate it?

Mr. HARTSON. Oh, no.

Mr. MANSON. No.

Mr. HARTSON. I am not criticizing counsel's statement of it. That is just what we do.

Mr. MANSON. Yes.

Mr. HARTSON. The point I am making here is that we justify that here in such a business as the United States Steel Corporation business, although recognizing that in some seasonal business the application of such a formula would be erroneous. Of course, we do not use the formula in determining the amortization allowance for some seasonal business.

The CHAIRMAN. Would you call a business a seasonal business which, at certain periods of the 24 hours, would require a peak load?

Mr. HARTSON. No, sir; I would not, Senator.

The CHAIRMAN. Why do you discriminate between a utility having a peak requirement and an organization or manufacturing concern having a peak requirement?

Mr. HARTSON. The distinction between a seasonal business and such a business as would require during certain periods of the day a maximum capacity which during other periods of the day it does not need is very clear, and I think there is no disagreement about it.

We take in the use of this formula the average maximum capacity, but we do not take the top figures which counsel has suggested we should take, namely, the highest capacity during the most favorable months of the year.

Mr. MANSON. Just a minute. I remember conceding in my argument that you would be entitled to average within a year, but I took the position that inasmuch as the ordinary customer for steel would expect his order to be filled within a year, that averaging

could not extend beyond a year. All of your averaging is based upon your production. Now, if you take the annual production as the basis of the average of several years, your annual production itself is the total of your actual production in each month, and is not twelve times your maximum production in any one month. In other words, when you take annual production, which is the basis of all of these figures, that annual production represents the total of the highest and lowest added together. It is the basis of an average. In other words, if you divide your annual production by 12, you would get a monthly figure which would be very much below the peak month.

I have conceded the right to use annual production. I have not questioned that. Inasmuch as I do not question annual production as the basis of figuring, then I concede, of course, the right to average over a year.

What I object to is, assuming that the capacity which is based upon the average production of a year like 1921, 1922, and 1923 will take care of the demand in 1922 and 1923.

Senator WATSON. What do you assume the average to be? Suppose, for example, it is 40,000,000 tons in January and 20,000,000 tons in July, the maximum and minimum. Do you want to strike the average from the highest to the lowest, or do you want to take that whole year and average it by dividing by 12 and striking your average in that way for each month?

Mr. MANSON. That would be the only way they could. What they have actually done is to use annual production figures. I concede their right to use annual production figures instead of the maximum monthly production figures.

The CHAIRMAN. I think, in going that far, you are going a long way.

Mr. MANSON. I have done that because the Steel Corporation might use 100 per cent value in use. You do not need to go that far. In other words, you can concede that, but that, as the Senator says, is conceding a whole lot. That is conceding the ability of the Steel Corporation to carry over into the slack months the orders received during the peak months. Of course, you have the policy of the Steel Corporation involved here, which I maintain is the best evidence of what their requirements are.

Senator ERNST. I do not object to this long discussion, but it seems to me that you have made your position clear in the matter, and we should give the Government an opportunity to put in its side.

Senator WATSON. Yes; I think so, too. I will not interfere any more, as far as I am concerned.

Mr. HARTSON. I have no objection, personally, to these interruptions.

Senator ERNST. I know you have said so, but, for my own benefit, I would rather have you present your case uninterruptedly.

Mr. HARTSON. The fundamental aim in all amortization computations is to establish the value under normal postwar conditions of the property retained in use. Neither the law nor the regulations accurately define what normal postwar conditions are, and, as a matter of fact, no one definitely knows, even now, whether condi-

tions are normal. During the years 1919 to 1923, the problem of the bureau was to determine the amortization allowances of numerous taxpayers within the period of limitation fixed by Congress, and without knowing how the taxpayers' businesses would be affected in future years. It has been the view of the bureau that a fair value in use for an ordinary business must be closely related to the average use rather than to the peak use. For example, if a business were for sale as a whole and it could be shown that in one year, owing to high production, it made a 10 per cent return on the investment, and in the preceding and succeeding years, owing to low production, it made a 1 per cent return on the total investment, a purchaser would not be likely to pay as much for the business as the value calculated on the 10 per cent return.

Further, the view that a facility is 100 per cent in use because it must be on hand to meet an occasional need, is not considered to be sound. A lathe, for example—the example used by counsel—may be used only once a week when, under normal business conditions it would be used at least once every working day. A blast furnace may be used to full capacity for six months and be closed down for the rest of the year. A power plant may be run continuously, but so slowly that only half of its capacity is developed. It is blieved, therefore, that the factors of time of operation, that is, the amount of operation in connection with the total time within which it could be operated, and of the load to be carried, are important elements in determining the value in use.

Of course, counsel would eliminate this entirely and state that if a facility was used occasionally, the time it was standing idle should not be taken into consideration, because the necessity for using it now and then indicates that it has a 100 per cent useful value.

The next objection to the formula used by the engineers in the bureau is that it ignores the established policy of the Steel Corporation of steadily increasing its capacity. The allegation is made that this policy is shown by the increased capacity of the corporation over the years 1910 to 1923, inclusive, and that in the period subsequent to the war large expenditures were made for facilities used for the same purposes as those for which amortization has been allowed.

It is not believed that the increased capacity during the war period can properly be considered as evidence of an established policy of the corporation to increase its capacity, and it appears in the figures available to the bureau, also from Chart D, prepared by the committee's engineers, that there was only a slight increase in capacity during the period from 1919 to 1922. The chart furnished by the engineers for the committee shows a marked increase in capacity for the year 1923, but the correctness of the chart as to this increase is doubted.

In other words, the policy of increasing capacity, which has been commented on by counsel for the committee, is based largely, so we think, on the increased capacity that was obtained during the war, and there was only a very slight increase in capacity from 1919 to 1922, and our statement here that the figures of increase for 1923 have to be used is based on the fact that we have no reliable figures on which we can accept the proposition that counsel has advanced.

Counsel's contention that the capacity for pig iron was greatly increased in 1923 appears to be based upon an erroneous calculation. It is not believed that either the bureau or the committee's engineers had actual capacities for the year 1923. It is understood that the method adopted by the committee's engineers——

Mr. MANSON. Permit me to interrupt you, if you please.

Mr. HARTSON. Yes.

Mr. MANSON. I want to state this, that our capacity figures, as I understand it, for that period, were furnished us by the bureau engineers.

Mr. HARTSON. I have no doubt that that is true.

Mr. MANSON. Yes. I know I did not make up any of my own.

Mr. HARTSON. No; I do not mean to suggest for a moment that you did.

Mr. MANSON. No; I just wanted to make that clear.

Mr. HARTSON. In other words, our own figures here have been considered by us to be not complete.

Counsel's contention that the capacity for pig iron was greatly increased in 1923, appears to be based on an erroneous calculation. It is not believed that either the committee's or the bureau's engineers had actual capacities for the year 1923. It is understood that the method adopted by the committee's engineers was to take the peak production of the various plants for the highest month in the year and to multiply that by 12 to obtain the annual production, and then to summarize the plants for the total annual capacity. This method of computation assumes that each particular plant and that all the plants in the affiliated group can run for the whole year at the highest possible production for any one month.

Mr. MANSON. Let me correct that statement.

The CHAIRMAN. Whose statement was not correct?

Mr. MANSON. The statement just made.

The CHAIRMAN. I think you had better go over that generally and make a reply later on and not interrupt now.

Mr. MANSON. All right.

Senator ERNST. Just make a note of it and reply to it later.

Mr. HARTSON. You are clear about the way that we have stated it here, that it is a multiplication by 12 of the highest month in the year for each separate plant.

This assumption allows no opportunity to shut down for repairs, for relining of furnaces, for accidents, and for various other things that make it impossible to run at highest speed for the entire year.

That the computation of the corporation's capacity for 1923, as made by the engineers for the committee, is erroneous is further indicated by Exhibit A, attached hereto, which is a tabulation of the principal classes of facilities owned and operated by the United Steel Corporation. Column 1 indicates the class of facility owned. Columns 2 to 7, inclusive, indicate the number of these various classes of facilities being operated during the years of 1918 to 1923. inclusive. Column 8 gives the increase of facilities during 1923 over those operated in 1922. Column 9 gives the decrease of facilities operated in 1923 from that of those being operated in 1922.

The capacity for producing pig iron is primarily dependent on the number of blast furnaces available for smelting pig iron from iron ore. Attention is called to columns 6 to 7 of Exhibit A. It

will be noted from a comparison of the number of furnaces available in 1922 and 1923 that the taxpayer had one less of these facilities in the latter year than during 1922, the number being constant from 1918 to 1922, inclusive, yet the committee's engineers have assigned a greater increase in the capacity for producing pig iron for the estimated year of 1923 than is indicated by the actual known increase over the years from 1916 to 1922.

The same method of calculation has been pursued by the committee's engineers with reference to billets, blooms, and slabs and the other staple products of the taxpayer and the same error necessarily arises.

In view of these figures there would appear to be considerable doubt as to the existence of an established policy on the part of the Steel Corporation to steadily increase its capacity. Certainly there does not appear to be sufficient evidence to warrant the conclusion that the formula of the bureau's engineers was deficient in not taking into consideration this alleged policy.

The criticisms that the formula ignores the salvage value of facilities, that it ignores the useful life of the facilities and that it ignores the difference in efficiency of facilities are all to be answered with the statement that the consideration of these factors was wholly impractical from an administrative standpoint. The amortization claim of the United States Steel Corporation was only one of several thousand claims for amortization and the work of making an inspection of the hundreds of thousands of facilities included in these claims, which inspection would have been necessary for a proper determination of the above mentioned factors, would have required years of labor and a much larger force of employees than could have been procured with the appropriation alloted for such work.

The amortization claim of the Steel Corporation serves as an excellent illustration of the stupendous task which would have been encountered by counsel for the committee. At the close of 1918 the United States Steel Corporation owned 145 different plants located in various parts of the United States, each plant having a multitude of facilities. The claim as presented consisted of 30 large volumes covering costs aggregating approximately $235,000,000. The amortizable facilities were mingled in the plants with other facilities making a total of both amortizable and nonamortizable assets of the close of 1918 of $1,871,261,897.75. The separate items of the entire corporation would doubtless run into the millions. Of coke ovens alone there were 24,354. For a further enumeration of plants, mills, etc., see Exhibit A attached.

The time involved in making a detailed examination and valuation of each separate item of all the amortizable facilities in the United States, involving not only the United States Steel Corporation but more than 5,000 other corporations, many of which also were very large, would undoubtedly have required a great number of years and the cost would have more than offset any advantage which the Government might have gained in taxes, not to mention the unsettled state of business which would have resulted from the failure to determine the amortization allowances and the amount of taxes for these years. In view of these conditions it seems clear that the incorporation into the formula of the factors of salvage

value, of useful life and of difference in the efficiency of the various amortizable facilities was wholly impracticable.

I think it may be stated here, Mr. Chairman, that, technically, I believe counsel is entirely correct in criticising the bureau for not taking those elements into account. To be technically accurate, they should have been. To complete our job, it was entirely impossible to do it.

That is the bureau's answer to this proposition.

The CHAIRMAN. In other words, the administration practically let the taxpayer fix his own amortization claim with respect, at least, to those factors?

Mr. HARTSON. I am not prepared, Mr. Chairman, to admit that. I doubt very much, in my own mind, whether that is true. I think, looking at the result here, we have not such a result as would indicate that the taxpayer had fixed his own allowance and had gained a tremendous advantage over the Government.

The CHAIRMAN. I say, with respect to those factors which you have just mentioned?

Mr. HARTSON. How important they would be, it is difficult to say with any definiteness. The major items are taken into account.

In connection with this, counsel for the committee has read into the record the opinion of the solicitor, the citation of which is I. T. 2101, Bull. III–24–1851, wherein it was held that in determining value in use of amortizable facilities, the value of the specific facilities should be determined. In other words, the Solicitor of Internal Revenue had advised the unit some time ago along the same lines that counsel has advised the committee.

In response to this ruling, the amortization section of the Income Tax Unit promptly pointed out to the head of the division, to the superior officer, that literal compliance with the plan suggested was entirely impracticable with the available force of engineers.

The memorandum of the amortization section is as follows. Now, this memorandum I am reading because I would like to have the committee familiar with the fact that this same technical objection was raised by the legal department of the bureau, and was met in this way by the administrative branch of the bureau. I am quoting now from the memorandum of Major De La Mater:

> This case has been returned from the solicitor's office with memorandum of August 19, 1923, calling attention to various points in the determination of the amortization allowance to which the solicitor takes exception. There is no objection raised by the writer to anything in the solicitor's memorandum except in regard to one point.
>
> The solicitor says that in determining the value in use of facilities involved in an amortization claim it is necessary to determine such value as to the specific facilities. It is conceded that in determining amortization it would be technically exact to apply the measure of usefulness to each individual facility rather than to groups of facilities or the entire plant involving groups of varied facilities. It has been the practice or policy of the amortization section, in determining the value in use of facilities, to use as a measure a comparison of the production under normal postwar conditions to the capacity of the facilities acquired during the war period or by comparison of the man-hours under staple postwar conditions or postwar years to the man-hour capacity of the facilities acquired during the war years.
>
> The practice has been to use this measure of usefulness as applied to groups of facilities, or departments of facilities, or to the entire plant of the taxpayer, depending upon the circumstances surrounding the individual case. It is felt that in using this method of determining the useful value of the entire plant

there may result an excessive allowance of some individual facility and there may result a too small allowance on some other facility, but the result obtained by our method approximates the average of the results which would be obtained by applying the measure of usefulness to each individual facility separately.

It is desired to call attention to the impracticability of investigating the capacity and production of the man-hours used of each individual facility entering into a claim for amortization. Some of the claims presented involve thousands of items, and there have never been enough engineers, nor is there sufficient time provided by the law to enable the investigation and checking of the amortization claims in the manner called for by the solicitor's memorandum.

The method used by the amortization section results in an approximation of the exact allowance which would be found by a more detailed investigation, and results in compliance with the law which calls for a 'reasonable' allowance.

In this particular case of the J. I. Case Threshing Machine Co., a reinvestigation will be made in conformity with the solicitor's memorandum. It is desired to know, however, if this memorandum shall be taken as a precedent for the guidance of this section in all future investigations, and if it shall be taken as authority for the reopening and redetermination by the Government of cases already closed on the basis to which exception is taken by the solicitor. This would mean the appointment of more engineers and the extension of time provided by law w thin which redetermination may be made.

A copy of the solicitor's memorandum is herewith attached.

S. T. De La Mater,
Chief of Section.

The Chairman. To whom was that memorandum addressed?

Mr. Hartson. That was addressed to Mr. Cain, who was the assistant head of the special audit division, Mr. De Mater's superior.

The Chairman. Have you the answer to his query as to whether that should be adopted as a definite policy?

Mr. Hartson. I have not the answer in writing, Mr. Chairman, but I have the answer to give you.

Senator Watson. Were you the solicitor of the bureau at the time?

Mr. Hartson. I was. It is as definite as though it were in writing, namely, that it was determined from an administrative policy standpoint to proceed as they had proceeded in other cases, because of the impracticability of examining in detail each separate facility. They did not reopen the other cases which had been closed on that basis, and did not conform to the solicitor's memorandum in the settlement of future cases. I might add that that memorandum was submitted to the Unit in the summer of 1923. That was a year and a half ago.

Mr. Manson. I would like to ask you a question right at that point. Is the method indicated in that memorandum from the solicitor as being proper being followed in those cases where it is practicable to do so?

Mr. Hartson. It is, sir. I want to elaborate on that statement, Mr. Manson. Whether it is a fact or not, to follow the solicitor's memorandum is entirely a matter for the determination of those acting in an administrative capacity in the bureau. Their instructions, of course, are to follow the advice of the solicitor when it is possible to do so. I have no means of knowing whether in every case it was followed. Their instructions, however, were to do so, and I think it is a fair statement to say that it was followed where it was possible to do so.

Mr. MANSON. While we are on that point, does not that then establish two methods——

Senator ERNST. Do you want to proceed to argue this question now?

Mr. MANSON. No; I do not want to do that. I want to get at the facts, as I expect to reply to this statement.

Senator ERNST. I would rather you let Mr. Hartson proceed and finish his statement, and you may make a note of the things that you want to reply to.

Mr. MANSON. I do not want to assume anything that is not very clear. I am going to reply to this argument and that is the reason I asked those questions.

Senator ERNST. You ought to make a note of them as we go along.

Senator WATSON. And he can ask the questions after Mr. Hartson concludes.

Mr. HARTSON. Oh, yes.

A further reason that the salvage value has been omitted in calculating the value in use of amortizable facilities is the fact that if facilities are retained in use the salvage value can not be realized. It must be remembered that the formula under discussion is applied only to property to be retained in use. The presumption that it is to be retained in use precludes the possibility of its sale. The view of the bureau, therefore, is that the salvage value is included in the residual value which is assigned to the property in the taxpayer's possession.

The next chief point of criticism by counsel for the committee is of certain factors used in the application of the engineers' formula to the present case. The first objection under this heading is that an estimated production of the company for the year 1923 was used instead of the actual production. It is further said that the actual production for the year 1923 was known at the time of a conference between employees of the Income Tax Unit and representatives of the taxpayer, which was held on January 24, 1924, but that notwithstanding this knowledge the case was not reopened and the actual production figures used for the determination of amortization deduction.

That criticism was correct. That is what was done at that conference.

In explanation of this action it may be said that the chief reasons were the amount of work involved and doubt as to any benefit arising to the Government through such reopening of the case. As to the work involved, the engineer in charge of the case had been working on it for more than eight months, with assistance of several other engineers, for a part of this period, and the additional work involved in reopening the case to correct computations on the basis of actual production instead of estimated production would have been large. The claim involves 80 different subsidiaries, each of which was treated separately as to costs, and it covered 145 different plants. There were also involved about 30 general values in use, of which the value of the facilities for production of pig iron was only one. There would also have been required many additional computations to arrive at values in use for general facilities which do not directly aid in production.

As set forth before in this report, the mere statement of the corporation's claim for amortization required 30 large volumes and covered many thousands of items, and since the items are based on appropriations made by the corporation for improvements rather than on particular machinery, buildings or equipment, each item would probably have covered a number of facilities. These items were also complicated by costs incurred prior to April 1, 1917, or subsequently to November 11, 1918, which were not subject to the amortization allowance. A considerable reduction in the engineering force of the amortization section had been made in the latter part of 1923, in the interests of economical administration, and with the number of other claims pending and being pressed for determination but few engineers were available for assignment to this case.

In addition to the amount of work involved in such recomputation, there was doubt whether any benefit would be derived by the Government from such action. About $36,000,000 costs claimed by the corporation as subject to amortization had been disallowed and the company's total amortization claim had been reduced from approximately $99,000,000 to approximately $66,500,000. These disallowed costs were still subject to contention, but notwithstanding the large disallowances the corporation had indicated its willingness to abide by the engineers' reports, providing the engineers would do likewise.

Among the points of the report which were subject to contention, if the case was reopened in January, 1924, was the computation of postwar replacement costs. The bureau's computation of postwar replacement costs had been made exclusively on its published ratios, which the taxpayer contended, in many instances, were not applicable to its facilities, especially as to labor rates. This contention, doubtless, had some merit and the bureau had provided for such protests by stating in its regulations that where it could be shown that the ratios were not applicable because of local conditions that the actual facts might be proved and that they would be used in making revised computations.

Many taxpayers also contended, with good argument, that replacement costs should be based on pre-war costs rather than on postwar costs as required by bureau regulations. If this case had been reopened, the bureau's regulations would have been the subject of attack and if ultimately determined adversely to the Government, hundreds—perhaps thousands—of cases would have been upset and redeterminations would have been necessary, possibly resulting in increased allowances to the taxpayers. The corporation's estimate of the excess war cost of its war facilities for 1917 and 1918 alone (excluding all costs incurred in 1919 which were very large) is $86,793,681, or approximately $20,000,000 in excess of the bureau's proposed allowance for the three years—1917, 1918 and 1919. For the three years, 1918, 1919, and 1920, taxpayer has actually written off its books $117,512,853.74 for amortization of war facilities, while an additional amount of $29,785,000 was written off in other years. (It is not to be inferred from this statement that these amounts have been deducted on the tax returns.)

The CHAIRMAN. Were the items given consideration by the bureau in considering this?

Mr. HARTSON. No, they were not. That is merely a compilation by the company as to what should be written off as excess costs.

Senator KING. Well, those assets at that time were greatly above what they had ever been before, and the earnings were greater than they had ever been before; so why should there be such an enormous amortization allowed for governmental reasons?

Mr. HARTSON. We are not discussing the figures in the allowance by the Government of amortization to this company. I am discussing now the amount that was written off the books by the company itself, and, as I said before, it had no relation to what was actually allowed by the Government.

Senator KING. Did the Government allow them anything for amortization?

Mr. HARTSON. Oh, yes, sir. Further, as previously explained, what constitutes the normal postwar period was not, and is not, definitely established. I think that is a very important thing, Mr. Chairman.

The CHAIRMAN. Repeat it, then, please.

Mr. HARTSON. Further, as previously explained, what constitutes the normal post-war period was not, and is not, definitely established. If the case had been reopened and corrections had been made for 1923, the audit would have been correspondingly delayed, the assessment letter could not have been mailed prior to the expiration of 1924, and the taxpayer could then justly protest, if production for 1924 were less than for 1923, that 1924 should also be included in the computation.

The CHAIRMAN. Why, when the amortization period ended in the early part of 1924?

Mr. HARTSON. The limitation period expired on March 3, 1924, but that did not necessarily determine the period which shall be considered by the bureau as the normal post-war period.

At the time of the conference the actual production figures for 1923 were not fully known to the conferees. If the company's annual statement for that year had been prepared, no copy had been furnished to the bureau. The statement is dated March 18, 1924. The available figures were only those extending to October 1, 1923.

In view of the foregoing conditions—namely, the amount of work involved, the pressure of the work in the amortization section, the uncertainty of many of the factors used in the computations, and the desire to avoid protracted litigation over the disputed points which might result unfavorably to the Government—it was considered that the reopening of the case for the recomputation of the engineers' reports on the basis of actual production figures was not advisable.

The CHAIRMAN. Has there been any computation as to the different results, taking the estimated for 1923 as compared with the actual for 1923?

Mr. MANSON. Yes.

The CHAIRMAN. Will you state for the record just what they amount to?

Mr. MANSON. It will make a difference of 40 per cent in the amount of the amortization allowed.

Mr. HARTSON. Do I understand from your answer to the chairman's question that had we used the formula that we did use in applying it to these various facilities, and substituting the actual known figures for the last half of 1922 and the complete year of 1923, as to production, the result then would have been a 40 per cent reduction in the amortization allowance?

Mr. MANSON. Yes. The amortization allowance on the principal items was 20 per cent. In other words, there was a value in use of 80 per cent. If you would substitute the actual figures, you would get a value in use of 88 per cent, which would give you an amortization of 12 per cent instead of 20 per cent. The difference between 12 per cent and 20 per cent is 40 per cent. In other words, 8 per cent of 20 per cent is 40 per cent.

The CHAIRMAN. I think we understood that before.

Mr. HERING. Not on all of the items.

Mr. MANSON. This is on all of their primary products—pig iron, steel ingots, billets, blooms and slabs, and rolled and finished steel.

Mr. HARTSON. Is that all it is on?

Mr. MANSON. That is all it is on. In other words, all of their products must pass through one of these first three stages.

The CHAIRMAN. Well, counsel for the bureau in their statement have admitted that those were the major products.

Mr. HARTSON. Yes.

The CHAIRMAN. And had been discussing them.

Mr. HARTSON. And there are some 34 other products?

Mr. MANSON. Yes; but then the raw materials for all their products must at some time or other be iron, steel ingots, or billets, blooms, and slabs.

Senator KING. May I inquire for my own information; I have been attending other committees and have been unable to attend these hearings since the opening of the session, but I hope to be able to attend them hereafter punctually. Was this formula which has been applied to this company, and under which this tremendous amortization has been allowed, which has resulted in great loss to the Government, assuming that that action was not proper, applied to other steel companies and other corporations similarly situated, so far as production is concerned, as to the character of the production, rather than the quantity or volume of it?

Mr. MANSON. We have not investigated any other steel companies, and I might say here, for the benefit of the Senator, that in this particular case we are considering the fundamentals—the basic principles—upon which amortization has been allowed. We are trying at least to consider the whole question in connection with this particular case, in so far as fundamental principles are concerned, and I think that this case is being carefully presented on both sides. I know that I devoted a great deal of care to the presentation of our side of it. The bureau now has had a period of a little over a week to answer me, and I am going to ask for a couple of days to answer the bureau.

Senator ERNST. Well, the bureau is not through, and I suggest that we give them plenty of time.

Mr. HARTSON. I can answer Senator King's question, I believe.

The bureau has used this formula which has been criticized in other cases where it has been found that an exact method of ex-

amination of each separate facility was impracticable. In connection with other steel companies and other businesses—it is not confined to the steel business—in determining that amortization allowance this formula has been used.

Another criticism of counsel for the committee is that in the calculation of the Steel Corporation's capacity the years 1919 and 1920 were eliminated and the year 1921 included, with the result that there was decreased capacity for the post-war years and decreased value in use.

It is a well-known fact that the years 1919 and 1920 were abnormal, in that the impetus of the war was still felt in business and production as a rule was high. The Steel Corporation's 1920 production was considerably in excess of 1919, and if both years had been included in the average production computed by the bureau's engineer the average would have been considerably larger than that used in the engineers' reports.

The CHAIRMAN. Why did you include the minimum year of 1921 when you refused to include the maximum year of 1920?

Mr. HARTSON. Well, as is pointed out here, Senator, there had to be——

The CHAIRMAN. If you consider abnormally high years, why should you not consider abnormally low years?

Mr. HARTSON. I do not know how anybody is going to determine just which years to use. You must use consecutive years, it seems to me. If you are going to choose and sit in judgment and say that one year will be included in the calculation, your average, which is the thing you are seeking to obtain in fairness, is utterly destroyed, and you are acting arbitrarily, possibly.

The CHAIRMAN. As far as counsel are concerned, I want to say that we do not understand that they admit that the three-year average was the correct average.

Mr. HARTSON. No; I so understand.

The CHAIRMAN. But whether they do or not, it seems to me that the most reasonable years to use would be the three postwar years, which would have been 1919, 1920, and 1921, instead of jumping over the two high years of 1919 and 1920 and taking the low years of 1921 and 1922, and then the high year of 1923.

Senator KING. Is that the method that they have pursued?

Mr. HARTSON. We took the three years which were farthest removed from the effects of the war. That was done. They were 1921, 1922, and 1923.

The CHAIRMAN. When did you decide on those years?

Mr. HARTSON. I think, Senator, in 1922. That is my recollection.

The CHAIRMAN. Does Mr. Manson remember when and how?

Mr. HARTSON. The engineer can tell us definitely. Mr. Whitney, when was it decided that 1921, 1922, and 1923 should be the years to be included in this computation of the postwar years?

Mr. WHITNEY. It was shortly after Congress declared, on March 3, 1921, that the war with the German Government was over. In the latter part of 1921 Maj. S. T. De La Mater, chief of the amortization section, gave instructions that the years 1921, 1922, and 1923 should be used as the normal postwar years in computing amortization.

Mr. HARTSON. Was that done as a matter of practice in the settlement of all cases, or was that done only in the adjustment of this particular case?

Mr. WHITNEY. In all cases.

Mr. HARTSON. In other words, in the amortization section it was determined that the postwar years to be considered in arriving at the postwar computation, either for capacity or for production, should be the last three years, namely, 1921, 1922, and 1923?

Mr. WHITNEY. Yes, sir; from March 3, 1921, to March 3, 1924.

The CHAIRMAN. When Congress fixed the end of the amortization period as March 3, 1924, what time did they decide that?

Mr. HARTSON. That was in the 1921 act. You mean this date of March 3, 1924, as the end of the period of time within which the commissioner had to make a redetermination if he desired so to do, and he had to do it if some taxpayer asked him to do it?

The CHAIRMAN. Yes.

Mr. HARTSON. That is in the 1921 act, which was passed in the fall of 1921.

The CHAIRMAN. When the bureau picked this period as stated by Mr. Whitney, then they knew that they were not going to be able to close these cases in 1924, did they not?

Mr. HARTSON. They knew they did not have to close them. They knew they could not leave all of them to be closed on March 3, 1924, that they would have to proceed to close them during the intervening period.

The CHAIRMAN. That being so, how could they have used, in all cases, then, the production of 1921, 1922, and 1923?

Mr. HARTSON. They would have to estimate it, as they did in this case.

The CHAIRMAN. You may proceed with your statement.

Mr. HARTSON. I think it is clear now that the period started with the formal termination of the war by act of Congress, which was in the spring of 1921.

The Steel Corporation's 1920 production was considerably in excess of 1919, and if both years had been included in the average production computed by the bureau's engineer, the average would have been considerably larger than that used in the engineers' reports. However, this condition was not general in industry as a whole. The only years on which the bureau had any actual figures for production were those which had passed at the time the determinations were made. Most of the determinations were made prior to the availability of production figures for 1923, and a large portion of 1922 had to be estimated.

The future was unknown both to the bureau and to the business world. This fact not only affected the bureau's calculations but directly affected the market price of facilities if they were placed on the market. The bureau therefore gradually came to use the best available information, which was the years 1921, 1922, and 1923, to determine the measure of activity of a plant. Congress had followed this practice of averaging three pre-war years to establish a normal return on invested capital and that precedent probably influenced the unit to adopt a similar method to establish a normal value for amortizable facilities.

The Senators will remember that the act called for the averaging of three prewar years as determining the normal return on invested capital.

The CHAIRMAN. Of course, in that case, they had the actual figures.

Mr. HARTSON. Oh, yes; they had the actual figures.

With particular reference to the United States Steel Corporation it is explained that the bureau engineers did not have actual production figures for the last half of 1922 for many of the plants at the time their reports were being written; that, as the figures for 1922 became available as the work progressed, the actual production figures were substituted for the 1922 estimates as far as practicable, but then no production records for 1923 were available until after all the original reports had been prepared on the taxpayer's amended claim.

Relative to the adoption of 1921 capacity instead of capacity of 1919, as a basis for determining the excess capacity due to war construction, it should be noted that the capacity for each year is the capacity existing at the beginning of the year. Therefore, if capacity for 1919 were adopted, it would have excluded all the unfinished construction work and machinery which had been undertaken in 1919 and on which amortization had been allowed. Much of the expense of completing facilities begun in 1918 was incurred in 1919 and considerable additional expense was incurred even in 1920. The capacities adopted by the engineers' reports were those existing at the beginning of 1921, not at its close and it was intended to include only those capacities which existed at the close of 1918, plus those added by the completion of the amortizable facilities. From Chart D, as prepared by the committee's engineers, it appears that there was only a slight difference in actual capacities existing between the close of 1919 and the beginning of 1921, and not a great difference between those existing at the beginning of 1919 and the beginning of 1921.

The final criticism made by counsel for the committee is that the railroad subsidiaries of the United States Steel Corporation, which are common carriers, are not entitled under the law to the amortization deduction. On this point, there existed, at the time the adjustment in question was made, a difference of opinion in the bureau. As the case has not been closed, further consideration will be given to this point.

That further consideration will be a reference to the solicitor's office for an opinion.

Now, Chart D, Mr. Manson, is already in the record.

Mr. MANSON. What is that, the pig iron chart?

Mr. HARTSON. The pig iron chart.

Mr. MANSON. Yes.

Mr. HARTSON. Exhibit A, I think, is not in the record.

Mr. MANSON. What is that?

Mr. HARTSON. That is a chart showing some 34 different facilities, on which amortization was claimed, and giving the several years, and the number of those facilities in use during those years.

Mr. MANSON. That is not in the record, is it?

Mr. HARTSON. No, it is not, and I would like to have it go in.

The CHAIRMAN. You may put it in as an Exhibit, but not to be made a part of the record.

Mr. HARTSON. It is an exhibit to this statement which I have just made.

The CHAIRMAN. Yes.

Mr. HARTSON. It was put in for the purpose of answering the statement of counsel.

Mr. MANSON. Have you a copy of that?

Mr. HARTSON. I have. It was put in for the purpose of answering the statement of counsel that the policy of the company had been to constantly increase production during those years, and this statement is prepared to show that, with regard to some of the principal facilities, there was a decrease in 1923 as compared with 1922, and that most of the increase occurred during the war and not subsequent to the war.

The CHAIRMAN. Is that your complete answer, Mr. Hartson, to the charges and criticisms of the committee's counsel?

Mr. HARTSON. That is the complete answer that I desire to make now. I have not anything further at this time, but it may occur to me subsequently, from time to time, to make a statement.

The CHAIRMAN. Mr. Manson, I think it is the desire of the committee to have you go over this statement of counsel for the bureau and make any criticisms of it or reply to it that you desire to make, in view of the fact that it was not the desire of some of the Senators to have the counsel for the bureau interrupted during the making of his statement.

Mr. MANSON. I wish to say this in that connection: I think it is clear to the committee by this time that when we have threshed out the steel company case we will have threshed out the fundamental principles upon which amortization is being allowed, and I believe that much good has resulted from the bureau's taking the time that they have to consider the objections which have been raised by counsel for the committee, to answer them completely and to consider them carefully.

I would like to have an opportunity to read the record, and I will be ready, if I get this report to-morrow morning, to make such answer as I desire to make on Monday, provided I am not required to present some other case to-morrow. I believe it is of considerable advantage to have this case altogether in the record.

Senator ERNST. So do I.

Mr. MANSON. And it is of great advantage to counsel to be permitted to carry this case in his mind until it is finished. The committee no doubt will appreciate it is highly technical, and to get into another case means dismissing this one from your mind for the time being.

The CHAIRMAN. May I ask counsel what case you have prepared for presentation to the committee as your next case?

Mr. MANSON. The Climax Fire Brick Co. case. That is a depletion case, is it not?

Mr. PARKER. Yes, sir.

The CHAIRMAN. The committee will adjourn at this time until 10.30 o'clock on Monday morning next.

(Whereupon, at 12.05 p. m., the committee adjourned until Monday, January 5, 1925, at 10.30 o'clock a. m.)

INVESTIGATION OF THE BUREAU OF INTERNAL REVENUE

MONDAY, JANUARY 5, 1925

UNITED STATES SENATE,
SELECT COMMITTEE TO INVESTIGATE THE
BUREAU OF INTERNAL REVENUE,
Washington, D. C.

The committee met at 10.30 o'clock a. m., pursuant to adjournment of January 2, 1925.

Present: Senators Couzens (presiding), Watson, Jones of New Mexico, and King.

Present also: L. C. Manson, Esq., of counsel, for the committee.

Present on behalf of the Bureau of Internal Revenue: Mr. C. R. Nash, assistant to the Commissioner of Internal Revenue; Mr. Nelson T. Hartson, solicitor, Bureau of Internal Revenue; and Mr. S. M. Greenidge, head engineering division, Bureau of Internal Revenue.

The CHAIRMAN. Senator Ernst requests that it be noted in the record that his reason for not being present at this morning's session is the fact that he is attending a meeting of the Judiciary Committee.

You may proceed, Mr. Manson, when you are ready.

Mr. MANSON. This is a continuation of the United States Steel Corporation matter.

The position taken by the bureau in its answer to my opening statement raises no issue as to any really material fact. The soundness of our position as to matters of principle is also conceded. The bureau takes the position that, while our objections to the allowance of this claim are sound in theory, yet they are merely technical. It takes the position that, while the practice which we claim should be followed in the determination of amortization is right in principle, yet it is impractical from an administrative viewpoint. The bureau attempts to justify the use of a formula, which it concedes to be unsound in principle, and to defend the use of estimated factors, which it concedes are wrong, upon the ground that to have followed sound principles, and to have recomputed its allowance, when the actual facts showed its estimates to have been wrong, would have involved too much expense. They tell us that one engineer was employed on this case for eight months and that three other engineers were employed from time to time. They take the position that to have incurred the additional expense necessary to determine the proper allowance upon this claim, in accordance with principles which they concede to be sound, and to have used the factors which

they concede they knew to be right, instead of those which they concede they knew to be wrong, would have involved unwarranted expense.

The amount of this claim, that is, the claim set up in the consolidated schedule, which is not the entire claim of the subsidiaries of the United States Steel Corporation, but that portion of the claim which we have considered is $83,482,961.18.

The amount allowed upon the consolidated claim, not the entire claim, but the consolidated claim, is $55,063,312.60.

We contend that the proper allowance does not exceed $27,136,987.89.

Senator WATSON. How much?

Mr. MANSON. $27,136,987.89; that the overallowance upon the consolidated claim alone is $27,929,014.01, and that the difference in tax upon the consolidated claim alone is $21,438,513.69.

In addition to that claim there has been approximately $11,000,000 allowed to the United States Steel Corporation making a total allowance on their amortization claim of $66,000,000.

I call the committee's attention to those figures in connection with the position taken by the bureau, that to have determined this claim in accordance with sound principles, and that to have redetermined this claim, even in accordance with the principles upon which they allowed it, after they found that their figures were wrong, would have involved too much expense.

The amount of amortization allowed the United States Steel Corporation is about 12 per cent of the total amount allowed to all taxpayers to date, yet I feel safe in asserting that the bureau expense of examining this claim is less than 3 per cent of the amount expended on amortization claims.

Our engineers estimate that it cost the United States Steel Corporation at least $250,000 to prepare and present its claim, and that the bureau cost of examination was less than $25,000. It would appear that the cost of typing, printing, and binding this claim was at least as much as was expended to protect the interests of the Government, in connection therewith. If the Government had expended 10 times the amount it did, to determine amortization in accordance with sound principles, the cost would have been less than 1 per cent of what we contend it lost in taxes through improper amortization allowances.

In connection with the difference between the estimated production for 1922 and 1923, and the actual production for those years, permit me to call the committee's attention to the fact that it makes a difference of 40 per cent in the amount of amortization allowed. That difference of 40 per cent on the $21,000,000 alone is over $8,000,000; and yet they say that the reason they did not recompute that allowance, when they found that their estimates did not conform to the figures, is because it would involve too much work and too much expense.

In that connection I would call attention to the fact that when I made the statement the other day that his difference would amount to 40 per cent of the amount allowed, it was stated that I was referring to pig iron alone. I am not referring to pig iron alone. I base all of my calculations in this case, as shown by Exhibit D and Exhibit C, upon four elements—the pig iron production, the

steel ingot production, and the production of billets, blooms and slabs, being the primary products of this corporation, and the production of rolled and finished steel. The proportions run alike right along all the way through the years. They are bound to.

Take, for instance, the Ford Motor Co. The amount of steel that the Ford Motor Co. will consume as a raw material will be almost an absolute index of the number of cars that they will produce. The amount of raw materials, that is, half-finished products, like pig iron, billets, blooms and slabs, and steel ingots, will be an index of the finished products they will produce. It is not necessary to make an examination of every item that has entered into that cost when they conceded here that the same formula was followed, and the same methods were used in determining amortization allowance upon each different class of facility, which is included in this claim.

For that reason I would say that when the difference in the case of pig iron, in the case of steel ingots, in the case of billets, blooms, and slabs, and in the case of rolled and finished steel, showed a difference of 40 per cent when you substitute actual production figures for the estimate upon which this allowance was based, I say that that 40 per cent will run all the way through all the facilities of the Steel Corporation, so far as they cut any material figure in this case.

Mr. HARTSON. Mr. Manson, on this same line, the use of such an index as to these several facilities that you have called specific attention to is substantially the same principle that the bureau has used in adopting a formula. We do not examine, as we indicated, each facility, and neither have you, in arriving at this 40 per cent.

Mr. MANSON. No; I quite agree with you——

Mr. HARTSON. The principle is much the same.

Mr. MANSON. I quite agree with you that you can apply a formula to this case. I do not agree, however, that you have applied a formula to this case which brings a reliable result.

Mr. HARTSON. Do I understand, then, Mr. Manson, that you do concede that in determining the amortization allowance to a corporation such as the United States Steel Corporation a formula is necessary?

Mr. MANSON. Well, of course, it all depends upon what the formula is that you use. Any rule whereby you use figures made for the purpose of getting a result could be called a formula.

Senator KING. Would not a too strict adherence to any formula leave opportunities to unscrupulous taxpayers to avoid the formula?

Mr. MANSON. Oh, yes. I can see instances where this particular formula could be used to work an injustice on the taxpayer. I do not concede that it could happen very often. It could only happen in a case where you had an entire plant that was brand new, every piece of equipment being of the same state of efficiency, and every piece of equipment being of the same age. In a case of that sort the application of any such formula would work an injustice to the taxpayer; but in the case of the United States Steel Corporation, which is an organization of constituent companies, many of which were in existence years before the Steel Corporation was organized, the equipment, taken as a whole, of the Steel Corporation consists of facilities in varying stages of efficiency and in varying stages of wear, and that this formula, as applied in this case, is absolutely impractical, so far as the Government is concerned.

I have repeatedly stated that I have been informed and believe that the bureau has followed no uniform practice in determining amortization. I believe Senator Watson has asked me that question. The concessions of the bureau confirm those statements. Mr. Hartson stated that, where practical, the rule laid down in the published ruling of the solicitor is followed. This rule requires the inspection of the facility upon which amortization is claimed and the determination of the usefulness of that facility in the taxpayer's business, regardless of the other facilities. That is the rule for the determination of amortization laid down in the only published ruling there is in existence on this subject.

Mr. HARTSON. Mr. Manson, do you concede the correctness of that ruling?

Mr. MANSON. I do; absolutely. There is no doubt about that at all. And, furthermore, I wish to say this, that while Mr. Hartson read the statement of the bureau in answer to my statement into the record, I have too much respect for Hartson's judgment and too much respect for his ability as a lawyer to believe that he either prepared that statement or that he gave it his unqualified indorsement.

Senator KING. As to the opinion to which you have referred and which you say is correct, do you mean to say it is correct legally, based upon a proper interpretation of the statute, or that it is correct in that he applied it to a just method and a just formula for reaching the tax to be paid by the taxpayer in these cases?

Mr. MANSON. I would say it is correct from both standpoints. I am going to discuss that in detail a little later on.

Mr. Hartson stated that where it is practical, the rule laid down in the published ruling of the solicitor is followed, but that where, in the judgment of the engineers, it is not practical to follow this published ruling, the rule followed in the Berwind-White case and in the United States Steel Corporation case is followed. This latter rule has never been published and the taxpayers generally know nothing about it. It is necessary to have inside information to even know there is such a rule to be applied under any circumstances.

Thus we have two standards for the measurement of these deductions and consequently for the measurement of liability to tax. This alone is sufficient to condemn this system as repugnant to the fundamental principle that taxation must be uniform among those similarly situated. But this is not the most serious objection. One of these standards, and the one under which the more liberal allowance can be made to most taxpayers, is still secluded from all except the initiated by the veil of secrecy with which the law enshrouds everything connected with the administration of this law.

The published standard is the one which it is found impractical to apply to the complicated involved claim consisting of many items. Thus we must infer that the line of demarkation in the application of these standards falls between the large claims and the small claims.

I am expressing no opinion on the question of secrecy of income tax returns and claims. I do believe, however, that were the administration of this feature of the law open to public scrutiny, public opinion would enforce the same uniformity as is observed by the courts in the interpretation and application of the common law. It

is clear to me that to secure a just and equitable system of taxation, Congress must either more clearly and minutely prescribe what is now left to administrative discretion or abolish the secrecy which now stands between those administering this law and public opinion.

I have stated that the standard or practice applied in the Berwind-White case and in this case, permits more liberal allowances to most taxpayers than would be allowed were the published ruling followed. I can conceive of cases where this unsound rule would be as unjust to a taxpayer as it is to the Government in this case. Under this formula, the useful value of facilities, upon which amortization is claimed, is the percentage of the total capacity of all facilities for use which is actually in use during a particular period.

It is conceded that this formula ignores the useful life of facilities in determining their value in use. It is also conceded that it ignores the comparative efficiency of different facilities which may be used for the same purpose.

In the Berwind-White case we had two power systems, one of which went into operation in 1920 and the other of which was retired from use when the operation of the new one commenced. The efficiency of the new plant was so much greater than that of the old, that the company installed an additional unit after the war and discarded the old plant. Yet, by ignoring this element of comparative efficiency, and by averaging the capacity of the old plant with the capacity of the war plant, the plant which was hovering at the edge of the scrap pile, and which could not be economically operated, was raised to approximatey the value in use of the new plant, and the new plant, at a time when it was the only plant in operation, and when it had a connected loan of nearly twice its capacity and a peak load with 5 per cent of its capacity, was reduced to a value in use of 52.6 per cent. Although the ignoring of these essential factors of comparative life and efficiency resulted in an amortization allowance of $385,000 in the Berwind-White case, the bureau claims that this is a mere technicality.

Mr. Hartson contends with much force that there has been but a slight increase in the capacity of the United States Steel Corporation since the close of the war period. He introduced Table A for the purpose of substantiating that fact. Yet it is undisputed that during the period, 1919 to 1923, inclusive, the Steel Corporation spent $167,560,994 for plant improvements exclusive of charges to depreciation reserve, or about $4,000,000 more than was spent for that purpose during the war years, 1916 to 1918, inclusive.

I have never claimed that this money was spent solely for the purpose of increasing capacity. In my opening statement of this case, I took the position that the bulk of this money was spent to replace worn out, obsolete, and inefficient equipment. I called attention to the fact, not only from 1918 to 1923 covered by Mr. Hartson's Exhibit A, but from 1915 to 1923 as shown by my Exhibit I there had been but slight change in the number of major units constituting the steel company's facilities. The only difference between Mr. Hartson's Exhibit A and my Exhibit I is the fact that my exhibit goes back three years farther than does Mr. Hartson's. I made the point in my opening statement that the great increase in capacity and in operating efficiency had been effected by the replacement of

smaller units by larger units and by units which could be operated with greater speed, greater economy, and greater efficiency.

Senator KING. Have not some of those units been charged off under the head of depreciation?

Mr. MANSON. Yes; but this $167,000,000 is the amount that has been spent since the war period for plant improvements, exclusive of depreciation charges. I do not know what these depreciation charges amount to, but they certainly amount to a very substantial item, and, if added to this amount, I dare say they would come near to doubling it.

I call attention to that fact for the purpose of showing that the Steel Corporation, in its operation and under its policy, has spent at least $167,000,000 to replace worn-out equipment, to replace inefficient equipment, to do the very thing which the Bureau in this case contends is a "mere technicality."

In other words, I have objected to this formula for the reason that it ignores the fact that a new blast furnace, with twenty years of life ahead of it, and which will produce 50,000 tons of iron a year, is certainly worth twenty times as much to the owner as an old one that has reached the end of its usefulness and which can not produce more than one year's capacity before it must be scrapped; and yet, under this formula, the new blast furnace that was built during the war period, was averaged in with the old. The capacity of a new blast furnace, with twenty years of life ahead of it, is averaged in with the capacity of an old one, which may be torn down next year, and that is included in the $167,000,000 which have been spent for replacement, and is given no more credit, from the standpoint of value in use to the owner, than a blast furnace out of which he can only get one year's use.

All of the facilities upon which amortization has been allowed were new at the close of the war period. To justify using 1921 capacity as a basis for determining post war capacity, the Bureau maintains that it was not until the beginning of 1921 that all of the war facilities came into use. Notwithstanding this fact, they average the capacity of these new facilities, which we must assume were the last word in operating efficiency, and which had their entire useful life ahead of them, with the capacity of the obsolete and worn-out equipment for the replacement of which the steel corporation has spent the greater portion of $167,560,994 plus depreciation reserve charges since the war.

Are we to be expected to assume that this admittedly unsound formula, in the hands of the bureau engineers, is a better means of determining the needs and requirements of the Steel Corporation than the judgment of its own management, or that the management of this corporation is expending hundreds of millions of dollars for replacements which have no useful value to the company? Is it not manifest that, had these facilities not been acquired during the war period, it would have been necessary for the corporation to have spent the amount of their postwar cost of replacement, in additions to what it has spent, to acquire the capacity and efficiency they now have? And do not the acts of the officers of the United States Steel Corporation, in spending that $167,000,000 for the purpose of maintaining the efficiency and the capacity which

they now have, estop them from denying that they need the capacity that they have today, that they need the capacity which was created during the war and which has since been retained?

Yet the bureau waives this all aside as a mere technicality.

In answer to my point that this formula gives no consideration to the salvage value of amortized property retained in use, the solicitor says that this can not be considered; first, because it is not for sale, and, second, because it is included in the residual value carried by the taxpayer.

In my opening statement on this matter, I stated the formula. I stated how they arrived at amortization, and I remember that it was admitted on the record at that time that I had stated it correctly. We have discussed it at every hearing we have had in this case, and up to the present time no one has ever taken exception to my statement of it.

When the value in use is once determined, that value in use was applied—we will say, the 80 per cent which was applied in most cases there—to the postwar cost of reproduction, and 80 per cent of the postwar cost of reproduction was accepted by the residual value.

I called attention to the fact that in applying it to the postwar cost of reproduction the 20 per cent of the salvage value is included in amortization, the same as 80 per cent of the salvage value is included in the residual value; and as an example of that, I take this case:

Assume that during the war period the taxpayer purchased 100 cars, the postwar cost of replacement of which is $1,000 apiece. That is $100,000. The taxpayer finds he has use for but 80 cars, although he keeps the entire hundred. There you have an 80 per cent value in use. The value in use, according to this formula, is 80 per cent, and the amortization is 20 per cent, or $20,000, and the residual value is $80,000.

Now, after he gets his amortization, his $20,000, and his 80 cars that he needs, they give him just exactly what he pays for them, less the difference between the war cost and the cost of reproduction. He then concludes to sell those 20 cars. If he gets $500 apiece for them, he gets $10,000. Now, what has he got? He has $30,000 for the 20 cars he has disposed of. The 80 cars that he needs in his business stand him $70,000.

I have asserted every time that we had this case under consideration that the amortization percentage was not applied to the cost of reproduction during the postwar period, less salvage. Anyone who knows anything about a steel plant and anyone who will examine the items upon which depreciation is claimed in this case, will necessarily draw the conclusion that the salvage value of a large part of this property would be very high. There is an enormous number of railroad locomotives included in here. There is an enormous number of freight cars. There are such things as ships. The salvage value, or just the scrap value alone, of anything like a roll mill, or of large shears, which are used for cutting steel—the scrap value alone on that class of material would run into enormous figures; and out of this $66,000,000 amortization that has been allowed, I feel safe in assuming that if you reduced it all to scrap value, the scrap value alone would run to several million dollars.

I have asserted that objection here, which is admitted, but is waived aside as a mere technicality, although it would make several millions of dollars difference in the amount of the tax the steel corporation would pay.

Urging expense as the justification for failing to consider these material and necessary factors, would almost lead one to believe that the formula is incorporated in the very law itself and must be used right or wrong. Such, however, is not the case. The law provides that there shall be allowed "a reasonable deduction for the amortization of such part of the cost of such facilities or vessels as has been borne by the taxpayer."

If there is any doubt as to what this provision of the law means, we have a simple and elementary rule of statutory construction to guide us. This rule is that in construing a statute we shall consider the whole statute and the legislative purpose as manifested by all of its provisions.

The sole purpose of the entire law—and that is true whether you take the 1924 act, the 1921 act, or the 1916 act, or go way back to the 1913 act—the sole purpose of the entire tax law is to tax net incomes. Every provision of the act providing for deductions is clearly intended to permit the deduction of expenses, capital consumed in the product sold, and losses sustained, so that the taxable net income may reflect the true net income of the taxpayer. Congress recognized that during the war the producers of articles useful for war purposes would make capital expenditures for facilities which would not be of use for postwar purposes.

The purpose of the amortization provision is to permit the deduction of such losses. It is to make the taxable net income conform to the true net income of the taxpayer. This provision was not inserted in the law to grant a special privilege to a class of taxpayers as a reward for producing war materials. The sole purpose of this provision was to make the taxable net income of the taxpayer conform to its true net income by permitting the deduction of these losses.

Therefore to be entitled to a deduction for amortization the taxpayer must show that he has sustained a loss by reason of having acquired facilities during the war, and the amortization to which he is entitled is necessarily limited to the loss he has sustained.

Can it be maintained with any show of reason that my investment in equipment which may not be necessary during a slack year like 1921, but which I used in 1919 and 1920 and again in 1922 and 1923, represents a loss or that my capacity over that required for average production that margin required to meet the peaks of demand, when prices are high and profits are greatest, represents a loss? Can it be said that because I have a machine so obsolete and inefficient that I can not afford to operate it, except in case of breakdown or when prices are high, my investment in war equipment, used by me every day to its full capacity, represents a partial loss? Can it be said that a blast furnace running every day to its full capacity is a partial loss because I have an idle one which has reached the point where it must be torn down and rebuilt?

That is exactly the outcome of the application of this formula, when you leave out of consideration these essential elements which the bureau waves aside as mere technicalities.

The rule laid down by the solicitor is sound. It recognizes that to determine amortization the usefulness of the particular facility upon which amortization is claimed must be determined. I submit that there is no way to determine whether an investment represents a loss other than to determine the usefulness of that particular thing, regardless of anything else. The bureau maintains that this involves too great an expense. I submit that the burden is upon the taxpayer claiming a deduction to prove to the satisfaction of the bureau that he is entitled to it. I submit, further, that it would not have cost one cent more to make an inspection of the facility upon which amortization is claimed and by observation determine whether they are being used or whether they are useful than it would be to make that inspection and then go through all of the calculations that were necessary in order to make out amortization in accordance with an unsound formula.

I stated in my opening statement, and I repeat, that such an examination actually was made by Fischer and Van Schaick, and they found it all in 100 per cent use. Fischer and Van Schaick were the first engineers for the bureau who examined this property.

Mr. Hartson admits these engineers found the property to be in 100 per cent use.

I made the statement in my opening statement that they segregated the property. Mr. Hartson denies that. I do not know whether the issue raised there is one over the definition of the word "segregation" or whether it is more material than that, but what I meant by segregating the property, was not physically separating it; not carrying the roller mills and blast furnaces out in the yard and stacking them up in separate piles. What I meant was mentally segregating it. Here is a blast furnace, that, during the war, was in operation. Therefore that blast furnace is of 100 per cent value to the owner, and no amortization should be allowed upon it.

If there is still any dispute on that point, I think the report of these engineers will settle it. I have read it; I know what is in it, and I trust it will not be necessary for me to read it into this record to settle this issue, as to whether or not these engineers determined the use of each particular facility by mentally segregating them and by segregating them on paper.

Mr. HARTSON. I think, Mr. Manson, I can clear up any further controversy about that and eliminate any further discussion on that point.

As I stated in the statement I made the other day, the report of those engineers was made on the basis of the facilities being 100 per cent in use. I, therefore, adopted the position, in the statement that was made, that it was not necessary for the engineers making that report to make such a segregation as you are contending, as I understand you, should have been made of all of these different facilities.

Mr. MANSON. No; I contend only for the ruling that was published. Although that ruling was not published until four years afterwards, I contend that is the kind of examination that was contemplated by that published ruling.

Senator WATSON. Are you sure that they actually made an inspection of every facility of the whole United States Steel Corporation?

Mr. MANSON. They did.

Senator WATSON. And reported separately on it?

Mr. MANSON. Of course, they did not take a wheelbarrow and show how that particular wheelbarrow was used. I am just stating this to give you an idea of how they went at the job.

Senator WATSON. Yes.

The CHAIRMAN. I do not quite understand this on the question of segregation, and I would like to clear that up at this point, as to just what is the difference between Mr. Manson and Mr. Hartson in connection with this matter of segregation. Did the engineers segregate the amortization on one piece of property from the others, or did they not?

Mr. HARTSON. I think it was a difference of degree, Senator. There was some sort of segregation made; you will find from their reports that they have certain assets, facilities, carried down, and items, but there was not anything like the detailed and minute examination that an exact and technical interpretation of these provisions would and should require; so the difference is really one of degree. They approximate them in many cases, but not to the same degree as was done in the application of this formula.

The CHAIRMAN. In other words, you and Mr. Manson are not very far apart on the segregation?

Mr. HARTSON. We are not very far apart. It is really one of degree. I think, as a matter of fact, Mr. Manson, that the point is not of very great importance, relatively speaking, in considering the entire plant.

The CHAIRMAN. I think the question of segregation is of great importance, myself, because, if you are going to average old facilities with new facilities, or pre-war facilities with war facilities or post-war facilities, then the queston of whether you segregate these facilities in use is a very important one, because, in my judgment, the degree to which this property is in use is more applicable to the actual property to be amortized than it is to the pre-war. the old stuff which has been averaged with the new.

Mr. HARTSON. On that point, I think you have the situation well in mind, but in order that there may be no misapprehension about what this formula is which is involved, I wish to say that they do not apply it to facilities other than those facilities which were put in during the war. It is a percentage calculation applied to certain costs incurred during the war. There is that definite segregation in the use of the formula which is beyond any question made.

The CHAIRMAN. Not when you use the analytical system, certainly, because you could not take the Berwind-White case and say that this old dilapidated and worn out plant should be given any value in use so as to reduce the percentage in use of the new amortizable property.

Mr. HARTSON. I think, Senator, assuming the facts to be these in the Berwind-White case—that we are now discussing principles rather than facts——

The CHAIRMAN. Yes.

Mr. HARTSON. That there was an old plant susceptible of use after the war and a new plant built during the war. Then, to determine the useful value of the war facility, you consider their en-

tire capacity after the war, which includes the new facility and the old facility.

The CHAIRMAN. Yes; but why include the pre-war facility? The testimony given in the Berwind-White case shows that it was worn out.

Mr. HARTSON. Now, we are discussing the fact again.

The CHAIRMAN. Yes; but you do give it the same value, practically; whether the plant was worn out or not, you give it the same productive value as you do the new plant when you arrive at the average.

Mr. HARTSON. In the use of this formula that is true, Senator.

The CHAIRMAN. Yes.

Mr. HARTSON. Of course, as was argued the other day, it works both ways, and you not only give to an old facility, as Mr. Manson is stressing now, usefulness beyond its actual usefulness in applying this formula, but you do the reverse—something that Mr. Manson does not emphasize—you also give a reduced value in use to some brand new facility. In using the formula on a business the size of the United States Steel Corporation, it is averaged up, and no doubts works for and against, and Mr. Manson has admitted here that this formula can be used to a point where it can work a hardship on the taxpayer.

Mr. MANSON. Only when the equipment is all new.

Mr. HARTSON. In the case of these tremendous concerns some were in use during the war and some were erected before the war, and they took a formula for the pre-war experience and applied it to the postwar conditions, applied it to the costs which were incurred during the war, and to that extent I would like to have you bear in mind that there is a complete segregation. We are not considering facilities that were acquired before the war or since the war. We are using this on facilities acquired during the war period.

Mr. MANSON. On this point, I stated that these men segregated the facilities; that is, these first engineers who made this inspection of these facilities segregated the facilities upon which amortization was claimed and determined the use made of the facilities. In Mr. Hartson's reply he admitted that they determined that they were in 100 per cent use, but he denied they made the segregation. My own opinion is that the difference between us is one of the definition of the word "segregate," and I have just explained what I meant when I used that term. I do not know whether that is still in issue between us or not.

Senator WATSON. Let me see if I understand about this formula. As I understand it, the object of the formula was to strike an average. If you do not strike an average you do not need a formula. That is to say—and if I am wrong I want to be set right about it—if you had a force large enough to permit you to go back and make an examination of every single facility of the United States Steel Corporation, then you would not need a formula; it would then be a question of absolute fact.

Mr. MANSON. You have to do that anyway, because in using this formula you have to determine whether the facility was a facility for production of articles used for the war. In other words, there is no engineering examination that would be required if you followed

the rule laid down by the solicitor for the purpose of determining amortization; that is not already required, even if they resort to the other method.

Senator JONES of New Mexico. Why is not the statement made by Mr. Manson here absolutely conclusive on this question? Is it not upon the taxpayer to satisfy the bureau as to the things on which he wants amortization?

Mr. MANSON. Oh, yes; they have done it in this case. There are 30 volumes, 20,000 pages of it.

The CHAIRMAN. In other words, it is up to them to prove their claim?

Senator JONES of New Mexico. Yes.

Mr. MANSON. Yes. If there is any doubt about it, the fact is that these first engineers made an examination that was sufficient to show that if this property was 100 per cent in use at the time of this examination, and it was adapted to the business, the normal peacetime business of the corporation—if there is any dispute about that I want to go into this report far enough to settle that dispute. I do not want the question left in issue between myself and the bureau here.

Senator WATSON. Let me ask you this question right along the line of Senator Jones's question. Did or did not this taxpayer attempt to prove its claim?

Mr. MANSON. Oh, yes.

Senator WATSON. You say there are 30 volumes?

Mr. MANSON. Yes.

Senator WATSON. In which they attempted to prove the claim?

Mr. MANSON. Yes; what they did was this, Senator——

Senator WATSON. Yes; I would like to know.

Mr. MANSON. I will explain that here.

In the first place, the taxpayer presented a claim in 1918, I think it was, which was not set up in a proper way. In other words, they claimed amortization upon the basis of prewar costs—the difference between the prewar costs and the war costs, instead of on the postwar costs and war costs.

The CHAIRMAN. Do you mean to say that they presented a claim in 1918?

Mr. MANSON. No; not as far back as that, but it was before 1920.

The question whether amortization shall be allowed for the difference between postwar cost and war cost is not one that is involved in this discussion here. We concede that they are entitled to it; so that is not in dispute. That is involved in the figures to which we take exception, but all of the figures to which we take exception arise out of the matter of the usefulness of the facilities which have been retained in use. We do not question the allowances made for special facilities acquired for war work, and which were not useful to them for postwar operations. We do not question the allowances on those facilities.

Senator JONES of New Mexico. There were such items, were there?

Mr. MANSON. Oh, yes; they had a howitzer-gun plant at Gary, for instance, and they had shipyards. We do not question the allowances on those; but what I am trying to show is that these engineers made an examination for the purpose of determining the usefulness

of these particular facilities for peace time purposes. It does not require a particularly careful, close examination of a blast furnace which you see in operation, and which represents a large investment, to determine that that blast furnace is the same kind of a blast furnace that is used for the purpose of reducing ores both in time of war and in time of peace. It does not require a particularly careful engineering examination of a power plant to go into it and see it in operation, to examine the records of that power plant, to examine its log, to find out that it has been in operation ever since it has been constructed, and to determine the capacity of that and to determine the connected load, and to determine the peak load. Those are all matters that can be readily determined by an examination of the log of that power plant.

Senator KING. It was in just as serviceable condition after the war as it was during and before the war?

Mr. MANSON. Yes.

Senator KING. I should say it would not be difficult to determine that fact.

Mr. MANSON. Now, for instance——

Senator WATSON. You had started to show what they had actually done.

Mr. MANSON. Oh, yes. They set up their claim. These two engineers, Van Schaick and Fischer, made a field examination of the property. They reported as to the usefulness of the property. They found all the property upon which amortization has been allowed, to which we take exception——

Senator WATSON. Now, that was after they had made their claims?

Mr. MANSON. That was after they had made their claim.

Senator WATSON. They went out, then, on that?

Mr. MANSON. They went out on that claim.

The CHAIRMAN. In other words, there would be no necessity for an examination if they did not make a claim?

Senator WATSON. Precisely; that is what I wanted to get at.

Mr. MANSON. They made the claim, first, that it was not set up on a proper basis, that it was set up on the basis of the pre-war cost instead of the postwar cost. It was also turned down for the reason that the facilities were found to be in 100 per cent use.

My point is this, that I do not care how many other reasons the bureau had for turning that claim down, the fact stands here that the facilities were found to be in 100 per cent use. That reason was alone sufficient. They might have had a dozen other reasons, but that reason alone is enough, as far as this discussion is concerned, and if there is any doubt as to the character of the examination that they made here, I can read this whole report, or as much of it as may be necessary to establish the fact. I am going to state the fact here——

Senator WATSON. As I understand it, they filed their claim for amortization, and these two engineers went out and made their report, and as a part of that report they stated that these facilities were 100 per cent in operation?

Mr. MANSON. Yes.

Senator WATSON. Then the claim for amortization was rejected, it was turned down on that report, was it?

Mr. MANSON. It was turned down on that ground, and also upon the ground that it was not based——

Senator WATSON. After the claim was absolutely rejected, then what happened?

Mr. MANSON. Then they filed another claim.

Senator WATSON. Yes.

Mr. MANSON. I noticed in the papers the other day that Judge Gary, the chairman of the steel corporation, claimed that in presenting their second claim they presented it in identically the way the Unit asked for it; in other words, that they made up this second claim after having been turned down on the first one, in accordance with instructions received from the Unit.

Senator WATSON. Can you tell us now what was the difference between the two?

Mr. MANSON. Yes.

Senator WATSON. I wish you would do so, briefly.

Mr. MANSON. There are three general considerations in this matter. One is whether or not the facility has been entirely discarded, as in the case of the gun plant or shipyard.

Senator WATSON. Yes.

Mr. MANSON. The second one is the difference between the postwar cost and the actual cost during the war. The third one is the extent of the usefulness of the facility that is still retained in use. Then, there is also the matter of when expenditures were made. Now, many of these, or a very large proportion—I can not say exactly how much, but a very large proportion, of the expenditures on which amortization has been allowed, were made for plant extensions that were started back in 1915 or 1916, and were not completed in 1917. It was necessary for the claim to show the distinction between those things, and, all told, the claim covers some thirty volumes, large bound volumes, and includes approximately 20,000 pages.

Senator WATSON. That was the second claim?

Mr. MANSON. That is the second claim.

Senator WATSON. What was the difference in point of time between those two claims, Mr. Manson?

Mr. MANSON. I do not know when the second claim was filed.

Senator WATSON. Approximately?

Mr. MANSON. About two years, I should say.

Senator WATSON. Two years?

Mr. MANSON. That is Mr. Parker's statement.

Mr. GREENIDGE. A little over two years.

Senator WATSON. Of course, after this report had been rejected, they were compelled then to reform their line of attack?

Mr. MANSON. Yes.

Senator WATSON. What was the difference between the first claim and the second claim?

Mr. MANSON. I did not go into that in great detail, because I have never seen the first claim, but I understand from the reports that I have examined that the difference was this, that in the first claim they based their computations upon the pre-war cost, as compared with the war costs, and that element of the claim which existed in connection with each item was set up upon that basis. In the second claim, that element of the claim was set up as the

bureau required, the difference between the postwar cost and the war cost.

Senator WATSON. Yes.

Mr. MANSON. That is substantially the difference. Outside of that, I do not know of any other difference.

Senator WATSON. Did they attempt in this answer to set up and describe the usefulness of each particular facility?

Mr. MANSON. The first engineers did.

Senator WATSON. They did?

Mr. MANSON. Yes; the first engineers.

The CHAIRMAN. You mean the engineers for the Steel Corporation?

Mr. MANSON. No. The Steel Corporation's second claim. I do not know about the first claim, but in the Steel Corporation's second claim, the use was set up in identically the way the bureau has allowed it. The bureau has followed the Steel Corporation's method of computing their allowances. They have checked it, but the theory upon which the allowance should be based is stated in the Steel Corporation's claim. Whether that theory was worked out by the accountants—I think it was Ernst & Ernst——

Mr. PARKER. No.

Mr. MANSON. No; they did it themselves.

Senator WATSON. Will you tell us what that theory was?

Mr. MANSON. That theory was this very formula that we have been discussing. I think I can briefly restate it.

To arrive at the value in the use for postwar purposes, they first determined the margin, the difference between the average annual production before the war and the capacity for each year before the war. The steel corporation, in the claim, specifically acknowledges that it requires more capacity than its production. In other words, the tonnage capacity, expressed in tonnage, must be greater than the tonnage production. They specifically state that. The engineers found that for the period beginning, I think it was in 1910—from 1910 to 1915, inclusive, the average capacity was 131 and a fraction per cent of the average production. That is in the case of pig iron. In the case of steel ingots, it was 125 per cent; in the case of billets, blooms, and slabs, it was 124 per cent; in the case of rolled and finished steel, it was 127.4 per cent. That was accepted as the margin of excess capacity required over annual production.

As I explained in connection with the chart in the opening of my presentation of this case, that difference arises largely out of the difference in the production from month to month. In other words, the capacity is 12 times the greatest production, but the difference between slack months and peak months gives rise to this margin, which has averaged, in the case of pig iron, from 31 per cent to 24 per cent.

The CHAIRMAN. Are you correct in stating that the capacity is 12 times the peak production?

Mr. MANSON. I was going to come to that in a little while. I do not believe it is. It is my personal opinion that I do not think that is the basis upon which it was figured, but we used some 1923 capacity figures here. I used them to complete a showing, not that they were material at all, but I used them to complete the showing of the ratio of capacity to production throughout the period. I wanted those figures, and Mr. Parker called upon Mr. Whitney,

who is the bureau engineer who handled this case, and Mr. Whitney made the computations upon that basis.

Taking the peak month of each plant, multiplying it by 12, and then adding all the plants together, those figures for 1923 looked to me to be excessive. They look to be excessive for the reason that they show a greater margin between production and capacity for 1923 than the steel corporation's annual report showed for that period; but I had no way of disproving those figures.

If Mr. Hartson is correct in his attack upon my 1923 figures, then the Steel Corporation had not the surplus capacity in 1923 that my figures show. In other words, to be fair to the bureau, I accepted the figures that they furnished us, even though I considered them to be excessive, because the lower those capacity figures are for 1923 the stronger our case is; that the steel corporation had no excess capacity.

I will say this, that in the 1923 report of the steel corporation, as is shown by Exhibit L which I have offered here, Chairman Gary makes the following statement. This is an extract from the 1923 report to the stockholders of the United States Steel Corporation, a statement by the chairman of the board of directors, Judge Gary:

> Entering the year 1923 with a large tonnage of unfilled orders on the books, which was increased by liberal buying during the first five months, the subsidiary companies were enabled to operate on an average during the entire year at 88.3 per cent of capacity, the output during the first half of the year reaching 92.6 per cent. In point of total tonnage output of materials produced for sale, the year 1923 has been exceeded in only two previous years, 1916 and 1917. As a result of these large operations, together with improved selling prices, the earnings for the year show a substantial increase over those of the preceding two years.

All of my ratios have been worked out on the basis of the percentage of production to capacity. This is expressed just the other way, but reversing those figures, it makes 108 per cent. In other words, according to Chairman Gary's figures, the Steel Corporation only had 8 per cent more capacity in 1923 than their actual production.

As I have stated, the average for the pre-war period ran anywhere from 24 to 31 per cent. This allowance is based upon the theory that the Steel Corporation requires the excess of capacity over production equal to the average during the pre-war period.

If we are to take the official figures here furnished by Judge Gary, not for some use in this matter, but in his annual report to his stockholders, as a basis for determining excess capacity for the year 1923, we find that there is only one year in the history of his company when the margin between capacity and production was as low as it was in 1923, and that was in 1916. Even during the period when we were at war the Steel Corporation, as shown by my Exhibit C, did not come anywhere near producing steel as close to its capacity as it did in 1923.

I was going to say about those 1923 figures, that if those figures are excessive, it reduces the margin of capacity, and shows that they have less excess than my figures show. But I was in no position to attack those figures, so I accepted them. I want to say this, however, that Mr. Whitney told Mr. Parker, our engineer, when he came to make up those figures, that he had checked the capacity

figures furnished by the company, upon which the allowance was based, and that he had checked them in accordance with the formula which he used in arriving at the 1923 capacity, and that they checked out. Now, what does that show? That shows that if my 1923 figures are excessive, as Mr. Hartson claims in his statement they are excessive, then all of the capacity figures are excessive. If those figures are wrong, then every figure which enters into one of the primary factors used by the bureau in determining their amortization allowance in this case is wrong. I do not know whether they are right or wrong, but I do say this, that the statement of the chairman of the board of directors of the Steel Corporation shows that they had a great deal less excess of capacity over production in 1923 than the engineers of the bureau or of the Steel Corporation, in presenting this case to the bureau, assumed to be necessary.

Mr. HARTSON. Mr. Manson, in connection with that statement of Judge Gary's, I had not heard of it before, and never had it brought to my attention, but if I understood it correctly, as you read it, it would occur to me that for the year 1923 he was taking the position that the plants had been up to about 80 per cent of capacity.

Mr. MANSON. Eighty-eight and a fraction per cent.

Mr. HARTSON. Eighty-eight and a fraction per cent. There would be about a 12 per cent margin there?

Mr. MANSON. Yes.

Mr. HARTSON. The margin that you have said the bureau used in determining the pre-war margin for pig iron was around 31?

Mr. MANSON. Oh, no; you are wrong about that.

Mr. HARTSON. Now, wait a minute.

Mr. MANSON. You are talking about the wrong figures, Mr. Hartson. Judge Gary stated that the production for the year was 88 per cent.

Mr. HARTSON. That is right.

Mr. MANSON. Which left a margin between production and capacity of 12 per cent.

Mr. HARTSON. Yes.

Mr. MANSON. The average margin between production and capacity before the war was 31 per cent, so there was a great deal less margin, even on the 88 per cent basis, in 1923, between production and capacity than there was during the pre-war period.

Mr. HARTSON. Do you recognize that difference as being the difference between 12 and 31 per cent?

Mr. MANSON. Yes.

Mr. HARTSON. Yes.

Mr. MANSON. I want to point out this fact, that you could not reach a 92 and a fraction per cent production with an 88 per cent capacity, and while the production for the entire year averaged 88 and a fraction per cent, the production for the first six months averaged 92 and a fraction per cent.

I wish to also call attention to the fact that Judge Gary, in his statement, confirms the position that I have taken, and that is that it is when demands are greatest that you use the margin of your capacity to meet the peak demand, and that that is the time when you make the money. In other words, your competitors, your small

competitors, have their capacity absorbed, and the field of competition is limited to the few who have excess of capacity, and they get their own prices. That is when the profits are greatest. That is the reason the Steel Corporation has followed the policy of always having a capacity in excess of their production.

I take the position that if they find it proper to invest in capacity in excess of production, in order that they may get the pickings when pickings were good, it can not be said that the money they have invested in that capacity represents a loss that the Government should amortize, when, in accordance with their own fixed policy, they are constantly spending money year after year to maintain an increase of capacity.

Senator JONES of New Mexico. Am I right in assuming, also, that no allowance was made, even for salvage value?

Mr. MANSON. Yes; that is right.

Senator KING. On that theory you should not tax the farmer at all. Say a farmer here has 200 acres, and he sets apart 10 or 15 or 20 acres per year, and he allows it to be made fallow in order that it may be strengthened and fertilized to increase production the succeeding year.

Mr. MANSON. Of course not.

Senator KING. But the farmer is taxed for the land just the same.

Mr. MANSON. Oh, yes; but here is where he would get it, even according to this formula: Inasmuch as he has use for that land, preparing it for the crop next year, they would say, "That is in use even though you get nothing out of it."

Senator KING. But under this formula, in this case, they say it is not in use, and therefore we will allow amortization.

Mr. MANSON. Yes. This formula works a little stronger than that. Here you have something that you could not use under ordinary conditions. You have a piece of equipment that you can not use at all when competition is strong and prices are low, because it is too expensive to operate, but you carry that in your capacity just the same, because there come times when you can operate that at a profit. They reduce the value of the new equipment by adulterating it through this method of averaging it with the old equipment—the average capacity.

I want to call your attention to this: Mr. Hartson has said that that reduces the value of the new equipment, too. The fact of the matter is that, at the close of the war, all of the equipment installed during the war was in a newer condition and at a higher state of efficiency and had a longer life ahead of it than any of the equipment installed before the war.

I have used extreme illustrations here. I have taken the case of the furnace that had reached the point where it was about to be torn down, and compared it with a new one, which is just taking the two ends of the story. If you take any plant which was a going plant for any material length of time before the war, you find equipment in varying stages of wear, with varying lives ahead of it, and in varying stages of efficiency, but the equipment installed during the war, and every bit of equipment installed during the war was put into this claim—the equipment installed during the war was newer, more up-to-date, and had a longer life ahead of it than any other

equipment they had. The result is that when you average that equipment from the standpoint of capacity, this year and next year, with the older equipment, you are taking a value off of this equipment; you are reducing its value in use, and you are increasing the value in use of something else, as the case of the Berwind-White power plant, to the point where it has the real value of a brand new power plant. It was said that that power plant could be operated. Physically, it can turn over. Practically, it could not be operated, for the reason that the cost of operation, the cost of producing current in those old plants was so great that you could build a new plant and pay for it out of the savings.

I remember—and I do not want to take up time in any reminiscences, but this is directly to the point—quite a number of years ago, I tried a case involving the valuation of a street railway company in Milwaukee, and I remember that it was shown that there was an old power plant, consisting of 500 kilowatt generators, hooked up to a Corliss turbine engine by belt. That was in A–1 condition, and it was scrapped, although it had cost, but a few years before, some six or eight hundred thousand dollars, because, by the installation of 15,000 kilowatt turbo generators, they were enabled to save enough in one and a half year's operation to pay the entire loss in scrapping the old property.

That is an extreme case, and it just happened that that was at a time when one of the big steps was taken in increasing the size of electrical generating apparatus.

But what happened in that case happens, to a greater or less degree, in all manufacturing plants, in connection with all kinds of equipment, and that is shown in this case by the fact that hundreds of millions of dollars have been spent by the Steel Corporation from 1910 up to the present time, with practically no increase in the number of major units in their inventory.

The CHAIRMAN. Do I understand you to say that they put all of their purchases during the war period into their claim?

Mr. MANSON. All of the capital items, and many of the depreciation reserve items.

The CHAIRMAN. In other words, everything they purchased during the war years, all capital purchases, were put into their claim for amortization?

Mr. MANSON. Oh, yes. It is manifest that this claim was not built up by engineers, from the standpoint of the utility of the property. This claim was taken straight off of the books of the Steel Corporation by auditors, without regard to the use of the property. That is so manifest——

Mr. HARTSON. Mr. Manson, I want to get you right on this, if I may. Do I understand you to make the statement as of the fact that the Steel Corporation, without regard to designating expenditures for facilities which were to be used for the production of articles contributing to the prosecution of the war, claimed amortization on all expenditures, of whatever kind or nature, made during the war period?

Mr. MANSON. No; I do not mean to say that at all.

Mr. HARTSON. I am afraid you left that impression here.

Mr. MANSON. If I did, I want to correct it now.

The CHAIRMAN. You did leave that impression. I understood you to say that they put in a claim for all of their capital investments during the war.

Senator KING. I so understood it with the exception of the expenditures for the Howitzer plant and several other plants that were discarded.

Mr. MANSON. Oh, they put in a claim for that and got it, and they are entitled to it. There is no question about that.

The CHAIRMAN. Indicate to me, please, where I am wrong on that. What kind of capital investment did they make during the war that was not put in the claim for amortization?

Mr. MANSON. I do not know of any, and I am unable to find any. Mr. Parker states that the total upon which amortization was claimed—and that does not mean the amount of the claim; it means the cost upon which amortization was claimed—checks roughly with the capital expenditures made during the war period.

The CHAIRMAN. In other words, your contention is that substantially all of the capital investments made by the Steel Corporation during the war were put into their claim for amortization?

Mr. MANSON. Yes.

The CHAIRMAN. I think that straightens that out, Mr. Hartson.

Mr. HARTSON. Yes; it does. Of course, it should not be believed that all of those claims were allowed.

Mr. MANSON. Oh, no; I do not say that.

The CHAIRMAN. I am just as anxious to get at the disposition of the Steel Corporation as I am to get at the conduct of the bureau in this matter.

Mr. MANSON. I base that upon the statements made by Mr. Fischer and Mr. Van Schaick, and I can locate those statements right now and read them into the record, that in talking this case over with the large number of auditors that they came in contact with in the field, they found that the claim was made up by picking off of the books all the material charges made during the war.

The CHAIRMAN. Has any analysis been made of the claim as related to the allowance by the bureau in connection with each particular capital investment?

Mr. MANSON. I do not think I understand the Senator's question.

The CHAIRMAN. Mr. Hartson said that the fact that the corporation had claimed amortization on all capital investments did not make it follow necessarily that the bureau had allowed it.

Mr. MANSON. No; that is true, but the claim was for $83,000,000, and as against the $83,000,000 there would be $55,000,000 allowance.

The CHAIRMAN. I am not talking about dollars and cents now. I am talking about items. Has any analysis or segregation been made to show whether the bureau had disallowed amortization on separate items of investment?

Mr. MANSON. Oh, yes; that is true. Take the Morgan Park housing project up here at Duluth, Minn. They made a claim for the amortization of those houses there. This was supposed to be a model industrial community, and it was a permanent one. It is the only place where the higher salaried employees of the corporation have to live which is anywhere near the plant. The plant is quite a ways from Duluth, and this is supposed to be an ideal industrial

community. Claim was made for war construction there, and that was disallowed.

There have been many items that have been disallowed. In the exhibits here we set up the items upon which amortization was disallowed. We did not set up the 20,000 pages, but we have grouped them under the principal heads and have shown what was allowed and what was disallowed, together with the allowances that we take exception to.

In conclusion, what I was saying with reference to Judge Gary's statement, I take the position that inasmuch as the margin between capacity and production, as is shown by Judge Gary's statement, was only 8 per cent, and inasmuch as that was only about one-third, or less than one-third of the average margin between capacity and production during the pre-war period, it shows conclusively, to my mind, that they had no excess capacity.

Senator KING. They could not run the business without a margin or excess of capacity over production.

Mr. MANSON. I think that is all I have to say on this matter.

Senator KING. I want to ask you—and this is not pertinent to what we have been inquiring about to-day—but I want to ask Mr. Hartson this. In view of the fact that the Secretary of the Treasury, as I am advised, has asked for an appropriation of nearly a hundred million dollars for refunds, are they any of those persons who would benefit by this refund, who would come within the category of this formula?

Mr. HARTSON. I can not answer that.

Senator KING. Because, if that is true, and if they would come within any of the matters in controversy, I would oppose that appropriation at the present time.

Mr. HARTSON. Well, Senator King, I can not answer that with reference to any particular cases, but I will say, from my general knowledge, that there will probably be some taxpayers who will receive refunds out of this apropriation which is now being sought, based on the application of this formula. I do not know that as to any cases I have in mind, but I think it is a fair assumption.

Senator KING. Would they come within a category that would be reached by any of the criticisms thus far made by Mr. Manson and his associates, whether right or wrong, I mean?

Mr. HARTSON. Yes. Of course, there has been an agreement between the committee and the representatives of the bureau, that in cases which are being criticized by the committee and that are subject to the investigation of the committee, they are not to be closed, and no refunds are to be made. Those cases are all being held up.

Senator KING. Yes, I understand that.

Mr. HARTSON. Your question went, however, not to the specific cases, but to cases where this formula was used.

Senator KING. And any other method of settlement that has been adopted which had come under the criticism, or is the subject of any of the criticisms which have been made by Mr. Manson and his associates.

Mr. HARTSON. An attempt has been made to withhold settlement in all cases involving refunds.

The CHAIRMAN. Or abatements.

Mr. HARTSON. Or abatements, or any other method, in cases which have come under the criticism of the committee, whether specifically named, or where objection has been made thereon?

Senator KING. I would be very glad, for my own information, if it could be done very quickly, or run over hastily by some person in your office, if you could advise me or the chairman, if he approves of my request, as to those persons that might come in under this appropriation of a hundred million dollars, subject to the criticism made by Mr. Manson.

Mr. MANSON. I think I see your purpose, Senator, and I can simplify it. I believe that there are included among those claims for which an appropriation is asked, no claims on which amortization has been allowed in a very substantial amount which would come under this criticism.

Senator KING. I fancy there might be some other grounds of objection which you might take with respect to the method of allowing credits and refunds?

Mr. MANSON. Oh, there will be a great many of them, particularly in connection with depletion.

The CHAIRMAN. Let me ask you, Mr. Hartson, if you think it would be much of a job to run over these cases?

Mr. HARTSON. Mr. Chairman, it would be a considerable job, if not an impossible one, considering the number of claims that have been filed, some of them small and some of them large. It would be an interminable task to find out which of them involve a refund growing out of an amortization allowance based on the use of this formula. It might be that this can be done, but I would like to consider it and advise the chairman at the next meeting just what the difficulties would be, and whether it can possibly be worked out. But this might be done; we might be able to recognize, without very much difficulty, certain large cases which involve amortization allowances, and which involve the use and application of this formula, and pick out some of the larger ones.

The CHAIRMAN. Could they be made to include discovery values, depletion, depreciation, etc.?

Mr. HARTSON. The Committee has not come to those cases yet, although I understand we are coming to them.

The CHAIRMAN. The point is this. I think the committee would be subject to severe censure, or at least the members of the Committee, acting individually, if they voted for the appropriation of $100,000,000 to the Bureau of Internal Revenue, when they were criticising the very work of the bureau itself.

Senator JONES of New Mexico. I make this suggestion. This appropriation of $100,000,000 is just a lump sum, is it not?

Mr. HARTSON. Yes.

Senator JONES of New Mexico. And I assume that it might not all be required for this purpose during the fiscal year.

The CHAIRMAN. I do not understand that.

Mr. NASH. I think I can explain that.

I prepared that estimate, and it is just as Senator Jones has expressed it, a lump-sum appropriation, and it is based upon what has happened in the past. We have used refunds at an average of

around ten million dollars a month, and the appropriation that is now asked for is to carry us through to the opening of the next session of Congress, to take care of the claims that may be allowed by the Bureau in the meantime. There are 80,000 claims pending in the Bureau, and they are coming in at the rate of 15,000 or 20,000 a month.

Senator KING. If I voted for it, I would insist upon putting a string to it.

Senator JONES of New Mexico. I take it that the arrangement that we have made here with the bureau is quite ample to cover the situation, because we assume that the Bureau will carry out in perfectly good faith the understanding which we have had, and that if this hundred million dollars is appropriated for its use, they will not pay any of it out in claims which may come under these disputed items which we have been discussing in the committee. If that is so, it seems to me it is just a mere matter of giving the bureau an appropriation which would permit it to do the undisputed things, and pay off claims about which we have raised no question.

The CHAIRMAN. I think it goes further than that, though, Senator. It should be understood that we are investigating the question of oil discoveries, depletion, and things of that character, as to which we are likely to be in violent disagreement with the Bureau if they are going to use this hundred million dollars to pay those claims, or any of them, which are not in accordance with the previous understanding they would still be able to close cases which had not been reached by the committee.

Mr. MANSON. You have many cases closed, Senator, involving those same issues, where the refund has not yet been made.

Senator KING. They would be paid out of this fund; is not that so?

Mr. MANSON. To which we have not called the attention of the committee.

Mr. HARTSON. It is possible, Senator.

Mr. NASH. It is possible there may be cases somewhere involving questions that the committee has criticised.

The CHAIRMAN. Is there any action that could be taken to stop these payments pending this inquiry?

Senator KING. You could do that by not appropriating the money.

Mr. HARTSON. I think that would be a very great hardship. I think the committee can rely on the bureau acting in good faith on its understanding with the committee, that as long as these cases are under investigation—not only particular cases, but cases involving a principle, and we could even extend it, as the chairman has suggested, to include cases involving an adjustment growing out of depletion from discovery value——

Mr. MANSON. Or depletion based upon the analytical method.

Mr. HARTSON. Those are already under inquiry.

Mr. MANSON. Yes.

The CHAIRMAN. I think the committee can rely upon the bureau not to pay any refunds out of this appropriation which involve questions which we have been discussing.

Senator JONES of New Mexico. I think so, Mr. Chairman.

Mr. NASH. Mr. Chairman, every case involving a refund of over $50,000 is routed through Mr. Hartson's office before final approval,

and is given final approval in his office. We can stop every case involving that amount in Mr. Hartson's office. If you want to stop the cases involving less than $50,000, of course, it would be more difficult, as they are spread out throughout the entire bureau.

The CHAIRMAN. I do not think it is fair to penalize taxpayers in cases involving over $50,000 and let those go where less than $50,000 is involved. I do not want to penalize the taxpayer in such cases.

Mr. HARTSON. Of course, the great majority of these cases have no relation to anything that has been criticised here by the committee. For instance, in connection with this question of community property in California, it is possible that the department will have to pay back $65,000,000, and that would have to come out of this $100,000,000 appropriation. That is the purpose in asking for the appropriation, and there are many other cases, which have no relation to these things. So I do believe that, in order not to work an injustice on the taxpayers generally, the committee would be safe and fully justified in relying on the representations of the bureau that we will not pay any cash refund, and it is only cash refunds that will be involved in this $100,000,000 appropriation, in cases which are specifically under investigation, or which involve principles which are specifically under criticism here.

Senator KING. I suggest, Mr. Hartson, that you have somebody make a rather hurried, but as accurate examination as you can of claims where refunds have been ordered, and let us know at the next meeting. I am sure that we can devise some means that will protect the Government and, at the same time, do no injustice to the taxpayer who really ought to have a refund.

Mr. HARTSON. Very well, Senator.

There is just one thing I want to say in connection with the United States Steel Co. and the application of this formula in determining its amortization allowance. Of course, that case is not closed. It is still the subject of proper adjustment, based on lines which are satisfactory and which meet with the agreement of those who are in administrative control of the bureau.

This formula which has been criticized, as pointed out by Mr. Manson, was the subject of criticism by the legal department of the bureau a year and a half ago. Some of the technical criticisms, if not all, that Mr. Manson made were made by the solicitor at that time. I am not in a comfortable position here in defending this situation, but my remarks now are not due to any feeling of embarrassment at all. I do want, though, to point out to the members of the committee that the matter became one of policy a year and a half ago, when this issue was raised. There was advice on the one hand from the legal department that a technical consideration of these claims, detailed in nature, should be made, and the reply of the administrative branch of the bureau was that practically that could not be done. Mr. Manson has said that, of course, it could be done, and the expense would be well warranted, because some millions of dollars might have been saved in this particular case.

The bureau had a little bigger problem, though, than the settlement of this case before it when this question of policy had to be determined, namely, the reopening and disturbance of all the other cases that may have been closed under this so-called formula; how many there were I do not know and am unable to say. The expense

that was no doubt referred to in the statement I made here a day or so ago was not the expense alone in this case, but the expense generally that would be involved and the time that would be taken and the disturbance that would result from upsetting a practice which had been ineffect for some time.

Senator JONES of New Mexico. When was that formula adopted as a rule by the bureau?

Mr. HARTSON. I can not say, Senator, exactly, but it was in the early stages, I believe, of the s ttlement of these amortization cases, which would start it some time in 1920, and coming on down to the present time. I do not know the exact time. The formula is included in the engineers' manual which was prepared by the chief of the amortization section some time ago. It was put in final form a couple of years ago, I think, and was used as a guide by the engineers as they went into the field. It was the result of the experience that they had had there, and those considering it thought that the principles announced in these rules, which were for the guidance of the engine rs, were proper ones, and the engineers went out, as Mr. Whitney did in this case, to settle these cases along the lines laid down in the manual, which was in his hands at the time.

Now, the point I am making is this—and I would like to impress it on the committee—that the question was a big one. It had not this case alone in mind at all. It was a big policy question and it was determined, when that matter came up, to follow the practical method, believing as they did that the average method, which is a rough way to describe the use of the formula, as a general proposition gave the taxpayer a reasonable allowance, and that any more detailed examination than was contemplated by the use of the formula would not result in that quicker collection of the tax which would be warranted in the light of the additional effort that would have to be expended.

Senator JONES of New Mexico. Who assumed the responsibility of announcing that formula?

Mr. HARTSON. I do not know, Senator. As a matter of fact, personally, I have made no effort to find out who actually assumed that responsibility. Major De La Mater communicated with his chief. I think it is entirely safe to say that the deputy commissioner in charge of the Income Tax Unit was consulted about it and was cognizant of it.

The CHAIRMAN. Legally, however, the commissioner is responsible for it, is he not?

Mr. HARTSON. Oh, absolutely.

The CHAIRMAN. Before we pass from the Steel Corporation case, I see that Judge Gary has stated that the case was closed; the statement was made in the press that it was closed, and I would like to ask if it is practicable for the bureau to consider the discussion that we have had in this case and to have the case revived or reviewed again?

Mr. HARTSON. Senator, you asked that question some sessions ago, whether I agreed with the statement of Judge Gary that the case was closed, and I told you I did not.

The CHAIRMAN. Yes.

Mr. HARTSON. I think Judge Gary was acting absolutely in good faith when he made the statement that it is closed. The amortiza-

tion report was approved in the amortization section, and I think the representatives of the United States Steel Corporation might well have assumed that, so far as any further discussion and dispute over amortization was concerned, it was eliminated.

The CHAIRMAN. It was closed so far as that element was concerned?

Mr. HARTSON. Yes; it was closed so far as the amortization was concerned. The amortization section had been abolished, and the case went over into the engineer section. There was a dispute and disagreement there.

Mr. Manson has made the suggestion that those disputes did not involve the things that are here under discussion.

Mr. MANSON. Mr. Greenidge has admitted on the stand that they did not.

Mr. HARTSON. There was the disagreement which arose in the engineering division which would have brought the case, in due course, to the solicitor's office for some kind of opinion. This would have delayed the settlement of the amortization question, and it might, of course, have resulted in a reopening of the whole thing, if it came over there on grounds other than the grounds that presented a question for opinion.

Senator JONES of New Mexico. I take it that the bureau can open up any of those questions until the whole case is finally disposed of and adjustment made.

Mr. HARTSON. I think that is true.

Senator KING. Including amortization?

Mr. HARTSON. I think that is true in this case.

The CHAIRMAN. Will they do so in the case of the Steel Corporation?

Mr. HARTSON. Well, Senator, in the case of the Steel Corporation we have already announced that there is one question which no advice was ever sought on and which we think is a very doubtful one, namely, the allowance of amortization to transportation facilities of common carriers for the United States Steel Corporation, as commented on by Mr. Manson. That is going to be gone into in the solicitor's office.

The other point, namely, the use of this formula, and I take it that that is what the Senator is after——

The CHAIRMAN. I am in part considering the use of the formula, but I am particularly interested in the use of the estimate of production for 1922 and 1923, as compared with the actual production during those years, which, I think, is a specific, plain, outstanding issue which can be concluded without much discussion, and I would like to know if that can be reconsidered.

Mr. HARTSON. I think that can be reconsidered, Senator. I can not speak for the bureau, to say that it will be, but personally I think it should be. I am very glad to tell you that.

The CHAIRMAN. You might indicate in the record, Mr. Reporter, that Mr. Nash nodded his head in reply to that.

Mr. NASH. I agree to it; yes, sir.

The CHAIRMAN. If it is agreeable to the members of the committee, we will adjourn now until 10.30 o'clock to-morrow morning.

(Whereupon, at 12.30 o'clock p. m., the committee adjourned until to-morrow, Tuesday, January 6, 1925, at 10.30 o'clock a. m.)

INVESTIGATION OF THE BUREAU OF INTERNAL REVENUE

WEDNESDAY, JANUARY 7, 1925

UNITED STATES SENATE,
SELECT COMMITTEE TO INVESTIGATE THE
BUREAU OF INTERNAL REVENUE,
Washington, D. C.

The committee met at 10.30 o'clock a. m., pursuant to adjournment of yesterday.

Present: Senators Couzens (presiding), Ernst, and King.

Present also: L. C. Manson, Esq., of counsel for the committee; Mr. L. H. Parker, chief engineer for the committee; and Mr. H. M. Parker, investigating engineer for the committee.

Present on behalf of the Bureau of Internal Revenue: Mr. C. R. Nash, assistant to the Commissioner of Internal Revenue; Mr. Nelson T. Hartson, Solicitor, Bureau of Internal Revenue; Mr. James M. Williamson, office of Solicitor, Bureau of Internal Revenue; and Mr. S. M. Greenidge, head engineering division, Bureau of Internal Revenue.

The CHAIRMAN. Mr. Hartson has been called away to attend a conference to-day, and I understand that Mr. Williamson is going to represent the bureau in a legal capacity at this hearing. I will ask you, Mr. Williamson, if you want to raise any issues at this time, or to make any statement in connection with the case?

Mr. WILLIAMSON. Mr. Chairman, inasmuch as Mr. Hartson has been called away suddenly after he had come down here, and as there are certain matters in connection, not only with this case but the preceding case that he wanted to present, I would like to request that the committee give him an opportunity, at some later date, to make such statement as he may deem to be advisable.

The CHAIRMAN. That is entirely proper. I want to ask at this time if you desire to put these engineers on to make a statement concerning the Steel Corporation case, to which Mr. Hartson referred before the meeting convened to-day.

Mr. WILLIAMSON. I think it is his plan to put on some of the amortization engineers.

The CHAIRMAN. Is that your understanding, Mr. Nash?

Mr. NASH. Mr. Chairman, we have Mr. Tandrow here this morning, and Mr. Hartson and I discussed with Mr. Tandrow yesterday afternoon the analytic appraisal method that was used by engineers in determining values for amortization purposes and the formula that was used in the United States Steel Corporation case. I do not

know of any reason why Mr. Tandrow should not take the stand and give us his views on the use of that formula.

The CHAIRMAN. If agreeable to Senator King, we will do that.

Senator KING. Yes.

Mr. NASH. With reference to this Sand & Gravel Co. case, it is all new to Mr. Williamson and myself and we would like to present the bureau's side of that case at the next meeting of the committee.

The CHAIRMAN. That will be satisfactory.

I might say, Senator King, that Mr. Tandrow has already been before the committee, and has been sworn.

TESTIMONY OF MR. W. S. TANDROW, APPRAISAL ENGINEER, BUREAU OF INTERNAL REVENUE—Resumed

Mr. TANDROW. I have gone over the testimony, but I have not prepared any memorandum and do not know in just what manner it would be best to present my ideas.

I would like to say this, however: Of course, I am connected with the bureau, but I have no personal interest in the bureau as an organization. My statements are made without any control from any source whatever.

I have read over counsel's contentions in connection with this Steel Co. case, and outside of one single point there is not an argument or an objection which he has stated with which I agree. Universally, throughout the entire testimony, there is only one point where I could say that his position is correct, in the light of our experience with the bureau.

I have listed the exceptions that came to my mind as I read the testimony over last night. There really are so many that it would be necessary to take the testimony, the statements, and develop the points that have been stated to the committee, and then explain my position in regard to those points.

The principal objection, however, which came to my mind, is the repeated inference that in the administration of the affairs of the bureau there is some great veil of secrecy by which certain taxpayers are privileged, those that are initiated, to get certain concessions, and that those that are on the outside do not have access to those concessions. In my experience with the bureau, I have never found that to be the case.

In handling amortization, I have frequently been called upon to advise taxpayers before their claims are submitted, as to the manner in which they should be prepared, the facts to be presented to the bureau, and what their rights are under the law and under the regulations. I have gone to those taxpayers with absolutely an open mind, and I think every other engineer has done the same thing that has been placed in that same position, without any restriction whatever. We have advised those taxpayers as to how their claims should be presented. They come in, and probably those claims are submitted to other engineers for consideration. They are handled in the regular way. A recommendation is made, which results in an allowance, and the taxpayer receives a copy of the report, the basis upon which the conclusion was reached, the amount of cost considered, the amount disallowed, the amount of amortization claimed, and the amount disallowed.

The CHAIRMAN. I want to object at this point to this statement being made in the hearings here. I think, Mr. Tandrow, you have a wrong conception as to what counsel referred to as secrecy in dealing with these claims. As I understand counsel, from talking to him, not only in these meetings, but outside, the secrecy refers particularly to the fact that the rulings of the bureau, when once arrived at, are secret in that they are not published. There is no published ruling in each case, so that other taxpayers may have access to the reasons for these conclusions. In other words, counsel does not complain about the secrecy so much as to your meeting in rooms, although I contend that that is objectionable, in settling these cases; but after you have reached your conclusion through a certain method of reasoning, that conclusion is not published, and therefore it is secret, and other taxpayers who do not come to you for advice as to how to make out their claims do not get the benefit of those rulings. Therefore, so far as the public is concerned, they are secret.

Have I stated that correctly, Mr. Manson?

Mr. MANSON. Yes; that was my position.

Senator KING. That is my understanding of Mr. Manson's position. He was not complaining of your administrative methods, but that when a decision was rendered in A's case, B, C, and D would not know anything about it.

Mr. MANSON. My real complaint was that the only published ruling on the subject of amortization appears to condemn the general practice in the case of amortization.

The CHAIRMAN. I want to say this, in all consideration for the bureau, that, as I told Mr. Hartson before the meeting convened to-day, we had no objection to hearing his engineers, but a mere general denial, without any evidence to substantiate those denials, is not of any interest to the committee. What is of interest to the committee is something that you can produce to substantiate your contention that Mr. Manson is all wrong.

Mr. TANDROW. Of course, I did not hear the statements as they were made by Mr. Manson,

Mr. MANSON. They are all in the record.

Mr. TANDROW. Yes; but in reading the record, it occurred to me that there was an inference in those statements which would lead a person to believe, one who was not familiar with the operation of the unit, that there was some very great secrecy in the method of handling these amortization claims.

The CHAIRMAN. I explained that, and there is no denial; in fact, Mr. Hartson agreed, and his request to me before the meeting convened to-day was to permit the bureau to explain why the law was not carried out in accordance with his ruling; I mean the ruling which came from the solicitor's office. He admits now, and at all times has admitted, that the opinion that he gave a year and a half ago as to amortization was not followed by the bureau; that the law was not followed; but he contends it is impractical to follow the opinion as he laid it down a year and a half ago. Therefore, he has asked permission to put on some engineers to prove why the carrying out of that opinion of his was impracticable. I think that is all the committee is interested in hearing to-day. We do not

want to have a denial of Mr. Manson's statements just because you have a conviction, and we do not want you to deal with innuendos. We want you to carry out Mr. Hartson's request to be permitted to tell us why you could not carry out the opinion as he laid it down a year and a half ago.

Mr. TANDROW. I personally believe that the law has been followed.

The CHAIRMAN. He admits that it has not. We do not want to go into any controversy with different members of the bureau.

Mr. MANSON. I want to call attention to this, that after I made my opening statement in this case, the bureau was allowed about ten days to consider and prepare an answer, and that answer was considered and prepared in writing and was read into the record. My last statement was a response to that carefully considered and prepared statement, and it does not stand as Mr. Hartson's admission alone; it is the answer of the bureau here.

The CHAIRMAN. So we do not care what the bureau may argue between themselves, but we are complying, so far as we can, with the request that Mr. Hartson made, to permit you to tell us why it was impracticable to carry out Mr. Hartson's ruling a year and a half ago?

Mr. TANDROW. Taking the general principle, I believe that ruling has been followed as carefully as it was possible to follow it.

If you will recall, it states in the ruling that the engineers are to find value in use of individual facilities. When we determine value in use, that contemplates a standard by which the value must be measured. Therefore, we must first determine the standard. How are we to apply that standard? In the case of the average taxpayer, we will have as many as twenty thousand or thirty thousand items of machinery. If we would follow literally the prescription in the opinion, it would be necessary to analyze in detail the function of each individual machine. I believe that is what is intended by that memorandum, as I read it.

In many cases it is impossible to even get an accurate measure of the operation in one department, to say nothing about the individual machines; so that to apply in detail the theory of that opinion would be practically impossible.

We do take departments, which is the formula that has been used and is now in use. We take the average of our 1921, 1922, and 1923 production by departments, and analyze that in the case of a given industry down to as fine a point as possible, and determine our value in use factors which will indicate the general function in one department; but to take and work out the claims on the basis of the recommendations in that opinion would require at least ten times as much time as is now required to handle a claim, and it would involve ten times as much expense.

Senator KING. I do not see—and I am, perhaps, expressing my ignorance, for I am ignorant on this matter—where there is a great deal of difficulty in going into a steel plant or a blast furnace and getting this information. I revisited one recently. I have visited a great many blast furnaces merely for the purpose of looking, not as an operator, and it would seem to me that any person familiar with blast furnaces and smelters—I have been into scores of smelters, and while I am not an expert on them, I can go into a smelter and I can tell, and I think anybody could tell who is at all familiar with blast

furnaces its utility and its value in use, by a particular observation extending over one or two or three days, through the operation of the furnace, the operation of the cranes, and all of the mechanical appliances, without inventorying every wheelbarrow and every spike and every piece of steel and every billet and everything else that is in and about the premises. I can not conceive of the difficulties being so insuperable as your reply would seem to indicate.

Mr. TANDROW. Well, I would say, Senator, if you interpret the solicitor's opinion literally, it would be necessary to make a study of the operation of each particular item which is covered in the claim.

So far as your statement is concerned, we follow the very practice that you have suggested.

In the case of blast furnaces, we do not take the operation of that furnace as it appears to work on a particular day when we make an examination of the plant, but we take an average condition, and we are advised as to the capacity; we know definitely what the capacity is, and we compare that with production.

The CHAIRMAN. The point Mr. Manson is contending for all along, is that it must be an average. He does not even suggest that you analyze each of twenty or thirty thousand machines. I have personally attended all of these sessions of the committee, and Mr. Manson does not suggest or even intimate that you should examine the operation of twenty or thirty thousand individual machines in a plant.

Mr. TANDROW. Well, Senator, in Mr. Manson's statements made to the committee, it is rather difficult to follow just his exact reasoning. On the one hand, he will refer, for example, to the Ford plant, and say that the ultimate production of Ford cars will fairly represent the physical use of all the elements of which the plant is composed. Now, that is the system that we follow.

On the other hand, he will say in this testimony that that method is entirely incorrect, and that we should follow the prescription of the solicitor's recommendation, which would mean that it would be necessary for us to analyze in complete detail the operation of every unit in the Ford plant.

There is one point there that comes to my mind that I think is very important.

In his comparisons he is comparing postwar production with postwar production. In the case of the Ford plant, he is comparing Ford cars with Ford cars in determining value in use. This is not our problem.

In the first place, we have been dealing with war conditions. In the Ford plant, as is probably known by the Senator, a great many Liberty motors were produced during the war. Those Liberty motors cost about $10 a pound, as against a cost of probably 50 cents for the Ford car. It stands to reason that the value of a machine that is finishing, grinding, and so forth, on a Liberty motor, is much greater than on a Ford automobile. So we are confronted with the problem of comparing used machines in producing Liberty motors with the used machines in producing Ford automobiles. So his comparison recognizes only the conditions that have obtained during the postwar period, when like conditions are being compared, and that

does not give us what we are seeking for in deciding amortization claims.

We are always confronted, in considering postwar conditions and comparing those conditions during the war with conditions which were in practically every case materially different than the conditions we find in the postwar period.

You can not lay down a general rule and hope to hold an engineer to the absolute definite following of a formula that does not take into account these details that an engineer must recognize and deal with every day from a practical working standpoint.

The CHAIRMAN. As a matter of fact, these engineers in the first report reported that these facilities were 100 per cent in use. If engineers are to have free latitude in arriving at these conclusions as each chooses, and which you intimate is the case, which engineers' reports are we going to take or are you going to take as final?

Mr. TANDROW. I would say this, Senator, that the first reports were prepared in 1920. Now, up to 1920, a normal postwar period had not yet become apparent.

The CHAIRMAN. That is very interesting, because it appears that conditions had become normal in 1920, but they were not normal in 1921. In spite of the fact that 1921 was the most abnormal year the country ever had, by 1920 conditions had become normal, in your opinion.

Mr. TANDROW. You say that in 1920, in my opinion, was a normal year?

The CHAIRMAN. You say the country had not gotten normal in 1920, so you did not use 1920.

Mr. TANDROW. No. That is correct.

The CHAIRMAN. But in 1920 it had become normal, although it is generally admitted that 1921 was the most abnormal year that we ever had.

Mr. TANDROW. Senator, I do not believe that in this particular case 1921 was recognized as a normal year, for the reason that the actual production in 1921, 1922, and 1923 was compared with the 1921 capacity. To my mind there is a very good reason for taking the capacity in 1921 as the basis of comparison, and that is that during the war——

The CHAIRMAN. We have no objection to your taking the 1921 capacity, but we are objecting—and when I say "We" I mean counsel for the committee—to your taking the production for 1921 and not the capacity.

Mr. TANDROW. We have also taken the production for 1922 and 1923.

The CHAIRMAN. Yes; but you estimated production for 1922 and 1923 to be below the actual production, and then you arrive at a conclusion that is away out of line with the actual facts.

Mr. TANDROW. That is simply because at the time these investigations were made the actual facts were not available.

The CHAIRMAN. But when your conclusions were reached in 1924, actual information as to the production of 1922 and 1923 was available.

Mr. TANDROW. To answer that, if I had been the engineer in the United States Steel Co. case and had been handling that case pro-

gressively over probably 18 months, and if it were put up to me as to whether or not in that particular case I could actually recommend that the actual production for 1922 and 1923 be substituted for the estimated, I would say no, for this very reason, that the United States Steel Corporation is merely a taxpayer. Although it has involved a great sum of money, in the mind of the engineer it is merely a taxpayer, and it is only recognized as a taxpayer by the law. We have handled, in addition to the Steel case, 4,000 cases. In many of those cases in the early years, in 1920 and 1921, we were confronted with this same problem as the engineer was confronted with in handling the Steel Company case; so that I would say that in 80 per cent of the cases that have been closed, we have had to rely upon estimates, for the reason that facts were not available. The Steel Company case was no different from the rest of them.

To my mind it would not be honest, and it would not be ethical practice to ask an engineer to violate what I would call a consistent and uniform practice in a class of cases because he would be departing from a practice that had been applied in many other cases where the same estimates, the same facts, as did become apparent, were taken into consideration.

Senator KING. Your position is, then, assuming that this Steel Company case has been settled upon a wrong basis and closed, and that when it was so closed it was known it was wrong, you would still adhere to that wrong because it had been sanctified through the passage of time, and because you had closed thousands of others on that wrong basis?

Mr. TANDROW. Senator, I do not believe there is a line of demarcation that you can draw. If you are going to open the Steel Company case, in the interest of fairness to every taxpayer that is affected by the amortization section of the law, I would say you would have to open every other case.

The CHAIRMAN. You do not say anything about fairness to the Government. You seem only to speak about fairness to the taxpayer. That seems to be running through your mind all the time, and I would like to ask you, in this connection, whether, if you had overestimated the production of 1922 and 1923, would not the taxpayer have taken care of himself. In all of these cases they have protested and been taken care of, but when you have greatly underestimated it, to the detriment of the Government, the Government has no protection at all. No one represents the Government. Only the taxpayer is considered, because you must not affect him. Yet, as I have pointed out, if you had overestimated production, the taxpayer would have taken care of himself, but when you underestimate the production, there is nobody to take care of the Government.

Mr. MANSON. At this point, I wish to make a suggestion, and that is that I have long anticipated that the time would come when I would be required to suggest to this committee that it is necessary, in the interest of the Government, to review every amortization allowance which has been made.

Senator KING. I think it is necessary that we review every type of case.

Mr. MANSON. But the record, up to the present time, has not warranted me in making that statement. I am glad that Mr. Tandrow agrees with me, because he is in the bureau and knows the conditions. All I know about that is what we have developed here.

Mr. TANDROW. Senator, your remark that the bureau was not represented in the consideration of all of these claims, although that might be the inference from my statement, because I happen to be dealing with a particular case where the facts showed that the taxpayer would not be entitled to as much amortization as has been granted, if actual production was taken—now, that condition does not obtain in all cases. It works both ways. It works for the taxpayer, and it works against him. I am assuming, just as a matter of principle, it will work probably against one taxpayer for another taxpayer.

The CHAIRMAN. Do you contend that that is the way the application of a rule should work?

Mr. TANDROW. I do not contend that a rule should work that way.

The CHAIRMAN. But you admit that it does, and yet you approve of the rule.

Mr. TANDROW. I do approve of the rule.

The CHAIRMAN. Yet you admit it works a hardship on one taxpayer and favors another taxpayer.

Senator KING. Is that the way it has been interpreted in the past?

Mr. TANDROW. Yes.

The CHAIRMAN. Yes.

Mr. TANDROW. For the reason that we had to handle these cases without having all of the facts available.

The CHAIRMAN. But you do not justify getting all of the facts, because it is too cumbersome and too hard to handle. Is that the reason?

Mr. TANDROW. No; I would not say that. My position would be definitely this, that if it is decided to open any particular case for the purpose of making a correction to comprehend the actual facts or actual production during 1921, 1922, and 1923, every other case should be opened and handled on the same basis.

The CHAIRMAN. Do you recall any case where you overestimated production?

Mr. TANDROW. Senator, we do not follow up our cases.

The CHAIRMAN. I am just asking you if you recall any case?

Mr. TANDROW. I have in my mind one case.

The CHAIRMAN. Did the taxpayer protest in that case?

Mr. TANDROW. No. I believe that is a closed case. That is the case of the Colorado Fuel & Iron Company.

The CHAIRMAN. In that case you overestimated production?

Mr. TANDROW. I am quite sure that I overestimated production.

The CHAIRMAN. And the taxpayer did not protest?

Mr. TANDROW. Not to my knowledge. I am quite confident——

The CHAIRMAN. The taxpayer took your estimated production?

Mr. TANDROW. They accepted my estimate of production.

The CHAIRMAN. I will ask counsel for the committee to please look into that case and see what the circumstances are.

Senator KING. I do not want to interrupt you, Mr. Tandrow.

Mr. TANDROW. That is perfectly all right. I am glad to be interrupted.

Senator KING. But I want to give you an opportunity to explain any point that you desire to explain. We want information here. I can not quite understand the difficulties that, I think, you seem to exaggerate, in getting the facts. Take the Coorado Fuel & Iron Co. or the Ford Motor Co. or any other big company, when you go to them for the purpose of determining the tax which should be paid, say, for 1922 or 1923, what facts are there that you can not get, if you have the proper investigating and the proper technical spirit?

Mr. TANDROW. I will just say this, Senator, that we have had this work in progress since 1920. Now, a formula, or what is referred to as a formula, has been adopted as the basis for determining value in use. That formula takes into account production for 1921, 1922, and 1923, and it is compared with capacity to determine this value in use factor. As I say, we have been engaged on this case since 1920. In the Colorado Fuel & Iron Company case, for example, I made a field examination in December of 1922. I was working against that formula, which said that I must take into account estimated production for 1923. I took the actual production for 1921 and 1922, and I estimated the production for 1923. The absent factor was the production for 1923, because I was making my examination in December of 1922. That is the only deficiency in the method.

The CHAIRMAN. Can you tell me the factors you used in arriving at the production of 1923?

Mr. TANDROW. The factors I used?

The CHAIRMAN. Yes.

Mr. TANDROW. Well, 1921 was a rather low year. In 1922, there was a very substantial increase in business, so that I broke that industry into as many parts as I possibly could, where the taxpayer had records of his operations. I believe I had ten different factors. I projected my production from 1921 and 1922 into 1923, recognizing the tendency to increase between 1921 and 1922. In other words, 1923 was slightly higher than 1922, because the curve has had an upward tendency.

I tried to comprehend a possible increase in 1923, on the basis of that upward tendency in 1921 and 1922.

The CHAIRMAN. Did you average the three when you got your estimate for 1923?

Mr. TANDROW. Yes, sir; I averaged the three.

The CHAIRMAN. Have you found out since whether your estimate for 1923 was below or above the actual?

Mr. TANDROW. As I say, I have not followed that case, but just through reading of it from daily papers and from the reports as they have come in to me, I believe their business in 1923 was very low, and I think it was very low in 1924.

Now, there is another point that has been brought up, which counsel has suggested, in the consideration of this case, which takes into account salvage value.

My position is that salvage value is not material to an amortization examination. The question of salvage does not enter into it, for the reason that your amortization is carried back to the end

of your war work. Your investment cost is reduced by the amount of the amortization allowed. That becomes reduced value on the taxpayer's books during the postwar period, and depreciation is taken off at the regular rates from that reduced value until the utility life of the facility has expired.

The CHAIRMAN. Do you remember reading Mr. Manson's example with reference to the 100 cars?

Mr. TANDROW. Yes, sir.

The CHAIRMAN. Do you not think salvage value applies in cases like that?

Mr. TANDROW. No, I do not, Senator. I can not agree with that in any respect, for the reason that those cars have been retained in use. The purpose in the taxpayer's mind is not to hold those cars for sale. He is not contemplating the sale of those cars, but he has excess capacity there. From a practical standpoint, a taxpayer, rather than set aside ten or fifteen of his only remaining capacity, will use the whole thirty cars to a lower capacity. On his accounts, after amortization has been allowed, those cars are carried at a reduced or amortized value. Depreciation is charged out through subsequent years of use at the regular rate, until the cars reach a physical condition where they are no longer useful in the taxpayer's business. If they have a sale or salvage value, whatever is realized from the sale of that property is credited back to his investment account, and in that way, and in that way only, are there any provisions for giving effective salvage value.

The CHAIRMAN. Let us take this car example that Mr. Manson has used. The government actually pays for the cars that are in excess of the requirements. The government pays by allowing a credit on the tax which the taxpayer is paying. Therefore, the money of the government is used to make up the amortization which is allowed in this particular case; so, in effect, the government really has its money invested in the cars that have been amortized. In view of that fact, they could take those cars away, and I think the government is entitled to take those cars away from the taxpayer, because the taxpayer says "I want you to pay for those cars. We bought them to aid you in the prosecution of the war; we bought them in excess of our needs, and I want you to pay for them." That, in effect, is what amortization means. So the government pays for them by a credit on the taxpayer's tax. In that event the government is justified, in my opinion, in taking those cars away and selling them. If they do that, then we get some salvage value, do we not? I think we are perfectly justified in doing it.

Mr. TANDROW. But, Senator, that is on the presumption that the amortization allowance would pay for the investment in those cars.

The CHAIRMAN. It does, because it was perfectly plain that in the amortization of those cars, the example that Mr. Manson used, the entire amount on a certain number of cars was allowed. All that was not being used was allowed.

Mr. TANDROW. That might be very true, but from an ultimate tax standpoint, the statement that so much amortization was allowed means absolutely nothing, for the reason that amortization is only a deduction from gross income in order to arrive at net income.

Just as an example, assume that a taxpayer was allowed amortization of $100. That $100 is treated as a deduction from gross in-

come on his tax return. We will say that he is in a 10 per cent bracket or 12 per cent bracket——

Mr. MANSON. This happened to be an 80 per cent bracket.

Mr. TANDROW. Yes.

The CHAIRMAN. Well, use your illustration to see how it works.

Mr. TANDROW. I can cite an example with reference to the use of 80 per cent. The investment is $100, or, we will say the investment is $200. Amortization has been allowed in the amount of $100. That is treated as a deduction against gross income. Carrying that down into the net income, you have 10 per cent for your net income to be paid in taxes, so we will assume; so that the amortization allowance of $100, in effect, only means that the taxpayer is granted cash release in the amount of $10.

The CHAIRMAN. Then, the Government has a ten dollar investment in that event?

Mr. TANDROW. It has a ten dollar equity.

The CHAIRMAN. Then, it is entitled to take that $10 away. It has paid it, and it is entitled to do that, is it not, and salvage it, and get the salvage and put it back into the Treasury? I do not contend that the entire allowance that you deduct from gross income is salvage, and neither do counsel. They do contend, however, that there is a salvage value, and the Government has not received credit for that salvage value.

Mr. TANDROW. Well, you might have an element or factor of salvage value.

The CHAIRMAN. That is all we are contending for.

Mr. TANDROW. But to apply such a method to the computation of amortization would be almost impossible, from an accounting standpoint. You would have a system of accounts that would be so involved that the application and consideration of this salvage factor would cost more than the recovery.

The CHAIRMAN. I think, in view of the fact that the Government has allowed $600,000,000 or more in amortization, there must be some salvage somewhere in that $600,000,000 that belongs to the Government, and which the Government could take and put back into the Treasury.

Senator KING. It is more than $600,000,000, covering those years.

The CHAIRMAN. Well, I am taking the figures presented by counsel.

Mr. MANSON. Up to date it is $562,000,000, but it will probably run something over $700,000,000.

Senator KING. I think it will be more than that.

The CHAIRMAN. The actual figures are in the record.

Senator KING. I have some figures showing that it is in excess of that.

Mr. MANSON. My point is that it is a very simple matter to determine the salvage value to deduct the salvage value from the amount to which you apply the amortization percentage.

The CHAIRMAN. Yes.

Mr. TANDROW. There are no provisions in the regulations for procedure of that kind.

Mr. MANSON. That is where the regulations are defective.

The CHAIRMAN. We do not admit that the regulations are correct.

Mr. TANDROW. Then the determination of salvage value would be another very uncertain factor.

The CHAIRMAN. I appreciate that, but when you have specified the items, as in the car example presented by Mr. Manson, I think that is the proper way to arrive at it. It may be difficult where a tool or plant is only in part use. There would be some difficulty then to segregate the salvage value, but certainly, in the car example, you would have no difficulty in fixing the salvage value. You might even take it away and sell it.

Mr. MANSON. Even if you reduced it to scrap value, the scrap value of this $562,000,000 worth of material would be a very considerable item.

The CHAIRMAN. Of course, some of it you can not scrap because you are using it probably one-tenth of the time.

Mr. MANSON. Yes; but what I mean is that there is scrap value that can be realized.

The CHAIRMAN. Was not the scrap value considered in the case of the amortization of the gun plant of the Steel Corporation?

Mr. MANSON. Oh, where you discard the whole business.

The CHAIRMAN. Yes.

Mr. MANSON. The point I am making is this——

The CHAIRMAN. Would you not credit it when the entire plant is dismantled?

Mr. MANSON. Surely.

The CHAIRMAN. You get salvage value?

Mr. MANSON. Yes, where the taxpayer discarded the whole thing, the amount of amortization that he is allowed is always less than the amount that he is allowed if he keeps it, and the difference is the salvage value. Take the case of those cars; if he would sell those cars, he would receive less amortization by the amount that he sold them for.

The CHAIRMAN. As a matter of fact, he keeps them to keep up his equipment or facilities?

Senator KING. Mr. Witness, for my own information, have you not, in making your investigations for the purpose of levying taxes, allowed the taxpayer too much, upon the theory that he had greater capacity than production, ignoring the plan that every prudent business man and manufacturer follows, namely, in having excess capacity over production, as a margin, all the way from 10 to 25 per cent?

Mr. TANDROW. In the handling of this Steel Corporation case, that has been recognized.

Senator KING. Have you not ignored it in most of your cases? I have been told that in a number of cases the Department and the bureau have given the taxpayer too much credit, growing out of that situation.

Mr. TANDROW. As a general proposition, Senator, I would say that that is not a correct statement of the facts, for the reason that in a majority of cases our capacity is taken from a theoretical estimated capacity, but the maximum production accomplished in any one year. In the steel case, that was true. The allowance, I believe, of 20 per cent, was made to cover the excess capacity, measured upon the relation of an average production during the pre-

war years as compared with the capacity during the prewar years. That was reflected over into the year 1921.

The CHAIRMAN. That has been made very plain in the record by counsel, Senator, in the Steel Corporation case.

Senator KING. Yes; but I am speaking generally.

Mr. MANSON. I would call attention to the fact that it was made plain that when that margin was allowed, it was not a margin to take care of the peak years, but it was a margin that was necessary to take care of fluctuation from month to month, and that the very process of averaging the years 1921, 1922, and 1923 necessarily eliminates capacity sufficient to take care of the peak year.

The CHAIRMAN. Mr. Nash, have you any other engineer that you want to put on now?

Senator KING. Mr. Manson, have you any question that you would like to ask the witness?

Mr. MANSON. No; I do not care to ask him anything.

Mr. NASH. If Mr. Tandrow has finished, I would like to say that Mr. Manson asked yesterday as to the present condition in the Bureau of the metal cases, principally copper, I believe.

Mr. MANSON. I wanted to know what disposition is to be made of copper and silver, for the reason that we have made an investigation, taking all of the time of one man for two months, and we are ready to make a report to the committee; but we learned orally that the commissioner contemplated assessing the tax upon the basis of a reassessment. That was made in the copper——

The CHAIRMAN. You mean a revaluation?

Mr. MANSON. A revaluation of copper, and that he contemplated ordering a revaluation of silver. Of course, we do not want to try out a moot question here, and if the revaluation of copper mines is to be put into effect in the shape of an additional assessment, we would like to know it, and if he intends to order a revaluation of the silver mines, we do not want to bring a lot of data before the committee for the purpose of showing that he should do it. That is the thing I wanted.

Mr. NASH. I would like to have Mr. Greenidge take the stand and tell the committee just what the position of the copper cases is.

TESTIMONY OF MR. S. M. GREENIDGE—Resumed

Mr. GREENIDGE. The present condition of the copper revaluation is this: Over 90 per cent of the work has been done in conformity with the secretary's order of December 11, 1922. The chief of the nonmetals section informed me this morning that there were only two cases among the larger ones which were not yet completed, but which are nearing completion.

Senator KING. Pardon me. You would not call copper "nonmetal," would you?

Mr. GREENIDGE. Oh, no; I am talking about copper.

Senator KING. You said the chief of the nonmetals section.

Mr. GREENIDGDE. I was in error then. I meant the metals.

Senator KING. Yes.

Mr. GREENIDGE. The chief of the consolidated audit section told me that, speaking in an offhand way, he would say that about 50 per cent of the companies affected by this revaluation had already

been notified of the proposed changes in tax liability because of this revaluation order; and the head of the corporation audit division informed me that no stop in the procedure of notifying taxpayers of the proposed additional tax had been made in his division, so that he was sure that normal progress was being made on such cases as had been revalued.

Is that a sufficient answer to your question?

The CHAIRMAN. Does that answer it?

Mr. MANSON. As to copper; yes.

Mr. NASH. Mr. Greenidge, for what period have these assessment letters been going out, do you know?

Mr. GREENIDGE. I could not answer that offhand, but it has been months, because the first protest that I have knowledge of was in the spring of last year, I think.

Mr. NASH. The revaluations, then, are being protested by the taxpayers?

Mr. GREENIDGE. Oh, yes.

Mr. NASH. I just want to bring out the point to the committee that I believe these letters are going through the usual procedure, as prescribed in the 1924 act, and that each of these taxpayers will have the right of appeal to the Board of Tax Appeals, before the Commissioner can make the assessment.

The CHAIRMAN. Then, this answer, Mr. Manson, satisfies your inquiry with regard to the copper situation?

Mr. MANSON. Just a minute. Do I understand that that is just a notice of what the reassessment is, or is it an assessment of the tax?

Mr. GREENIDGE. A revaluation has been made and a proposed assessment has been figured on that revaluation, and the taxpayer has received the customary notice from the auditing division of the proposed additional tax liability.

The CHAIRMAN. At our next hearing, could you bring us down a copy of one of those letters that you are sending out, so that we can get a line on it?

Mr. GREENIDGE. Certainly, sir.

Mr. NASH. Mr. Chairman, there is a considerable difference between this letter and the actual assessment.

The CHAIRMAN. I understand, but I wanted to see what you are sending out.

Mr. NASH. The letter is just a formal notification of change in tax liability, and is a copy of the computation, showing how we arrived at a certain figure. It also notifies the taxpayer that he has a right to protest and appeal in case he does not agree with it.

Senator KING. It shows the increase in tax?

Mr. NASH. Yes; it shows the exact result in figures.

The CHAIRMAN. Will you bring us down a copy in one of these large cases?

Mr. NASH. Yes, sir.

The CHAIRMAN. How about silver?

Mr. GREENIDGE. Now, the situation as to silver——

Senator KING. Does that include lead and zinc?

Mr. GREENIDGE. No, sir; it does not.

The CHAIRMAN. Will you just tell us what the bureau is doing in connection with silver mines?

Mr. GREENIDGE. The bureau is now considering the extent to which the order for revaluation of the silver mines must be decided upon.

The CHAIRMAN. Has the order been issued for the revaluing of silver mines?

Mr. GREENIDGE. It was ordered contemporaneously with the copper order, sir.

The CHAIRMAN. In December, 1922?

Mr. GREENIDGE. In December, 1922, and it was withdrawn at a later date, because of the stupendous task that was present. The silver producers have not been invited to Washington for conference as to a proposed action which would so vitally affect the industry and the allied industries, with the view to, at some later date, reopening the matter, when the copper situation was fully gone into and decided upon. That has never been done, the legality of the Secretary's right to issue this order having now been entirely established.

The CHAIRMAN. Have you any other question, Mr. Manson?

Mr. MANSON. No.

Senator KING. What are you doing about zinc mines?

Mr. GREENIDGE. They are not to be revalued.

Senator KING. And lead mines?

Mr. GREENIDGE. They are not to be revalued; their prices are so close.

Senator KING. When you say silver mines, do you mean silver mines where there is nothing but silver produced? Are those the only ones?

Mr. GREENIDGE. No; it would mean all mines in which silver is produced.

Senator KING. Including copper?

Mr. GREENIDGE. Yes; just as the copper revaluation order will include all mines in which copper is produced.

Senator KING. It would not include zinc mines in Missouri?

Mr. GREENIDGE. Very little silver, I think—insignificant, if any, and the same is true of the Tri-State District of Oklahoma and Kansas.

Senator KING. Have you finished, Mr. Nash?

Mr. NASH. I just want to ask Mr. Greenidge one more question.

The CHAIRMAN. Do you know, or do you have the information whether or not cases involving prior years are under waiver, so that the interests of the Government are protected?

Mr. GREENIDGE. Oh, yes; that has all been taken care of.

The CHAIRMAN. The Government is entirely protected?

Mr. GREENIDGE. Yes.

Mr. NASH. Yes.

The CHAIRMAN. Before adjourning, I wish to announce that Mr. Manson desires some time in which to prepare some further cases applying to the income tax unit. We have some things ready pertaining to the prohibition unit. Those matters have been prepared, and they will be presented to the committee to-morrow morning at 10.30. You may notify your representatives interested in that to come down here at that time, Mr. Nash.

Mr. NASH. Yes, sir. Mr. Chairman, before we close, Senator King asked me yesterday what was the amount of the refund in the Cli-

max Fire Brick Company case, which was under discussion yesterday.

Senator KING. Yes.

Mr. NASH. For 1917, $1,610.56 was refunded; for 1918, $18,416.47.

Senator KING. That has actually been paid back?

Mr. NASH. That was paid back, and for 1919, an aggregate of $390.82 was applied against the 1923 tax so that there was actually paid back to them about $20,000.

The CHAIRMAN. And there is still some pending, is there?

Mr. NASH. No, sir; the case is closed.

Senator KING. So that if you decide that you have made an error, we are out?

Mr. NASH. The statute has not closed on the year 1919. There may be waivers on 1917 and 1918.

The CHAIRMAN. The committee will adjourn until to-morrow morning at 10.30 o'clock, at which time we will take up matters affecting the prohibition unit.

(Exhibits presented by Mr. Manson and Mr. Hartson are here printed in full, as follows:)

EXHIBIT A-1

ENGINNERS' SUMMARY REPORT (WHOLE CLAIM)—UNITED STATES STEEL CORPORATION AND SUBSIDIARIES COMPANIES.

According to statement appearing in Schedule A-19 as filed with the 1918 return of the above taxpayer, the total aggregate amount which the United States Steel Corporation and its subsidiary companies calculate they will be entitled to deduct as amortization under the provisions of the revenue act of 1918, is $75,628,027.11.

The total expenditures made from April 6, 1917, to December 31, 1918, on which cost amortization is claimed, amount to $183,548,399.52. The estimated postwar value to the corporation of these additions and facilities is indicated as $106,335,260.82. The difference between these sums, or $77,213,138.70, is therefore the amount to be written off. This amount has been reduced by two items:

(1) One of $178,379.57, being in the words of the taxpayer "proportion of same to reflect allowance for group one, or transportation properties, which may possibly not be for account purposes defined by the law."

(2) By $1,406,732.02, being the amount already written off on the books of this corporation through their depreciation account.

The only explanation of the method of arriving at the amount to be amortized on the special war facilities is given on the first page of Schedule A-19 under the head of "Postwar investment value."

It is said: "The amount shown in the foregoing summary for the postwar investment value to the corporation and its subsidiaries represents the estimates by its officers in various positions qualified to express opinions and facilities of the respective companies. It represents their judgment and opinion of the value of the improvements for investment purposes under what they anticipate and believe postwar conditions will normally be, and the amount of investment value upon which the property can reasonably be expected to

earn the average rate of return obtained from the business of the character to which it is devoted.

"The amortization schedules submitted herewith were prepared in accordance with the provisions of the original Regulations 45, especially Article 182 thereof, i. e., the total amount of amortization was estimated on the basis of the difference between the original cost of the additions, etc., made on and after April 6, 1917, for buildings, machinery and other facilities constructed, erected, installed or acquired for or in connection with the production of articles contributing to the prosecution of the present war, and their value at the close of the amortization period (*a*) for sale, or (*b*) for use, immediate or prospective, as part of the plant or equipment of the going business, whichever value was larger, less any amounts deducted or deductible for wear, tear, obsolescence and loss. The corporation respectfully submits this is the correct basis upon which 'the reasonable (amount of) deduction for the amortization, etc.' as specified in the law should be arrived at." This statement is the basis for computing amortization.

On April 22, 1920, Mr. De La Mater, then chief of the engineering subsection, called upon Mr. W. J. Filbert, comptroller of this corporation, for the purpose of discussing with him various features of their amortization claim, with special reference to the basis upon which they established the "value in use" of the property on which amortization is claimed. The following is quoted from Mr. De La Mater's report under date of April 24: "He, Mr. Filbert, said that during the emergency every one, as well as the Government, thought of values in comparison with pre-war values and that the only basis during that time for a consideration of value was by such a comparison with values as they existed previous to the war. Upon the ending of the emergency and entering upon peace-time pursuits, it has been thought that there would be immediate readjustment of values approaching somewhat to those existing previous to the emergency. Values did not recede from those prevailing during the emergency as expected, and have not as yet given any indication of so doing. Instead, the values of most commodities have advanced beyond the prevailing figure during the emergency. As the result, therefore, Mr. Filbert explained it had been necessary for the officials of the corporation to estimate what they believed to be a fair value at some time ahead when values will assume a normal plane. He explained that he did not believe prices would ever reach the plane which existed previous to the war, but that he did believe that they would assume at some future time a figure considerably below the present scale. He stated that in estimating the probable future value they had taken the pre-war values as a basis.

"The facts as developed by the engineers' investigation do not bear out the statement that the amortization in each instance "represents the estimates of the officers in various positions qualified to express opinions in this respect, as to the individual items of additions and facilities of the respective companies."

The judgment and opinion of the officers of this corporation may have been the factors or basis for the amount of amortization taken in a very few instances, but this can not be said of the many thousands of items comprising this claim, as is shown by the fact, developed during the engineers' investigation, that the preparation of this claim, after certain policies had been established by the officers of this corporation, was purely a mechanical process.

Whatever name might be given to the values at which this corporation wishes to carry these facilities, the fact remains that they have reduced these facilities to an estimated pre-war cost.

The method of computing the amortization to be written off is as follows:

There were prepared by the respective companies, tables of relative labor costs, as named in some instances, or "Tables compiled for calculating 'usable value of construction work, through a calculation of cost above pre-war period conditions, based on increase in labor rates," as named in other instances. In general these tables are made up by showing the various labor costs from time to time during the period from 1914 to the end of 1918, as a percentage of the average labor costs for the three-year period, 1911, 1912, and 1913, which latter average cost is used as a base, or 100 per cent. These tables differed somewhat for the different companies.

With the above table as a guide, the auditors or clerks who were directly responsible for the amortization computation took the actual cost of a facility under consideration, noted the date of purchase, then saw what percentage

increase in labor had taken place to that date (as compared with the base) and applied this percentage as a factor to the actual cost of the facility with which they were working.

To illustrate further, we will take the table of relative labor costs as used by the American Steel & Wire Co. of New Jersey. The average cost of labor during the "pre-war period" (meaning 1911, 1912, and 1913), was considered as 100 per cent. From May 1, 1916, to January 1, 1917, the average labor wage showed a 30 per cent increase. The factor for this period as appearing on the table is 130 per cent. From October 1, 1917, to May 1, 1918, the average labor wage was 173 per cent of the base. We will take as an illustration an installation which occurred, say any time from October 1, 1917, to May 1, 1918, which cost, let us assume, $173,000. Then to get the estimated pre-war cost this $173,000 was divided by the factor 173 per cent (taken from the table), which gives a pre-war cost of $100,000. The difference then between the actual cost of this facility ($173,000) and the calculated pre-war cost ($100,000) was the amount which was claimed as amortization. In general, the cost of a facility in any particular period was divided by the relative labor cost of that period in order to arrive at a pre-war cost, and amortization was set up as a difference between the actual cost and the pre-war cost so obtained.

There has been no evidence submitted to prove that the cost of construction of a facility or commodity of any kind is proportional to the cost of the labor component, much less to show that the cost is proportional to the wage scale in vogue with the United States Steel Corporation. If it had been proved that there was a fixed relation, at this time, between the selling price of an article and the wage rate of the labor entering into its fabrication, we might safely assume that this relationship held in the pre-war period. This can even be admitted in so far as it affects the merits of this case.

We may assume that the United States Steel Corporation have firmly established pre-war values for all the facilities or expenditures on Schedule A–19. To use these values as a base for claiming amortization is contrary to the provisions of the Articles of Regulations 45 which are pertinent thereto, and their claim for amortization can be immediately disallowed for that reason.

Physical inspections of the properties of this corporation which are included in this claim were made by Mr. J. J. W. Van Schaick and Mr. F. Fischer, engineers from this section. The findings of these engineers are contained in separate reports on file with the papers in this case. There is attached hereto summary sheets showing all of the subsidiary companies of this corporation which have claimed amortization, the amount claimed in each case, the amount allowed, and the engineer who is charged with the recommendation.

It may be stated here, in general, the principal factor considered by the engineers of this section in a development of "the estimated value of the property to the taxpayer in terms of its actual use or employment in his going business," as provided by article 184 (amended) Regulations 45 (revised), is a determination of the actual physical usage of the facilities in the taxpayer's going business. The percentage thus found is applied against the original cost. The difference then between the utility value found in this way and the original cost is the amount which is usually recommended to be allowed as amortization.

The engineer's investigation disclosed that, for all practical purposes, all of the United States Steel Corporation acquirements subsequent to April 6, 1917, were 100 per cent in use.

It is recognized by the writer that certain special factilities, acquired by some of the properties of the United States Steel Corporation subsidiary companies are as a matter of fact not in full use and amortization on these facilities should, in equity, be allowed. The taxpayer, however, has not attempted to set up "A value in use" for these facilities, such as can be recognized by this department. The writer can see no acceptable relation between the "post-war investment value," arrived at by reducing the properties to a pre-war cost, and an "estimated value of the property to the taxpayer in terms of its actual use or employment in his going business." Until such time as the taxpayer establishes a value in use for these special facilities as provided by the Regulations, it is recommended that total amortization be disallowed.

On Schedule A–19 there have been found five items which have been marked as having only salvage value.

The plants wherein these items are found are as follows:

The American Steel and Wire Company (North Works), "Equipment airplane wires," cost $11,120.53; salvage, $350; amortization claimed, $10,770.53. "Stranding equipment telephone wires," cost, $51,060.86; salvage, $7,420; amortization claimed, $43,640.86.

Donora Zinc Co., "Niter tanks for muriatic acid," cost, $658.79; salvage, $150; depreciation, $26.35; amortization, $482.44. "Lead refining furnace," $762.28; salvage, $100; amortization, $662.28.

The next item is found under the Fairfield Steel Co. schedule. "For manufacturing of concentrated ammonical liquor," cost, $4,710.20; depreciation, $188.41 (no salvage); amortization, $4,521.79.

Total cost of the facilities enumerated above is $68,312.66, on which amortization is claimed in the amount of $60,077.90, the difference being either salvage or amount written off previously as depreciation.

These items have not been checked by the engineers. It is not known whether the salvage values noted are estimated or have been determined by actual sale. If they have been sold the amortization will be the difference between the cost depreciated to December 31, 1917, and the amount received in salvage; same to be determined by the auditor. If they have not been sold, it is recommended that amortization be disallowed for the purpose of this report.

Depreciation should be allowed by the auditor on all items on which amortization has been disallowed.

Summary of amortization claim of the United States Steel Corporation and subsidiary companies

Company	Claim	Engineer
Manufacturing companies:		
American Bridge Co	$379,388.42	Fischer.
Gary gun-forging plant	1,401,744.44	Fischer, V. S.
American Sheet & Tin Plate Co	2,144,673.91	Fischer.
American Steel & Wire Co., Alabama	32,976.38	Van Schaick.
American Steel & Wire Co., New Jersey:		
Cleveland district	2,576,277.05	Fischer.
Illinois district	317,877.62	Van Schaick.
Other districts	2,525,994.26	Office.
Carnegie Steel Co., New Jersey	4,772,153.53	Fischer.
Carnegie Steel Co., Pennsylvania	5,850,777.91	Do.
Chickasaw Shipbuilding Co	4,746,175.41	Van Schaick.
Clairton By-Product Coke Co	6,048,737.68	Fischer.
Clairton Steel Co	135,489.03	Do.
Donora Zinc Co	105,006.32	Office.
Fairfield Steel Co	7,360,774.04	Van Schaick.
Illinois Steel Co	3,003,344.35	Do.
Indiana Steel Co	3,647,805.49	Do.
The Lorain Steel Co	36,239.27	Office.
Minnesota Steel Co	524,922.42	Van Schaick.
National Tube Co	1,297,667.10	Fischer.
The National Tube Co	2,771,589.90	Do.
Sharon Tin Plate Co	665,762.48	Do.
Tennessee Coal, Iron & Railroad Co	2,489,931.39	Van Schaick.
Union Steel Co	2,012,597.28	Fischer.
Coal, coke, and natural gas companies:		
Carnegie Natural Gas Co	882,005.48	Do.
H. C. Frick Coke Co	3,332,881.65	Do.
Hostetter Connellsville Coke Co	22,511.41	Do.
National Mining Co	32,112.47	Do.
Republic Connellsville Coke Co	71,299.11	Do.
Sharon Coal & Limestone Co	20,890.08	Do.
Sharon Coke Co	125,462.62	Do.
U. S. Coal & Coke Co	3,268,264.77	Do.
U. S. Fuel Co	745,437.21	Van Schaick.
Iron ore companies:		
Chapin Mining Co	1,368.16	Office.
Lake Superior Consolidated Iron Mines	122,373.31	Do.
Minnesota Iron Co	104,172.22	Do.
Oliver Iron Mining Co	1,077,144.50	Van Schaick.
Limestone companies:		
Keystone Limestone Co	13,039.96	Fischer.
Pittsburgh Limestone Co	78,746.36	Office.
Transportation companies:		
Group 1—		
Bessemer & Lake Erie R. R. Co	380,092.21	Do.
Duluth & Iron Range R. R. Co	324,050.22	Van Schaick.
Duluth, Missabe & Northern Ry. Co	1,528,742.14	Do.

Summary of amortization claim of the United States Steel Corporation and subsidiary companies—Continued

Company	Claim	Engineer
Transportation companies—Continued.		
Group 2—		
Pennsylvania & Lake Erie Dock Co	$1,781.27	Fischer.
Pittsburgh & Conneaut Dock Co	229,748.86	Do.
Pittsburgh Steamship Co	161,473.06	Van Schaick
Group 3—		
Birmingham Southern R. R. Co	74,501.65	Office.
Chicago, Lake Shore & Eastern Ry. Co	381,766.24	Van Schaick.
Donora Southern Ry. Co	30,215.41	Office.
Interstate Transfer Ry. Co	7,420.79	Van Schaick.
Lake Terminal R. R. Co	39,792.47	Fischer.
McKeesport Connecting Ry. Co	22,686.94	Do.
Mercer Valley R. R. Co	934.68	Do.
Monongahela Southern Ry. Co	1,709,729.32	Do.
Newburgh & South Shore Ry. Co	148,894.89	Do.
Spirit Lake Transfer Ry. Co	83,917.12	Van Schaick.
Union R. R. Co	599,963.98	Fischer.
Youngstown & Northern Ry. Co	86,692.58	Do.
Housing companies, etc.:		
Carnegie Land Co	255,964.30	Fischer.
Chickasaw Land Co	1,418,419.79	Van Schaick.
Chickasaw Utilities Co	223,612.12	Do.
Clairton Land Co	814,586.75	Fischer.
Conneaut Land Co	838,645.78	Do.
Connequenessing Bridge Co	12,633.72	Do.
Fairfield Utilities Co	26,573.03	Van Schaick.
Morgan Park Co	166,801.39	Do.
Sharon Land Co	298,064.80	Fischer.
Shelby Land Co	194,588.80	Do.
Tennessee Land Co	999,477.41	Van Schaick.

EXTRACT FROM REPORT

Property cost on which amortization is claimed	$183,548,399.52
Property cost on which depreciation is allowed	183,548,399.52
Amortization claimed	75,628,027.11
Amortization disallowed	75,628,027.11

It is recommended that amortization be totally disallowed the United States Steel Corporation and subsidiary companies and that the chief of the consolidated return subdivision be so advised.

Submitted December 6, 1920.

F. FISCHER, *Engineer.*

Approved.

S. T. DE LAMATER,
Chief of Section.

F. FISCHER,
Acting Chief of Engineers.

Physical inspections of the properties of this corporation which are included in this claim were made by Mr. J. J. W. Van Schaick and Mr. F. Fischer, engineers from this section. The findings of these engineers are contained in separate reports on file with the papers in this case. There is attached hereto summary sheets showing all of the subsidiary companies of this corporation which have claimed amortization, the amount claimed in each case, the amount allowed, and the engineer who is charged with the recommendation.

It may be stated here, in general, the principal factor considered by the engineers of this section in a development of "the estimated value of the property to the taxpayer in terms of its actual use or employment in his going business," as provided by article 184 (amended) regulations 45 (revised), is a determination of the actual physical usage of the facilities in the taxpayer's going business. The percentage thus found is applied against the original cost. The difference then, between the utility value found in this way and the original cost, is the amount which is usually recommended to be allowed as amortization.

The engineers' investigation disclosed that, for all practical purposes, all of the United States Steel Corporation acquirements subsequent to April 6, 1917, were 100 per cent in use.

EXHIBIT A-2

FIRST ENGINEERS' REPORT CHICAGO AND DULUTH DISTRICT—UNITED STATES STEEL CORPORATION—SUMMARY

All the figures composing the cost of the various properties of the subsidiary companies of the United States Steel Corporation embodied in this report depend upon verification by the consolidated section auditors who are now at work on the various claims making an audit under the direction of Mr. William J. Forester.

The following subsidiary companies of the United States Steel Corporation were examined by me between May 3, 1920, and June 19, 1920, at which last date I called on the revenue agent, Mr. Chapin of Chicago, telling him of my leaving his division.

Subsidiary companies

	Cost of property	Amortization	
		Claimed	Allowed
1. Illinois Steel Co., Milwaukee works, Milwaukee, Wis. Examination May 5, 1920.	$380,906.00	$174,714.32	0
2. Illinois Steel Co., Joliet works, Joliet, Ill. Examination May 6-7, 1920.	684,054.56	205,528.05	0
3. American Steel & Wire Co., Waukegan works, Waukegan, Ill. Examination May 10-11, 1920.	344,313.68	145,485.32	0
4. American Steel & Wire Co., Rockdale works, Joliet, Ill. Examination May 13, 1920.	63,714.86	30,398.61	0
5. American Steel & Wire Co., Scott Street works, Joliet, Ill. Examination May 13, 1920.	145,447.51	60,557.09	0
6. American Steel & Wire Co., DeKalb works, DeKalb, Ill. Examination May 12, 1920.	195,870.45	66,838.66	0
7. United States Fuel Co., Middleforks mine, Breulois, Ill.; Bussey ville mine, Westville, Ill. Examination May 15-16, 1920.	1,559,197.74	742,494.87	0
8. E. J. & E. Ry. Co., in and about Kirk yard and Gary plant, Gary, Ind. Examination May 18, 19, 20, 21, 1920.	742,211.43	381,786.24	0
9. Indiana Steel Co., Gary works, Gary, Ind. Examination May 25, 1920.	14,072,307.99	3,647,805.49	0
10. Illinois Steel Co., South works, Gary, Ind. Examined May 26, 1920.	8,852,674.89	2,663,101.99	0
11. American Bridge Co., Gary works, Gary, Ind. Examination June 4 to 12, 1920.	5,705,051.13	1,595,096.46	0
12. Oliver Iron Mining Co., Duluth, Minn. Examination June 4 to 12, 1920.	2,723,860.62	1,078,144.50	0
13. Duluth & Iron Range R. R., Duluth, Minn., Two Harbors, Minn. Examination June 4 to 12 and 15.	771,996.94	324,050.22	0
14. Inter State Transfer Ry., Duluth, Minn. Examination June 4 to 12.	22,635.52	7,420.79	0
15. Pittsburgh Steamship Co., steamers Williams and Pargay. Examination June 15, 1920.	632,828.49	44,457.23	0
16. Duluth, Misaba & Northern Ry. Co., Duluth, Minn. Examination June 6 to 13.	4,205,500.17	1,528,742.14	0
17. Spirit Lake Transfer Co., Duluth, Minn. Examination June 6-15.	226,022.20	83,917.12	0
18. Minnesota Steel Co., Duluth, Minn. Examination June 16-17.	1,669,041.95	524,922.42	0
19. Morgan Park Co., Duluth, Minn. Examination June 18, 1920.	629,327.91	166,801.39	0
Total	43,630,573.04	13,472,262.91	0

SUMMARY REPORT ON AMORTIZATION CLAIM OF UNITED STATES STEEL CORPORATION SUBMITTED NOVEMBER 23, 1920

All the properties investigated by me in the Chicago and Duluth districts under authority of my assignment of April 20, 1920 were working to full capacity at the time of my visits to the various plants.

The steel and wire mills were taking on all the help they could get.

The No. 6 dock at Duluth and the No. 2 dock, at Two Harbors, were rushed to get ore to lake steamers to be taken to the lower lake ports before winter sets in.

The steamers all were carrying as much ore on each trip as the depth of water in the Sault Ste. Marie would permit them to.

The wire plants were putting forth every effort to produce all the output they could, as they were sadly behind with orders, and were taking on men whenever they could get them.

The bridge company was way behind with their orders and the same condition prevailed as at other plants.

The Gary plants were all working at top speed, with much new building going on to add to its already enormous plants.

The Minnesota Steel Plant was working to capacity.

The housing proposition at Morgan Park was very active, building new houses of the finer class as a factor in inducing the best class of laborers and technical men to work for them. All these activities in these various directions are indicative of the policy of the taxpayer to expand and extend his property in every branch.

All the extensions, additions and betterments of the various companies between the dates of April 6, 1917, and December 31, 1918, were made along the general lines of expansion of the company to take care of its ever increasing volume of business. When the law under which we are collecting taxes became effective and the above dates set, the various companies went back over their books picking out the various items of construction and betterments and set those amounts up for amortization in the claim presented.

The same general plan of percentages are taken by all companies to determine the amount of this amortization.

(1) The cost of property on which amortization is claimed is $43,630,573.04.

(2) The cost of property on which amortization is allowed is zero.

(3) The cost of property on which depreciation should be allowed is $43,630,573.04.

Amortization claimed, $13,472,262.91.

Amortization allowed, none.

Amortization disallowed, $13,472,262.91.

It is my recommendation that the claim of the taxpayer for amortization amounting to $13,472,262.91 be disallowed.

Assigned to this investigation, April 20, 1920.

Date of departure, May 2, 1920.

Date of investigation, May 3, 1920, to June 19, 1920.

Date of return to other duties, June 20, 1920.

Submitted October 11, 1920.

I. J. W. VAN SCHAICK,
Valuation Engineer.

EXHIBIT A–3

FIRST ENGINEER'S REPORT, BIRMINGHAM DISTRICT

All the properties investigated by me in the Birmingham district under authority of assignment of March 30, 1920, were working to full capacity at the time of my visit to the various plants of the taxpayer.

The steel mills were all running full time and were taking on all help as they could get it.

All the housing propositions are very active to provide additional accommodations for more workers. The fine class of homes built with all the conveniences is a great factor in inducing the best class of laborers and technical men to work at the various plants.

The ship-building plant is a model in every way and in full operation, with all houses, provided for them by the Chickasaw Utilities Co., filled with families of the workers.

All the activities in this direction are indicative of the policy of the taxpayer to expand and extend his property in every branch.

Summary of United States Steel Corporation claims investigated

	Cost	Amortization
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.	$4,621,790.40	$2,489,931.39
Tennessee Land Co., Birmingham, Ala.	1,643,631.43	999,477.41
Chickasaw Ship Building Co., Chickasaw, Ala.	7,311,675.41	4,746,175.41
Chickasaw Utilities Co., Chickasaw, Ala.	358,348.40	223,612.12
Chickasaw Land Co., Chickasaw, Ala.	2,185,133.13	1,418,419.79
Fairfield Steel Co., Birmingham, Ala.	11,770,091.25	7,360,774.04
Fairfield Utilities Co., Birmingham, Ala.	41,985.38	26,573.06
American Steel & Wire Co., of Alabama	75,858.19	32,976.38
Total	28,008,513.59	17,306,939.57

(1) Cost of property on which amortization is claimed	$28,008,513.59
(2) Cost of property on which amortization is allowed	28,008,513.59
(3) Cost of property on which depreciation is allowed	28,008,513.59
Amortization claimed	17,306,939.57
Amortization allowed	None
Amortization disallowed	17,306,939.57

It is my recommendation that the claim of the taxpayer for amortization amounting to $17,306,939.57 be disallowed and that the consolidated return section be advised to that effect, and these findings should be incorporated in the complete report on this corporation.

Assigned to investigation, March 30, 1920.
Date of departure, April 2, 1920.
Date of investigation, April 5, to April 19, 1920.
Date of return, April 20, 1920.
Submitted April 30, 1920.

IRA J. W. VAN SCHAICK,
Valuation Engineer.

Approved:

S. T. DE LA MATER,
Chief of Engineers.

EXHIBIT A–4

CARNEGIE STEEL CO. & ASSOCIATED COMPANIES

[Engineer's report, Fischer, May 20, 1920, p. 15–17]

Product: Iron, open hearth, and Bessemer steel and finished products, and transportation companies and warehouse facilities in connection therewith.

Companies included:

Carnegie Steel Co. (proper), including Duquesne, Homestead, Bellaire, Mingo works, etc; Carrie, Lucy, Isabella, Niles furnaces, etc.; Union, Clark, Greenville mills, etc.

Clairton Steel Co.

Clairton By-Product Coke Co.

Carnegie, Clairton, Sharon, Conneaut Land Cos.

Monongahela Southern; Youngstown & Northern Railroad Cos., etc.

Pittsburgh & Conneaut Dock Co.

The nature of the extensions made during the war period is best stated by the following quotation from Engineer Fischer's report (p. 15).

"Mr. Campbell was very emphatic in his statement to the effect that all of the facilities under consideration of all the companies under his jurisdiction were all in use. He stated further that none had been discarded and that it was not proposed to discard any. He said that all the expansion had taken place directly along the lines of regular production."

Engineer Fischer recommended amortization be disallowed in full, page 16.

The character of some of the facilities on which amortization is claimed is summarized from the original claim of the company. Schedule A–19, pages 54 to 68.

Flue dust sintering plant: Completion of three open-hearth furnaces, construction started 1915; completed December 1917. New power plant at warehouse, 3 locomotive cranes, 500 steel coke cars, 1,250 steel hopper cars. Rebuilding and improvement of furnace 1, H. & G. Additions and improvements to crane facilities in No. 1 foundry. Renewal of iron and part of brick work in open-hearth furnaces Nos. 85, 87, 88, 89, and 90. Renewal of boilers with equipment. The land companies have been allowed no amortization.

It appears that all of the property is, as Mr. Campbell stated, regular equipment which would have been purchased in the regular expansion of the business. Further, it can be seen from the above that a great many reconstruction and replacement items are included in claim.

Summary of figures, Carnegie Steel Co. and associated companies

Originally claimed	$22,789,292.38
Revised claim	16,514,575.76
Allowed engineer's first report	None.
Allowed engineer's final report	9,664,179.37
Our approximate figure	2,129,117.88
Difference	7,535,061.49

UNION STEEL COMPANY

[Engineer's report, Fischer, May 20, 1920]

Consisting of Farrell steel works and furnaces, Farrell wire works, Denora steel plant, Denora wire plant, Mercer plant.

Products: Steel and wire.

Main improvements to plant consist of pulverizing coal plant, duplex plant, electric tractors, remodeling office building, new boiler installation, locomotive cranes, equipment for ore stock yards, reconstruction of bar and billet mill, two 10,000,000-gallon centrifugal pumps, 3 additional open-hearth furnaces.

The same remarks applying to Carnegie Steel Co. apply to this company; they were examined by the same engineer and facilities reported as being in full use and, as is seen, they include certain reconstruction costs.

Summary of figures, Union Steel Company

Originally claimed	$2,012,597.28
Revised claim	1,944,798.89
Allowed engineer's first report	None.
Allowed engineer's final report	1,136,386.14
Our approximate figure	289,243.75
Difference	847,142.39

ILLINOIS STEEL CO.

[Engineer's report, Van Schaik. Inspected May 5 to May 26, 1920]

Consists of Milwaukee works (Wis.), pages 1 to 5: The amortized portion of this works is a dock and facilities. The main improvements consist of a dock wall and the installation of new unloading machinery. The wall is a replacement and the unloaders are necessary for the more economical and quicker handling of ores. The expansion is a result of policy adopted in 1916 as necessary. Engineer's first report shows all facilities in full use.

Joliet works (Ill.), pages 6–10: Product: Tie plates, bolts and nuts, and railroad spikes. The main improvements consist of benzol plant, trestle connecting blast furnace and converting department, 5,000 kilowatt turbogenerator, additional bolt and nut equipment, 15 tank cars, sewer system, rebuilding bundle conveyors. In regard to the above items, as the date of commencement of construction is principally in 1915, 1916, or early in 1917, it is evident that they were the result of the natural expansion of the business, except for rebuilding conveyors, which is evidently a replacement. The Engineer reported facilities to be in 100 per cent use.

South works, Gary, Ind., pages 54 to 61: Product: Steel and structural shapes. Main improvements consist of 39 buildings (in connection with

bloom mill, open-hearth plant, structural and plate mills), 11 boilers, metal mixer, improvements and alterations bloom mill No. 2, relining blast furnace, rebuilding trolley, etc. In regard to the above buildings, a number of same were started as far back as 1915, and the whole plan was evidently laid out at that time; the boilers were installed to use waste gases, and were an economy device not increasing production; many of the smaller items were replacements or extraordinary repairs.

The engineer reports all items in 100 per cent use. He further states that the bloom mill and structural mill both broke all records for production for the week ending March 22, 1920.

North works: Treatment of this item is omitted, as amount of final allowance is less than $1,000.

Gary Land Co.: Treatment of this item is omitted as we have not questioned small allowance made for lack of full data ($33,000).

Indiana Steel Co., Gary, Ind., pages 44 to 53: Product: Iron and steel, plates, etc. Main items: Additional buildings for blast furnace plants, open-hearth plants, plate mill, blooming mill, electric power station, merchant mills, tin plate plant, coke plant. Other items include benzol tank cars, installing and remodeling soaking pits, increasing capacity, and relining of blast furnaces Nos. 10 and 11.

In regard to above items, practically all the buildings were started in 1915 and 1916 and "were planned long before we were in the war." The other items are evidently at least partly replacements. The engineer reports all facilities in full use.

Summary of figures of Illinois Steel Co. and associated companies

Originally claimed	$6,661,753.87
Revised claim	9,396,805.05
Allowed engineer's first report	None.
Allowed engineer's final report	8,341,261.14
Our approximate figure	1,771,705.20
Difference	6,569,555.94

Conclusion: It appears from the engineer's first report that the facilities were in full use. We have, however, figured amortization in full on Gary Gun Plant, but conversion of same to other uses in 1923 should be investigated.

MINNESOTA STEEL CO., DULUTH, MINN. (INCLUDES MORGAN PARK CO.)

[Engineer's report, Van Schaick, June 16, 17, and 18, 1920.]

Products: Steel.

Main improvements as per engineer's original report, consist of benzol plant, boiler house extension, refractory plant for burning dolomite, locomotive crane, etc.

At date of engineer's visit, benzol plant was all in use, as well as the other items, and amortization was disallowed. The Morgan Park Co. was allowed no amortization, so this is omitted from consideration.

Summary of figures

Originally claimed	$691,723.81
Revised claim	1,349,830.07
Engineer's first report	None.
Engineer's final report	822,215.20
Our approximate figure	118,435.66
Difference	703,779.54

THE LORAIN STEEL CO.

Figures only on this are given, as amounts are small and same remarks applied to Carnegie Steel Co. are applicable.

Figures for Lorain Steel Co.

Original claim	$36,239.27
Revised claim	58,109.30
Allowed, engineer's first report	None.
Allowed, engineer's final report	39,800.23
Our approximate figure	22,688.81
Difference	17,131.42

UNIVERSAL PORTLAND CEMENT CO.

Consideration of this company will be omitted as we agree with findings.

Figures for Universal Portland Cement Co.

Originally claimed	None.
Revised claim	$70,643.03
Allowed engineer's first report	None.
Allowed engineer's final report	48,345.56
Our approximate figure	48,345.50
Difference	None.

NATIONAL TUBE CO. AND ASSOCIATE COMPANIES

Consists of National Tube Co., the National Tube Co., McKeesport Connecting Railway, the Lake Terminal Co., the Skelby Land Co., Connoquenessing Bridge Co.

Engineer Fischer's first report (about May 22, 1920) states in regard to above companies (p. 30):

"Information relative to the Continental Works, Pittsburgh, Pa., was received from Mr. Cushwa and was to the effect that all facilities on which amortization was claimed were in full use."

Also: "Mr. Moise stated that the condition at the Pennsylvania works was similar to the conditions to be found in all the other plants. In this particular instance all the facilities which had been acquired after April 6, 1917, were in full use."

The only item of this company which is entitled to amortization is certain facilities at the Christy Park works for the manufacture of torpedo air flasks. While the engineer's first report disallowed this, we have allowed amortization in full in making our approximate figure on this company.

Figures

Original claim	$3,471,215.25
Revised claim	5,311,187.40
First engineer allowance	None.
Final allowance	2,765,096.53
Our approximate figure	1,775,660.62
Difference	989,435.91

AMERICAN STEEL & WIRE CO.

Waukegan works.—Engineer's first report (pp. 11 to 16), Van Schaick, May 11, 1920.

Product: Drawn wire, springs, bale ties.

Main improvements: 10,000-kilowatt turbine, 72-inch boring mill. Remodeling pot annealing department and miscellaneous wire making machines. Of the above items the remodeling of the annealing department represents nearly one-half the claim; the other items appear to be all standard equipment.

Engineer reported all items in full use and disallows amortization.

Rockdale works.—Engineer's first report (pp. 17 to 20), Van Schaick, May 13, 1920.

Product: Drawn wire and woven wire fencing, including staples and nails.

Main improvements: Concrete loading platform, traveling crane, new floor warehouse, new floor netting department, sanitary unit, track connections, barb-wire fence machines.

All the items are reported by engineer to be in full use and amortization is disallowed. It is obvious that amortization of the items are improvements rather than facilities to increase capacity.

Scott Steel works.—Engineer's first report (pp. 21 to 23), Van Schaick, May 13, 1920.

Products: Nails.

Main improvements: Buildings and additions, concrete loading platform, rebuilding nail cleaning department, new floor No. 1 and No. 2 warehouse.

Engineers reported facilities in 100 per cent use and disallowed amortization.

De Kalb works.—Engineer's first report (pp. 24 to 27).

Product: Wire fencing.

Main improvements: General improvements and betterments to buildings.

Amortization is disallowed by engineer.

Alabama plant.—Engineer's first report (Vol. IV, p. 1 to 3, Pt. V), Van Schaick, April 13, 1920.

Products: Wire, nails, and fencing.

Main improvements: Sewer, pot-annealing furnaces, new stave mill, changing 6,600-volt transmission prom power station.

Quoting from engineer's report: "All the items in the taxpayer's claim were in use at the time of my visit to full capacity and will continue to be in use indefinitely."

Amortization is disallowed.

In regard to the other plants of this company, Engineer Frank Fischer submitted a report on the American Steel & Wire Co. of New Jersey and various other subsidiaries of this company on September 15, 1920. This investigation covers 11 plants and the engineer disallows amortization on the basis that they are either in full use or would be except for strike conditions in a few plants.

Figures

Original claim	$5,742,386.85
Revised claim	5,276,462.93
First engineer's allowance	None.
Final engineer's allowance	3,891,400.16
Our approximate figure	2,011,734.76
Difference	1,879,665.40

EDGAR ZINC CO., AMERICAN SHEET & TIN PLATE CO., AMERICAN BRIDGE CO.

The above three companies are omitted in this consideration as we have considered the amortization allowance as justified in the main or not subject to criticism from lack of detailed information.

The total allowance for amortization are as follows:

Edgar Zinc Co	$42,497.27
American Sheet & Tin Plate Co	2,507,746.57
American Bridge Co	2,400,599.51

TENNESSEE COAL & IRON R. R. CO.

See Engineer Van Schaick's report, Parts I, II, IV, and VI, covering this company and its subsidiaries, the Fairfield Steel Co., Fairfield Utilities Co., etc.

The Tennessee Coal & Iron Co., do a general mining business and iron and steel business combined with transportation facilities.

Main improvements consist of main equipment, water-work equipment, recarbonizing metal department, additional open-hearth furnace, new transmission line, construction of about 600 houses for employees, new structural, blooming, and plate mills at Fairfield, addition to benzol plant, etc.

Engineer reports all above facilities in 100 per cent use and disallows amortization.

He further states "the steel mills were all running full time and were taking on all the help as they could get it."

	Figures
Original claim	$14,893,856.93
Revised claim	17,286,385.05
Engineer's first allowance	None.
Engineer's final allowance	9,123,814.91
Our approximate figure	2,883,822.46
Difference	6,239,492.45

CHICKASHAW SHIPBUILDING CO.

Consideration of this company is omitted as we concede property of present allowance in principle.

Amount allowed, $9,349,630.89.

EXHIBIT B

[Extract from Report of H. A. Whitney, Carnegie Steel Co., Vol. III, United States Steel Corporation, Case 8175-0]

DERIVATION OF THE VALUE-IN-USE FACTOR FOR PIG-IRON PRODUCTION

The taxpayer's figures for pig-iron production for the years 1910, to 1915, inclusive, gives the total number of gross tons as 74,537,154. This represents a yearly average of 12,422,580 gross tons.

The engineers have prepared a diagram, inserted at the end of this discussion, on which is indicated the total production of pig iron in the United States for the year 1900 to 1921, inclusive, with the estimated production for the years 1922 and 1923. On the lower right-hand corner of the chart is indicated the taxpayer's production of pig iron in gross tons from the year 1910 up to and including the year 1921 with the engineers' estimate, and also the taxpayer's estimate of what the annual production for pig iron would be in the years 1922 and 1923.

From an inspection of each of these charted productions it is quite evident that the year 1916 was not a normal but was an abnormal year for the production of pig iron.

Inasmuch as the bureau has held that the post-armistice years 1919 and 1920 are abnormal production years, and as such should be eliminated from the engineers' computations for production, it is quite evident that, following in the same line of reasoning, the pre-war year 1916—which was the greatest producing year known in the history of the United States Steel Corporation and in the history of the United States in general, for pig iron—should also be eliminated.

In referring to the production chart of pig iron for the United States in general, it will be noted that there is a series of small circle marks—(A), (B), (C), (D), (E), and (F).

(A) indicates the average production of pig iron from the year 1900 to 1905, inclusive.

(B) indicates the average production of pig iron from the year 1900 to 1909, inclusive.

(C) indicates the average production of pig iron during the years 1900 to 1915, inclusive.

If a line be drawn from the top of the production curve for the year 1900 through the center of circle (C) to a line projected vertically from the 1915 curve of production as of December 31, the line so drawn will indicate the increase in production from the year 1900 throughout the series of years to the end of the year 1915.

AMORTIZATION REPORT, UNITED STATES STEEL CORPORATION.

Diagram showing the actual and the estimated production of pig iron from all the various facilities within the United States from the year 1900 to the year 1923, inclusive, and also the production of pig iron from the facilities under the control of the United States Steel Corporation from the year 1910 to 1923, inclusive.

The upper curve illustrates the production of the United States as a whole and the lower curve illustrates the production from facilities of the taxpayer. Should this line be projected through the series of years, 1916 to 1923, inclusive, it will indicate what the production of pig iron would have been had this series of years increased in production in the same harmonic ratio as was indicated from the year 1900 to the end of 1915.

(D) indicates the average production of pig iron, for the years 1906 to 1915, inclusive, and the line "G," projected from 1906 through (D) to (G') in 1923 is a tendency of increase over the war and postwar years 1916 to 1923, based on the pre-war years as noted above.

(E) indicates the average production of pig iron from the year 1910 to 1915, inclusive. The line (K—K') is projected from the top of the 1910 curve through (E) to the end of the year 1923, and in a like manner to the preceding examples, a continuation of the line (K—K') indicates through the postwar years what the increase in production would have been had the increase continued in a like ratio to that of the pre-war years.

In referring to the taxpayer's charted production, it is noted that the average annual pre-war production for the years 1910 to 1915, inclusive, amounts to 12,427,000 gross tons of pig iron annually, and is indicated on the diagram at circle (F). If a line be projected from J at the top of the 1910 projection through (F) to J', its path will indicate the average rate of increase in production throughout the period 1910 to 1923 (in a like manner to that described above).

The production of pig iron as indicated on the chart of the United States Steel Corporation production for the years 1910 to 1915 is 46 per cent of the total production in the United States. The production for 1915 to 1921 is 42 per cent of the total production. The total production of the United States Steel Corporation for pig iron for 1910 to 1921, inclusive, is 44 per cent of the total pig iron produced in the United States, all of which is shown in Diagram No. 1.

It was shown above that the line (X—X') indicates the rate of production of pig iron for the years 1900 through the year 1923. The years 1916 to 1923 are estimated at the same relative rate of increase as was 1900 to 1915. Line (Y—Y') is drawn in order to see what the effect would have been had the facilities of the taxpayer been operated in harmony with the rest of the steel industry at the rate of 44 per cent of the total production. The proportion established in the area between the lines (X—X') and (Y—Y') is 56 per cent of the total area, indicating that the area below that line was the 44 per cent estimated as being produced by the United States Steel Corporation for this period. The line (Y—Y') of estimated production of the taxpayer from 1910 to 1923, and the production as indicated by the line (J—J') of the taxpayer as produced from 1910 to 1923, both indicate a decided tendency on the part of the taxpayer to each year increase the production of pig iron.

The relation of these two lines is very similar to the relation of the two like lines, K—K' and X—X' as indicated on the chart of the "total production of the United States." This would indicate that, while the total production of "pig iron," in any separate year, may differ in percentage from the production of the United States Steel Corporation, yet, taken over a series of years, the ratio is maintained very closely, and a prediction, based on the total cast-iron production, would in all probability be reflected in a like ratio over a series of years on the production of the United States Steel Corporation.

A study of the records shown in the Iron Age, on page 832 of the October 5 issue, indicates that 18,205,934 gross tons of pig iron were produced in the first nine months of the year 1922. From these figures the engineers have compiled the following tabulation, showing the total production of pig iron of the United States by months from January 1922 to September, 1922, inclusive:

Months	Average daily production	Monthly production	Months	Average daily production	Monthly production
January	53,063	1,644,953	July	77,592	2,405,365
February	58,214	1,529,992	August	58,586	1,816,170
March	66,675	2,065,925	September	67,791	2,033,720
April	69,070	2,072,100			
May	74,409	2,306,679	Total		18,205,934
June	78,701	2,361,030			

From an inspection of the above tabulation it is quite evident that the pig-iron production was on the increase from January, 1922, until August, 1922. In August and September it took a drop from the general trend. This decrease was not looked upon by the engineers as a falling off of a demand for pig-iron production, but rather due to a shortage of coke and coal caused by the recent coal strike. The increase of the taxpayer's unfilled orders for open-hearth steel, as noted in a latter part of this study, would lead one, who had made a study of this situation, to believe that the monthly increase in production would continue through the balance of the year 1922 and well into the year 1923 at the same increase in ratio as was shown from January, 1922, to August, 1922.

The production for 1922, basing the last three months on the general average of the first nine months, will be 24,274,572 gross tons of pig iron. This the engineers have properly entered upon the chart as their estimate of pig iron for 1922 for the United States as a whole. The production is approximately 50 per cent increase over the 1921 production. Should the increase during 1923 continue in a like proportion to that indicated during the year 1922, the production will reach slightly over 35,000,000 gross tons as indicated on the "chart of the total production."

The fluctuations in annual production of the taxpayer's facilities are not so erratic as those shown by the "total production chart." If the fluctuations were in harmony (as noted above), the 1921 production for the taxpayer's facilities would have been 7,304,000 tons of pig iron. In 1922 the production would be 10,692,000 tons, and in 1923 the production would amount to 15,620,000 tons, giving an estimated average, based on 44 per cent of the total production in the United States, of 11,205,000 tons.

From the actual figures, as shown by the taxpayer's data, the 1921 production was 8,678,262 tons of pig iron. The production for the first six months of 1922 was 5,540,192 tons, as shown in the following tabulation:

	Tons
January	764,004
February	752,711
March	959,853
April	977,310
May	1,088,807
June	1,047,507
Total for six month of 1922	5,540,192

An inspection of the above table will show that the second quarter of the first-half-year of 1922 increased approximately 27 per cent over the production of the first quarter of 1922. The total estimated production for 1922 will be 11,080,384 gross tons, if we leave out the factor of increase as noted above, and base the results of the last half of 1922 on the production from January, 1922, to June, 1922, inclusive.

Should the increase of 1923 be taken in a like proportion over 1922 to the increase of production of 1922 over that of 1921, we would have the following results as the actual and the estimated production for the postwar years 1921 to 1923, inclusive:

Production for the year 1921	8,678,262
Production estimated for the year 1922	11,080,384
Increase in production for the year 1922 over that of 1921 (or 27.7 per cent)	2,402,122
Estimated production for the year 1923 based on an increase of 27.7 per cent over 1922 production	14,149,649

Summarizing the pig-iron production for the postwar years, we have:

1921, gross tons of pig iron produced	8,678,262
1922, gross tons of pig iron produced	11,080,384
1923, gross tons of pig iron produced	14,149,649
Total postwar production	33,908,295
Annual postwar production	11,302,765

This average postwar production is very close, and as will be noted above, equals 44 per cent of the total production. It is the engineers' opinion that

the above estimate is a fair and reasonable figure upon which to base the postwar pig-iron production.

It is quite obvious, from an inspection of the chart, that an estimate, based on the annual production of pig iron from the year 1900 to 1916, as indicated by (Y–Y'), or for the years 1910 to 1916, as indicated by the line (J–J'), would be quite unfair according to the bureau's method. The actual figures of 1921 and 1922 have demonstrated that the average production of the (normal postwar years would fall below the estimated postwar production) as given by the above-noted production lines. The average annual production of the 14 years from 1910 to 1923, inclusive, based on the actual production from 1910 to 1921, inclusive, based on the actual production from 1910 to 1921, inclusive, and the estimated production from 1922 to 1923 amounts to 13,270,000 gross tons of pig iron. This average, shown by point (L) on the chart, falls on line (J–J') and the total line of production coincides exactly with the line (J–J') as estimated for the pre-war years 1910 to 1915, inclusive, indicating that an estimate based on line J–J' would be correct for the production of the above years if the engineers were allowed to include war time products.

PRODUCTION ESTIMATE TABULATION XVI

TABULATION SHOWING PRODUCTION BY TONS FOR PIG IRON, AS TAKEN FROM THE DATA OF THE UNITED STATES STEEL CORPORATION

The production as herein shown is the actual production of pig iron from the year 1910 to 1921, inclusive, and the estimated production for 1922 and 1923, as given by the United States Steel Corporation. Column 1 represents the year to which the data applies; column 2 indicates the capacity; column 3 shows the gross production of pig iron during the year as indicated in column 1; column 4 indicates the cumulative production of pig iron to the end of various years noted in column 1 from the beginning of 1910.

PRE-WAR PRODUCTION FROM 1910 TO 1915, INCLUSIVE

(1) Year	(2) Capacity	(3) Annual production	(4) Cumulative production
1910	15,916,850	11,831,398	11,831,398
1911	16,240,700	10,744,897	22,576,295
1912	16,130,400	14,186,164	36,762,459
1913	16,244,550	14,080,730	50,843,189
1914	16,660,900	10,052,457	60,895,646
1915	16,748,900	13,641,508	74,537,154
Total	97,942,200	74,537,154	

WAR CONDITIONS FROM 1916 TO 1920, INCLUSIVE

1916	17,515,100	17,607,637	92,144,791
1917	18,104,600	15,652,928	107,797,719
1918	18,396,400	15,940,954	123,738,673
1919	18,169,525	13,637,504	137,376,177
1920	18,404,440	14,532,646	151,908,823

POSTWAR CONDITIONS FROM 1921 TO 1923, INCLUSIVE (TAXPAYER'S ESTIMATE)

1921	18,499,340	8,678,262	160,587,085
1922		11,500,000	172,087,085
1923		12,600,000	184,687,085

GOVERNMENT'S POSTWAR ESTIMATE

1921		8,678,262	
1922		11,060,384	
1923		14,149,649	

Postwar average annual estimated production, 11,302,765 gross tons.

Reference is made to production estimate headed "Tabulation No. XVI." This tabulation gives the capacities and the production of pig iron for the taxpayer's facilities for the years 1910 to 1920, inclusive, and the taxpayer's estimate of the postwar period 1921, 1922 and 1923.

From the engineers' calculations it was shown that the average annual estimated postwar production amounted to 11,302,765 tons of pig iron. The total production for the normal pre-war years 1910 to 1915, inclusive, as noted in Tabulation No. XVI is 74,537,154 gross tons (six years' production). The normal pre-war capacity, summed up for these six years into a total (for the purpose of averaging), amounts to 97,942,200 gross tons. From the above figures it is evident that the normal pre-war capacity is 131.3 per cent of the normal pre-war production. Applying the pre-war ratio, 131.3 per cent to the postwar average annual production, 11,303,765 gross tons, we get as an average annual postwar capacity, 14,840,530 gross tons of pig iron. The taxpayer's capacity is shown by Tabulation No. XVI as 18,499,340 tons of pig iron. From these figures it will be seen that the estimated postwar capacity is only 80 per cent of the actual postwar capacity. The economic loss, therefore, will be 20 per cent.

The engineers consider that a sufficient allowance has been made in their estimates to cover any increased capacity which the taxpayer may have installed during the postwar years. If the taxpayer does install increased capacity it is estmated that the increased production over the engineers' estimate will automatically take care of any fluctuations in the ratio as noted above.

PRODUCTION ESTIMATE OF OPEN HEARTH STEEL

Reference is made to Tabulation No. XVII. The total capacity for six normal pre-war years, 1910 to 1915, inclusive, for open hearth facilities is 11,088,680 gross tons. The total production for the same series of years as noted in the same tabulation is 88,563,561 gross tons. Comparison of these two figures indicates that the capacity for the normal pre-war years as noted above is 125.5 per cent that of the normal production during the same period.

The postwar yearly capacity is given as 22,502,900 gross tons of open hearth steel. The taxpayer's estimated figures for production during the postwar years are given at the bottom of the tabulations and average 13,838,393 gross tons anually.

PRODUCTION ESTIMATE TABULATION XVII

TABULATION SHOWING PRODUCTION BY TONS OF OPEN HEARTH STEEL INGOTS AS TAKEN FROM THE DATA OF THE UNITED STATES STEEL CORPORATION

The production as herein shown is the actual production of open hearth steel ingots from the years 1910 to 1921, inclusive, and the taxpayer's estimate of production for the year 1922. Column 1 represents the year to which the data applies; column 2 gives the capacity of the taxpayer's facilities; column 3 shows the gross production of open hearth ingots in tons during the year as indicated in column 1; column 4 indicates the cumulative production of open hearth ingots to the end of the various years as noted in column 1, from 1910 to 1915, inclusive.

PRE-WAR PRODUCTION FROM 1910 TO 1915, INCLUSIVE

(1) Year	(2) Capacity	(3) Annual production	(4) Cumulative production
1910	17,772,600	14,130,776	14,130,776
1911	18,012,600	12,729,523	62,860,299
1912	18,752,270	16,893,154	43,753,453
1913	18,434,770	16,639,625	60,393,078
1914	18,942,970	11,817,302	72,210,380
1915	19,173,470	16,353,081	88,563,461
Totals	111,088,680	88,563,461	

WAR CONDITIONS FROM 1916 TO 1920, INCLUSIVE

1916	20,723,070	20,859,621	
1917	21,044,900	20,201,693	
1918	22,004,100	19,426,302	
1919	22,136,600	17,183,533	
1920	22,150,490	19,172,119	

POSTWAR CONDITIONS FROM 1921 TO 1923, INCLUSIVE (TAXPAYER'S ESTIMATE FOR 1922 AND 1923)

1921	22,502,900	10,951,853	
1922		14,730,000	
1923		15,976,000	

GOVERNMENT'S POSTWAR ESTIMATE

1921		10,951,856	
1922		15,191,030	
1923		16,967,114	
Total		43,110,000	

Average annual postwar production, 14,370,000 gross tons.

The estimate for the postwar annual production as made by the engineers is based on the actual production for the year 1921 and the first six months of the year 1922, and the increase in volume of unfilled orders which the taxpayer has on hand as of June 22, 1922.

The following is a tabulation which shows the production of open hearth steel in gross tons per month and the number of gross tons per month in unfilled orders for the first half year of 1922:

Month	Production in gross tons	Unfilled orders	Month	Production in gross tons	Unfilled orders
January	859,150	4,241,679	May	1,441,488	5,264,228
February	1,046,961	4,141,009	June	1,450,848	5,035,521
March	1,355,887	4,494,148			
April	1,342,163	5,096,017	Total	7,495,515	

From Tabulation XVII it is shown that the 1921 production of open-hearth steel is 10,951,856 gross tons. From the tabulation set forth above, it is estimated that the average annual postwar production for the year 1922 will amount to 15,191,030 gross tons of open-hearth steel if we base the last half year of 1922 on results of the first half year and make no allowance for the monthly increase.

It is noted by an examination of the tabulation as set forth above that the increase of the second quarter year over that of the first quarter year is 30 per cent and the orders on hand at the end of June, 1921, are 32 per cent in excess of the unfilled orders as of January, 1922. The yearly increase of 1922, as estimated from the above figures, is 41 per cent over that of the year 1921. If the engineers base the 1923 production on the relative increase of 1922 over that of the year 1921, the result would indicate for the period of the three postwar years that the taxpayer's facilities were approximately 89 per cent value in use. If the 1923 estimate is based on the increase from January 1, 1922, to June 30 of the same year, it would indicate that the taxpayer's facilities were approximately 86 per cent value in use. If a relative decrease for the year 1923 is considered in the same proportion as the decrease in increased production indicated for the first six months of 1922, compared with the 1922 production over that of 1921, the increase from 1923 over 1922 in this case would be 19 per cent and would indicate a total estimated production of 18,077,326 gross tons of open-hearth steel for the year 1923. The engineers can not check the taxpayer's figures for the value in use owing to the increased

actual production for the year 1922 which the taxpayer did not have at the time its estimate was compiled.

It is evident from the above figures that while the 1922 production is considerably more than that of 1921, yet from such figures as they have available there is a continual lessening in the increased production, as shown for the first six months of 1922. This is quite more apparent when comparing the lessening of the increased production for the first nine months in 1922 of the pig-iron production, which was explained on a former page of this study.

In order to illustrate how the production of open-hearth steel harmonizes with the production of pig iron, the engineers have prepared Diagram No. II which is the actual and the estimated annual production of the Bessemer and open-hearth steel. This diagram gives the charted actual and estimated production of cast iron for the years 1910 to 1923, inclusive. This chart was taken directly from Diagram No. I. Superimposed on the chart of pig iron production is a chart showing the actual and estimated production of open-hearth steel for the same period. The figures from which these charts are compiled are shown in Tables No. XVI and No. XVII.

It is estimated that the average annual production of open-hearth steel for the normal pre-war years 1910 to 1915, inclusive, is 14,760,580 gross tons. The location of this average is indicated on Diagram No. II by the letter (A). The production line extending through the war years to December, 1923, is indicated by B–B'. The production line J–J', as shown on Diagram No. I, is reproduced in the proper place in Diagram No. II for a comparison of the normal trend of pig-iron production with the normal trend of the open-hearth steel production. It will be noted that the two lines operate in harmony, one with the other, both through the six normal pre-war years and the estimated eight war and postwar years.

It was shown that the average of the quarter pre-war, war, and postwar years under the heading, "Pig-iron production" fell exactly on line J–J'. An estimate covering the open-hearth steel from the years 1910 to 1923, inclusive, based on the figures noted above, indicates an average annual production of 16,967,114, which would be 500,000 gross tons more than the estimated average as given by the line B–B'.

The engineers are inclined to believe from their judgment that, based on the studies they have made of the situation, the 1923 production will not be a great deal in excess of that estimated in the year 1922. It is their opinion that cast iron is the basic production upon which all other portions of the steel industry depend and any indication of a rise or fall in cast iron will be reflected in exact ratio over a period of time on most all of the other steel products.

DIAGRAM NO. II—ACTUAL AND ESTIMATED ANNUAL PRODUCTION OF BESSEMER AND OPEN HEARTH STEEL

NOTE.—The upper chart indicates the annual production of open hearth steel. The lower chart indicates the production of pig iron.

From all the studies made it would indicate that the Bessemer and open hearth steel facilities should have a greater value in use than the studies made for the facilities used in the cast iron production. This is due to a great extent to the abrupt jump in open hearth steel production in 1916 compared with that of cast iron, which would change to a small extent the ratio existing between normal production and capacity in the pre-war years, and naturally reflect a higher value in use for the open hearth production in postwar years. It is, therefore, recommended that the estimated production for open hearth steel for the year 1923 be taken as 16,967,114 gross tons, which is an increase of 11.7 per cent over the estimated production for the year 1922. The total production during the postwar period will amount to the same as cast iron, namely 80 per cent value in use, or a loss in economic value of 20 per cent.

The following is a summary of the actual and estimated production of open hearth steel for the postwar years 1921, 1922, and 1923:

1921	10,951,856
1922	15,191,030
1923	16,967,114
Total	43,110,000

or an average of 14,370,000 tons. Multiplying this by the normal ratio of production capacity, 125.5 per cent, it gives the required capacity or 18,002,300 gross tons. This required capacity, compared with the taxpayer's actual capacity, 22,502,900, gives, as was noted above, 80 per cent.

DISCUSSION OF THE VALUE IN USE OF FACILITIES MANUFACTURING BILLETS, BLOOMS, AND SLABS

The taxpayer has submitted figures giving the actual production of the various facilities, among its subsidiary companies used in the manufacture of billets, blooms, and slabs for the years 1910 and 1921, inclusive, and upon the productions so given it is estimated what the postwar production of billets, blooms, and slabs will be for the two postwar years 1922 and 1923. It is estimated that the production for these three postwar years 1921, 1922, and 1923 will be 11,372,407 gross tons.

The taxpayer has considered that the normal pre-war years were from 1910 to 1916, inclusive, and basing the relation between the average normal production of these so-called normal pre-war years and the capacity, it has arrived at a figure of 118.92 representing the percentage of production to capacity for the above years and by applying this capacity in a similar manner to that as was explained under the heading of "Production of pig iron," it is determined that value in use of the facilities functioning for the production of billets, blooms, and slabs in the normal postwar years is only 75.55 per cent.

The engineers have prepared Table XVIII from the data furnished in the taxpayer's records. This tabulation gives the taxpayer's actual production of billets, blooms, and slabs from 1910 to 1921, inclusive, and the taxpayer's estimated production for the postwar years.

The relative capacity for each of the pre-war years is also set forth as noted in column 2.

The taxpayer has submitted no data to indicate the monthly production of the various facilities that were used in the manufacture of the above production during the postwar year 1922.

For the same reason as was given under the study of cast iron production, the engineers do not consider the year 1916 a normal pre-war year and for that reason have eliminated it from their calculations on the production of billets, blooms, and slabs for the normal pre-war years. It is shown by Table XVIII that the average production for the normal pre-war years amounts to 13,111,815 gross tons, based on an average normal capacity of 10,284,794 gross tons. From these figures it is evident that the relation between the capacity and the production of the normal pre-war years is 1.242. The taxpayer, in a letter dated August 7, 1922, stated that the production of billets, blooms, and slabs was in balance with the capacity of the open-hearth department. The engineers have, therefore, checked the production of the 1922 and 1923 years with the 1921 year. This check is in direct proportion to the relation shown by the open-hearth products. The average of production for these three postwar years will be 11,670,539 gross tons and the relative necessary capacity will be 1.242 times this amount of 14,494,800 gross tons. The actual capacity of the taxpayer's facilities in 1921 amounts to 17,900,815 gross tons. Therefore, the relation between the required capacity and the actual capacity will be 81 per cent which would indicate the value in use of the taxpayer's facilities which were used in the production of billets, blooms, and slabs.

The engineers consider, for reasons as given under the caption, "Production estimate of open hearth steel," that the value in use should be 80 per cent.

PRODUCTION ESTIMATE TABULATION XVIII SHOWING THE PRODUCTION BY GROSS TONS OF BILLETS, BLOOMS, AND SLABS AS TAKEN FROM THE DATA FURNISHED BY THE UNITED STATES STEEL CORPORATION

The production as herein shown is the actual production of billets, blooms, and slabs from the year 1910 to the year 1921, inclusive, and the estimated production for the years 1922 and 1923 as estimated by the United States Steel Corporation. Column 1 represents the year to which the data applies. Column 2 indicates the capacity of the taxpayer's facilities. Column 3 shows the gross production of billets, blooms, and slabs in gross tons during the year as

indicated in column 1. Column 4 indicates the cumulative production of this product at the end of the various years from 1910 to 1915, inclusive.

(1) Year	(2) Capacity	(3) Annual production	(4) Cumulative production
Pre-war production from 1910 to 1915, inclusive:			
1910	15,478,338	12,411,618	12,411,618
1911	16,710,300	11,852,216	24,263,834
1912	15,426,030	14,761,989	39,025,823
1913	16,480,900	14,109,107	53,134,930
1914	16,993,600	10,649,694	63,784,624
1915	16,619,600	14,883,127	78,670,951
Total	97,708,768	78,670,951	
Average	16,284,794	13,111,825	
War conditions from 1916 to 1920, inclusive:			
1916	17,891,900	18,532,897	
1917	18,740,000	17,664,122	
1918	19,459,900	16,730,143	
1919	19,326,000	14,653,353	
1920	19,266,700	17,023,842	
Postwar conditions from 1921 to 1923, inclusive: [1]			
1921	19,900,815	8,861,610	
1922		12,350,000	
1923		13,800,000	
Total		35,011,616	
Average		11,670,539	

[1] Taxpayer's estimate for 1922 and 1923.

The foregoing discussion of "Economic value" applies to all subsidiaries of the United States Steel Corporation.

Thirteen factors of "Economic value" or "value in use" factors, pertinent to the "production" of the Carnegie Steel Co., have been determined by the engineers using the method just indicated. This data has been arranged in schedule form and is shown on Table XIX which immediately follows this sheet.

In addition to the foregoing factors, it was necessary to determine the "value in use" factors for the "general facilities." These facilities may be described and classified as follows:

(*a*) General facilities whose use is directly governed by the use of the specialized facilities of the plant which they serve.

(*b*) General facilities serving a group of plants whose use is determined by the weighted average "value in use" of the group.

In determining the "value in use" of the general facilities in class A, the taxpayer has considered each plant as a unit. The annual productive capacity of the plant has been weighted by the "value in use" factor of each article manufactured, giving a reduced theoretical production for each article. The sum of the reduced theoretical production for each plant has been divided by the sum of the productive capacity of the plant, the result being a weighted average factor which indicates the "value in use" of the general facility of that particular plant.

The "value in use" factors for general facilities in class (*b*), described above, have been determined in a similar manner, combining factors obtained for (*a*) properly weighted.

The taxpayer's method has been adopted by the engineers with these exceptions:

1. The general facilities in class (*b*) serve only blast furnaces and act in harmony with them—they have been given the same "value in use" as the blast furnaces.

2. The general facilities in class (*a*) which seem to serve both the Clark Mills and the Upper Mills, Pittsburgh, have been given an average "value in use" of the general facilities of both plants.

Pages 114 to 120 show the engineers' computations for determining the "value in use" of the general facilities in each plant. The engineers' "value in use" factor, as set forth in Table XIX, has been substituted instead of the taxpayer's "value in use" factor in making these computations.

TABLE XIX.—*Statement showing derivations of "economic value" factors of facilities for producing principal commodities manufactured by the Carnegie Steel Co., a subsidiary of the United States Steel Corporation*

[Basis of table: Average pre-war capacity, production, ratio production into capacity, and average actua 1921 production]

Number shown on taxpayer's chart	Name of product manufactured by the taxpayer's facilities	Average pre-war capacity to 1910-1915	Average pre-war capacity 1910-1915	Ratio capacity to production account 1910-1915	Postwar capacity	1921 production	1922 production to June 30
1	Pig iron	$97,942,200	$74,537,154	131.3	$18,499,340	$8,678,202	$5,540,192
2-3	Bessemer and O. C. ingots	111,068,680	88,568,461	125.5	22,502,900	10,951,858	7,595,515
4	Electric steel ingots	63,833	21,638	295	191,000	14,491	8,181
8	Sheet and t. p. bars	2,105,659	1,821,844	115.69	2,923,700	1,505,950	926,800
10	Plates universal	780,573	573,557	136.5	832,000	345,950	299,001
[1] 11	Plates sheared	795,208	648,905	123.65	1,563,000	571,238	420,774
[1] 12	Heavy structural shapes	1,621,520	1,048,580	154.6	1,763,000	518,519	507,670
13	Axles	279,633	102,464	273	249,000	22,570	28,404
[1] 14	Merchant mill products	2,245,488	1,837,947	122.1	3,650,082	1,237,626	1,212,765
16	Car wheels	118,883	70,921	167.5	203,720	39,132	37,525
20	Fabricated structural steel A. B. Co., Ill	884,828	630,943	140	848,080	292,389	130,815
[1] 21	Billets, blooms and slabs	16,284,794	13,111,815	124.2	17,900,815	8,861,616	.....
23	Foundry Products Exchange Am. S. & T. P. Co.	422,124	341,370	124	536,150	225,649	149,950
28	Splice bars and rail joints, pre-war factor assumed	.....	.....	125	437,900	232,689	108,755

Number shown on taxpayer's chart	Name of product manufactured by the taxpayer's facilities	1922 estimated by production	1923 estimated production	Average estimated post war annual production	Estimated required postwar capacity	Required capacity, actual capacity given value in use, per cent actually used	
						Per cent	*Per cent*
1	Pig iron	$11,080,384	$14,169,649	$11,802,765	$14,840,530	80	80
2-3	Bessemer and O. O. ingots	15,101,030	16,967,114	14,370,000	18,002,300	80	80
4	Electric steel ingots	16,322	20,000	18,935	49,967	26.1	26
8	Sheet and t. p. bars	1,853,600	2,070,000	1,809,850	2,092,571	71.5	72
10	Plates universal	579,802	650,000	625,254	716,972	86	85
[1] 11	Plates sheared	841,548	942,534	785,106	970,784	62	62
[1] 12	Heavy structural shapes	1,195,340	1,116,000	943,286	1,458,320	63.1	83
13	Axles	56,808	63,625	47,668	130,134	52.2	52
[1] 14	Merchant mill products	2,425,530	2,716,595	2,126,584	2,596,559	71.2	71
16	Car wheels	75,050	84,000	66,061	106,522	52	52
20	Fabricated structural steel, A. B. Co., Ill	261,630	292,000	282,006	394,500	46.5	46
[1] 21	Billets, blooms and slabs	12,550,000	13,800,000	11,670,539	14,494,803	81	80
23	Foundry Products Exchange Am. S. & T. P. Co.	299,900	336,000	287,183	356,107	67.4	67
28	Splice bars and rail joints, pre-war factor assumed	217,510	243,613	331,271	289,089	66.2	66

[1] Estimated 1922 production obtained by doubling the actual production for the first-half year. Estimated 1923 production which is 1922 12 per cent. Are averaged for postwar except item 1-2 and 3.

Determination of value in use factor—For general facilities

Facilities of production	Product	Annual productive capacity	Engineers' value in use factor	Reduction of productive capacity by value in use factor
			Per cent	
Baltimore, structural shop	Fabricated structural materials		46	
Bellaire:				
Blast furnaces	Pig iron	276,000	80	221,000
Open-hearth furnaces, and Bessemer converters.	Ingots—Bessemer and open-hearth	420,000	80	336,000
Blooming mills and slabbing mills.	Blooms, billets, and slabs	752,000	80	602,000
Foundries	Foundry products	1,550	67	1,040
Total		1,449,550	80	1,160,040
	$\frac{1,160,040}{1,449,550}$=80%.			
Clark mills, merchant mills	Merchant-mill products		71	
Carrie furnace, blast furnaces	Pig iron		80	
Columbus	Pig iron	190,000	80	152,000
Do	Ingots	200,000	80	160,000
Do	Blooms, billets, and slabs	180,000	80	144,000
Do	Sheet and tin bars	170,000	72	122,300
Total		740,000	78.2	578,300
	$\frac{578,300}{740,000}$=78.2%.			
Duquesne plant (item Nos. 41 and 42):				
Blast furnaces	Pig iron	1,024,500	80	820,000
Open-hearth furnaces and Bessemer converters.	Ingots—Bessemer and open hearth	1,355,000	80	1,084,000
Blooming mills and slabbing mills.	Blooms, billets, and slabs	1,956,500	80	1,565,000
Bar mills	Sheet and tin bars	100,000	72	72,000
Merchant mills	Merchant mill products	752,500	71	534,000
Foundries	Foundry products	2,200	67	1,475
Total		5,190,700	78.5	4,076,475
	$\frac{4,076,475}{5,190,700}$=78.5% value in use.			
Edgar Thomson plant (item No. 41):				
Blast furnaces	Pig iron	1,940,000	80	1,550,000
Open-hearth furnaces and Bessemer converters.	Ingots—Bessemer and open hearth	1,406,000	80	1,125,000
Blooming mills and slabbing mills.	Blooms, billets, and slabs	1,209,000	80	968,000
Rail mills	Rails—light and heavy	1,026,000	100	1,026,000
As shown	Splice bars and rail joints	85,000	66	56,200
Foundries	Foundry products	194,975	67	130,800
Total		5,860,975	83	4,856,000
	$\frac{4,856,000}{5,860,975}$=83% value in use.			
Edith furnace, blast furnace	Pig iron		80	
Greenville, merchant mills	Merchant-mill products		71	
Homestead works:				
Open hearth furnaces and bessemer converters.	Ingots—Bessemer and open hearth	2,400,000	80	1,920,000
Blooming mills and slabbing mills.	Blooms, billets and slabs	1,734,000	80	1,388,000
Universal mills	Plates, universal	338,000	86	290,500
Plate mills	Plates, sheared	891,000	62	552,000
Structural mills	Heavy structural shapes	448,000	83	372,000
Merchant mills	Merchant mill products	24,000	71	17,050
Structural shop	Fabricated structural materials	6,700	46	3,080
Foundries	Foundry products	3,000	67	2,010
Total		5,844,700	78	4,544,640

Determination of value in use factor—For general facilities—Continued.

Facilities of production	Product	Annual productive capacity	Engineers' value in use factor	Reduction of productive capacity by value in use factor
	$\frac{4,544,640}{5,844,700}$=78% value in use.		Per cent	
Howard axle works, axle mills	Axles		52	
Isabella furnace, blast furnace	Pig iron		80	
Lucy furnace, blast furnace	do		80	
McDonald mills:				
Merchant mills	Merchant-mill products	211,600	71	150,000
Skelp mills	Skelp	144,000	100	144,000
Total		355,600	82.8	294,000
	$\frac{294,000}{355,600}$=82.8% value in use.			
McCutcheon works:				
Rail mills	Rails, light and heavy	1,500	100	1,500
Universal mills	Plates, universal	1,000	86	860
Structural mills	Heavy structural shapes	12,000	83	9,970
Merchant mills	Merchant-mill products	72,300	71	51,300
Skelp mills	Skelp	57,000	100	57,000
Total		143,800	84	120,630
	$\frac{120,630}{143,800}$=84%.			
Mingo:				
Blast furnaces	Pig iron	585,000	80	468,000
Open-hearth furnaces and Bessemer converters.	Ingots—Bessemer and open hearth	600,000	80	480,000
Blooming mills and slabbing mills.	Blooms, billets and slabs	1,021,000	80	816,000
Bar mills	Sheet and tin bars	412,000	72	296,000
Merchant mills	Merchant-mill products	10,000	71	7,100
Skelp mills	Skelp	55,000	100	55,000
Total		2,683,000	79	2,122,100
	$\frac{2,122,100}{2,683,000}$=79%.			
Monesson, merchant mills	Merchant-mill products		71	
New Castle:				
Blast furnaces	Pig iron	630,000	80	505,000
Open-hearth furnaces	Ingots	770,000	80	617,600
Blooming mills and slabbing mills.	Blooms	714,000	80	572,000
Bar mills	Sheet and tin bars	682,000	72	492,000
Total		2,796,000	78	2,186,000
	$\frac{2,186,000}{2,796,000}$=78%.			
Niles Furnace, blast furnace	Pig iron		80	
Ohio works:				
Blast furnaces	do		80	
Open-hearth furnaces and Bessemer converters.	Ingots		80	
Blooming mills and slabbing mills.	Blooms, billets		80	
Total			80	
Painter mills:				
Merchant mills	Merchant-mill products	65,000	71	46,000
Skelp mills	Skelp	15,000	100	15,000
Total		80,000	76.3	61,000
	$\frac{61,000}{80,000}$=76.3% value in use.			

Determination of value in use factor—For general facilities—Continued

Facilities of production	Product	Annual productive capacity	Engineers' value in use factor	Reduction of productive capacity by value in use factor
			Per cent	
Sharon:				
Blast furnaces	Pig iron	95,700	80	76,000
Open-hearth furnaces and Bessemer converters	Ingots—Bessemer and open hearth	150,000	80	120,000
Blooming mills and slabbing	Blooms, billets, and slabs	126,000	80	100,800
Bar mills	Sheet and tin bars	92,000	72	66,200
Skelp mills	Skelp	28,000	100	28,000
Total		491,700	79.7	391,600
	$\frac{391,600}{491,700}$=79.7%.			
Schoen steel wheel, rolled steel wheel mill.	Car wheel		52	
Lower union mills, Pittsburgh:				
Plate mills	Plates, sheared	48,000	62	29,800
Merchant mills	Merchant-mill products	80,000	71	56,750
Total		128,000	67.5	86,550
	$\frac{86,550}{128,000}$=67.6%.			
Upper union mills, Pittsburgh:				
Universal mills	Plates, universal	93,000	86	80,000
Structural mills	Heavy structural shapes	131,000	83	108,800
Merchant mills	Merchant mill products	48,000	71	34,100
Structural shop	Fabricated structural materials	6,000	46	2,760
Total		278,000	81.2	225,660
	$\frac{225,660}{278,000}$=81.2%.			
Lower union mills, Youngstown, merchant mills.			71	
Upper union mills, Youngstown, merchant mills.			71	
Waverly, structural shop			46	

DISCUSSION OF "VALUE-IN-USE" FACTORS, OTHER THAN GIVEN IN TABLE XII, XIII, AND XIV

Table VI, on page 20, gives the 48 different "value-in-use" factors. The first 14 of these factors apply to production items direct. The engineers have taken a "value-in-use" factor as found by methods adopted in the previous text, and set forth under the heading of "Table XIX," and made a comparison between the taxpayer's "value-in-use factors" and the Government's, under the heading of "Table XX."

Table XX is a tabulation showing the taxpayer's estimated relation between the postwar production and normal production, expressed in a "value-in-use" factor, and the bureau's estimated "value-in-use" for the same item.

Column 1 will be the name of the product; column 2 will be the taxpayer's "value-in-use" factor; column 3 will be the bureau's adopted "value-in-use" factor.

TABLE XX

(1) Name of product	(2) Taxpayer's "value-in-use" factor	(3) Bureau's "value-in-use" factor	(1) Name of product	(2) Taxpayer's "value-in-use" factor	(3) Bureau's "value-in-use" factor
Pig iron	74.39	80	Axles	59.59	52
Bessemer, open-hearth	75.35	80	Merchant mill products	43.02	71
Electric steel ingots	34.07	26	Car wheels	40.36	52
Sheet and tin plate bars	75.20	72	Fabricated structural steel	61.52	46
Plates, universal	75.84	86	Billets, blooms, slabs	75.55	80
Plates, sheared	54.74	62	Foundry products	66.20	67
Heavy structural shapes	63.86	83	Splice bars	66.03	66

The result of the calculations for the "value-in-use" factors for the general facilities is embodied under the heading of "Table XXI." The "value-in-use" factor adopted by the taxpayer has been taken from Table VII, on page 20, and the factor found by the bureau's engineers, as explained in the previous text, has been set beside the taxpayer's "value-in-use" to express the comparison of the Government with the taxpayer on the various general facilities.

TABLE XXI.—*Tabulation showing taxpayer's estimated relation for its various general facilities between the normal production and the postwar production, and the Government's "value-in-use" factor for the same items*

(1) Name of plant	(2) "Value-in-use" factor adopted by taxpayer	(3) "Value-in-use" factor adopted by Government	(1) Name of plant	(2) "Value-in-use" factor adopted by taxpayer	(3) "Value-in-use" factor adopted by Government
1. Baltimore	55.45	46.0	17. Monesson	58.59	71.0
2. Bellaire	75.42	80.0	18. Newcastle	75.22	78.0
3. Clark Mills	58.59	71.0	19. Niles Furnace	74.39	80.0
4. Carrie Furnace	74.39	80.0	20. Ohio Works	75.21	80.0
5. Columbus	75.19	78.2	21. Painter Mills	66.35	76.3
6. Duquesne	72.85	78.5	22. Sharon	76.66	79.7
7. Edgar Thomson	79.00	83.0	23. Schoen. Steel Wheel	40.26	52.0
8. Edith Furnace	74.39	80.0	24. Lower Union Mills, Pittsburgh	57.15	67.5
9. Greenville	58.59	71.0	25. Upper Union Mills, Pittsburgh	66.91	81.2
10. Homestead Works	69.88	78.0	26. Lower Union Mills, Youngstown	58.59	71.0
11. Howard Axle	43.00	52.0	27. Upper Union Mills, Youngstown	58.59	71.0
12. Isabella Furnace	74.39	80.0	28. Waverly	55.45	46.0
13. Lucy Furnace	74.39	80.0			
14. McDonald Mills	75.36	82.8			
15. McCutcheon Works	76.00	84.0			
16. Mingo	75.69	79.0			

"VALUE-IN-USE" FACTORS FOR THE ASSOCIATE COMPANIES TO THE CARNEGIE STEEL CO.

As was mentioned on page 21, this report is divided into four sections. The first section deals with the generalities of all companies; the second section deals with the Carnegie Steel Co. direct, and the third section with the 14 subsidiary companies.

It was considered in keeping with the methods adopted in compiling this report that the "value-in-use" factors for the Carnegie Steel Co. and the methods of compiling these factors should be taken up in section No. 1. The "value-in-use" factors for the subsidiary companies are of such a different character that it is considered better to take them up in connection with the facilities to which they pertain under the heading of "section 3."

If the "standard value-in-use factors" apply to any of the associate companies, due recognition of the same will be made, and reference will be noted under such heading as this factor may pertain.

EXHIBIT C

TABLE I.—*Pig iron, steel ingots, billets, blooms, and slabs, and rolled and finished steel. Manufacturing capacity, production, annual increase in capacity, ratio of capacity to production, and annual expenditures for improvements*

(1) Year	Pig iron, ferro and spiegel (gross tons)				Steel ingots (Bessemer and open-hearth) (gross tons)			
	(2) Capacity (tons)	(3) Annual production (tons)	(4) Capacity increase over preceding years (tons)	(5) Ratio of capacity to production in per cent	(6) Capacity (tons)	(7) Annual production (tons)	(8) Capacity increase over preceding years (tons)	(9) Ratio of capacity to production in per cent
Pre-war production, 1910 to 1915, inclusive:								
1910	15, 916, 850	11, 831, 358		134.5	17, 772, 600	14, 130, 776		125.8
1911	16, 240, 700	10, 744, 897	323, 550	151.1	18, 012, 600	12, 729, 533	240, 000	141.5
1912	16, 130, 400	14, 186, 164	[1] 110, 300	113.7	18, 752, 270	16, 893, 184	739, 670	111.0
1913	16, 244, 550	14, 080, 730	114, 150	115.4	18, 434, 770	16, 639, 595	[1] 317, 500	110.8
1914	16, 660, 909	10, 052, 457	416, 359	165.7	18, 942, 970	11, 817, 392	508, 200	160.3
1915	16, 748, 900	13, 641, 503	87, 900	122.8	19, 173, 470	16, 353, 086	230, 500	117.2
Total	97, 942, 209	74, 537, 154			111, 098, 680	88, 563, 461		
Average	16, 323, 700	12, 422, 859		131.4	18, 514, 780	14, 760, 577		125.4
War period, 1916 to 1918, inclusive:								
1916	17, 515, 100	17, 607, 637	763, 300	99.5	20, 780, 070	20, 859, 621	1, 606, 600	99.6
1917	15, 104, 600	15, 582, 928	589, 500	115.7	21, 944, 900	20, 261, 668	1, 164, 830	108.6
1918	16, 396, 400	15, 980, 954	291, 800	116.4	22, 004, 100	19, 436, 302	59, 200	113.3
Total	54, 016, 100	49, 291, 519			64, 729, 070	60, 437, 621		
Average	18, 005, 367	16, 400, 506		109.8	21, 576, 357	20, 162, 540		107.0
Postwar period, 1919 to 1923, inclusive:								
1919	18, 163, 525	13, 637, 504	[1] 227, 875	133.2	22, 136, 600	17, 138, 532	132, 500	129.2
1920	18, 404, 440	14, 532, 646	235, 915	126.6	22, 152, 400	19, 172, 118	13, 800	115.5
1921	18, 499, 340	8, 678, 282	94, 900	213.2	22, 503, 900	10, 951, 856	352, 500	205.5
1922	18, 580, 000	12, 027, 163	80, 660	154.5	22, 852, 300	16, 034, 590	350, 400	142.5
1923	19, 895, 544	16, 729, 226	1, 315, 544	118.9	23, 104, 788	20, 297, 666	251, 488	113.8
Total	93, 547, 849	65, 604, 801			112, 747, 988	83, 592, 763		
Average	18, 709, 570	13, 120, 960		142.6	22, 549, 598	16, 717, 953		134.9

Year	Billets, blooms, and slabs (gross tons)				Rolled and finished steel (gross tons)				Plant charges, manufacturing only, exclusive of committee engineers' estimated amortization
	(10) Capacity (tons)	(11) Annual production (tons)	(12) Capacity increase over preceding years (tons)	(13) Ratio of capacity to production in per cent	(14) Capacity (tons)	(15) Annual production (tons)	(16) Capacity increase over preceding years (tons)	(17) Ratio of capacity to production in per cent	
Pre-war production, 1910 to 1915, inclusive:									
1910	15,478,333	12,411,618		124.7	13,417,494	10,733,995		125.0	$27,242,117
1911	16,716,399	11,852,216	1,231,967	141.0	14,143,504	9,476,248	726,010	149.3	18,017,412
1912	15,426,039	14,761,989	[1] 1,234,270	104.5	13,896,248	12,506,619	[1] 247,261	111.1	8,928,224
1913	16,480,909	14,109,107	1,054,870	116.8	14,062,316	12,374,838	166,073	113.6	19,199,775
1914	16,993,609	10,649,894	512,700	159.6	14,539,535	9,014,512	477,219	161.3	h, 757,563
1915	16,619,608	14,886,127	[1] 374,003	111.6	13,838,387	11,762,629	[1] 701,148	117.6	15,262,407
Total	97,708,763	78,670,951			83,897,879	65,868,841			99,388,535
Average	16,284,793	13,111,825		124.2	13,982,980	10,978,140		127.4	16,564,756
War period, 1916 to 1918, inclusive:									
1916	17,881,900	18,532,897	1,262,309	96.5	15,460,792	15,460,792	1,822,405	100.0	44,677,885
1917	18,749,000	17,864,122	867,100	106.1	15,896,713	14,942,911	435,921	103.4	67,977,900
1918	19,459,900	16,730,143	710,900	116.3	16,104,050	13,949,453	207,337	116.3	50,922,597
Total	56,090,800	52,927,162			47,461,555	44,253,156			163,568,382
Average	18,696,933	17,642,387		106.0	15,820,518	14,751,052		107.2	54,522,794
Postwar period, 1919 to 1923, inclusive:									
1919	19,325,000	14,653,353	[1] 134,900	131.9	15,104,510	11,997,935	580	134.3	41,521,794
1920	19,256,700	17,023,842	[1] 68,300	113.1	16,113,318	14,228,502	[1] 9,208	113.2	37,677,320
1921	17,980,815	8,361,616	[1] 1,355,885	202.0	15,562,302	7,380,734	429,074	210.7	56,353,528
1922	18,501,300	15,348,949	605,485	120.5	16,529,316	11,795,331	[1] 33,676	140.2	16,073,730
1923	19,007,112	18,642,065	505,812	102.0	16,672,094	14,721,469	142,878	113.2	33,416,699
Total	93,990,927	74,529,825			81,982,630	60,503,571			167,566,994
Average	18,798,185	14,905,965		126.1	16,396,526	12,118,714		135.3	33,512,199

[1] December

EXHIBIT D.—CALCULATION OF VALUE IN USE

TABLE 2.—*Value in use as computed by income-tax unit engineers*

	Pig iron	Steel ingots	Billets, blooms, and slabs
	Tons	*Tons*	*Tons*
1921, production	8,678,262	10,951,856	8,861,616
1922, estimated production	11,060,384	15,191,030	12,350,000
1923, estimated production	14,149,649	16,967,114	13,800,000
Total	33,908,295	43,110,000	35,011,616
Average	11,302,765	14,370,000	11,670,539
Average ratio capacity to production (per cent)	[1] 131.8	125.5	124.2
Necessary postwar capacity	14,840,530	18,002,360	14,4[illegible],809
1921, capacity	18,499,340	22,502,900	17,900,815
Value in use=1921 capacity÷necessary postwar capacity (per cent)	80	80	81

[1] Error in calculations, should be 131.4.

TABLE 3.—*Value in use computed according to formula used by income tax unit engineers, but using actual production for 1921, 1922 and 1923, and 1919 capacity*

	Pig iron	Steel ingots	Billets, blooms, and slabs	Rolled and finished steel
	Tons	*Tons*	*Tons*	*Tons*
1921 production	8,678,262	10,951,856	8,861,616	7,860,336
1922 production	12,027,163	16,034,590	15,248,949	11,785,331
1923 production	16,729,226	20,297,666	18,642,065	14,721,466
Total	37,434,651	47,284,112	42,852,630	34,367,134
Average	12,478,217	15,761,371	14,284,210	11,455,711
Average ratio capacity to production, 1910-1915	1.314	1.254	1.261	1.274
Necessary postwar capacity	16,436,377	19,764,759	18,012,389	14,594,576
1921 capacity	18,499,340	22,502,900	17,900,815	16,562,862
Value in use.....per cent	88	88	100.6	88.1

TABLE 4.—*Value in use computed according to formula used by income tax unit engineers, but using the average of 1921, 1922, 1923 actual production and 1919 capacity as factors*

	Pig iron	Steel ingots	Billets, blooms, and slabs	Rolled and finished steel
	Tons	*Tons*	*Tons*	*Tons*
Necessary postwar capacity as determined in Table 3	16,436,377	19,764,759	18,012,389	14,594,576
1919 capacity	18,169,535	22,186,600	19,325,000	16,104,610
Value in use.....per cent	90.5	89.3	93.2	90.6

TABLE 5.—*Value in use computed according to formula used by income tax unit engineers, but using actual production for years 1919, to 1923 inclusive, and 1919 capacity as factors*

	Pig iron	Steel ingots	Billets, blooms, and slabs	Rolled and finished steel
	Tons	*Tons*	*Tons*	*Tons*
Average actual production, 1919-1923	13,120,960	16,717,953	14,906,985	12,593,571
Ratio capacity to production, 1910-1915	1.314	1.254	1.242	1.274
Necessary postwar capacity	17,240,941	20,964,313	18,513,909	16,044,209
1919 capacity	18,168,525	22,186,600	19,325,000	16,104,010
Value in use (per cent)	94.9	94.7	95.8	99.6

TABLE 6.—*Value in use computed according to formula used by income tax unit engineers, but using actual production for 1923 and 1919 capacity as factors*

	Pig iron	Steel ingots	Billets, blooms, and slabs	Rolled and finished steel
	Tons	*Tons*	*Tons*	*Tons*
1923 production	16,729,226	20,297,960	18,642,065	14,721,469
Ratio capacity to production	1.314	1.254	1.242	1.274
Necessary postwar capacity	21,982,203	25,453,678	23,153,445	18,755,152

(Necessary capacity on this basis exceeds actual capacity for 1919, 1920, or 1921, or average of all three.)

TABLE 7.—*Ratio of 1919, 1920, and 1921 capacity to 1923 production*

	Capacity	Ratio capacity to production
Pig iron (production, 1923, 16,729,226):		*Per cent*
1919	18,168,525	108.6
1920	18,404,440	110.0
1921	18,499,340	110.6
Average	18,357,435	109.7
Average ratio capacity to production 1910-1915		131.4
Lowest ratio capacity to production 1910-1915		113.7
Steel ingots (production, 1923, 20,229,950):		
1919	22,186,600	108.9
1920	22,150,400	109.0
1921	22,403,900	110.7
Average	22,263,800	109.5
Average ratio capacity to production, 1910-1915		125.4
Lowest ratio capacity to production 1910-1915		110.8
Billets, blooms, and slabs (production, 1923, 18,642,065):		
1919	19,325,000	103.7
1920	19,258,700	103.3
1921	17,900,815	96.0
Average	18,827,505	101.0
Average ratio capacity to production, 1910-1915		124.2
Lowest ratio capacity to production, 1910-1915		104.5
Rolled and finished steel (production, 1923, 14,721,469):		
1919	16,104,010	109.4
1920	16,118,813	109.5
1921	16,562,690	112.5
Average	16,259,460	110.4
Average ratio capacity to production, 1910-1915		127.4
Lowest ratio capacity to production, 1910-1915		111.1

EXHIBIT F

CHART D

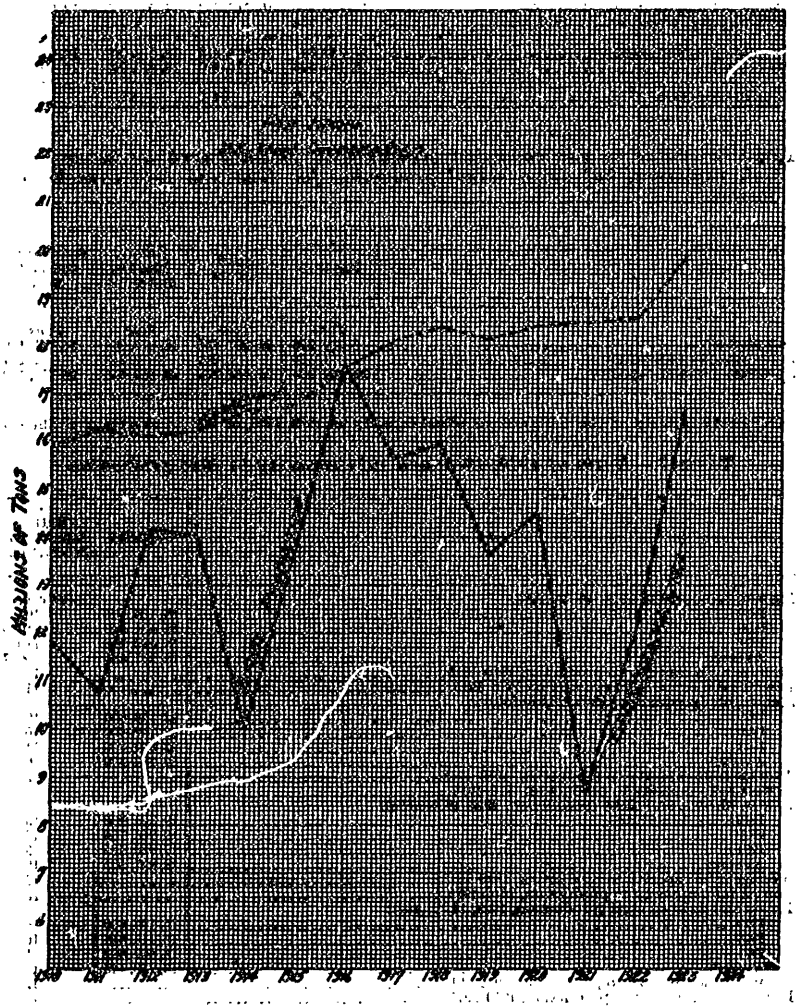


EXHIBIT F—Continued

CHART E

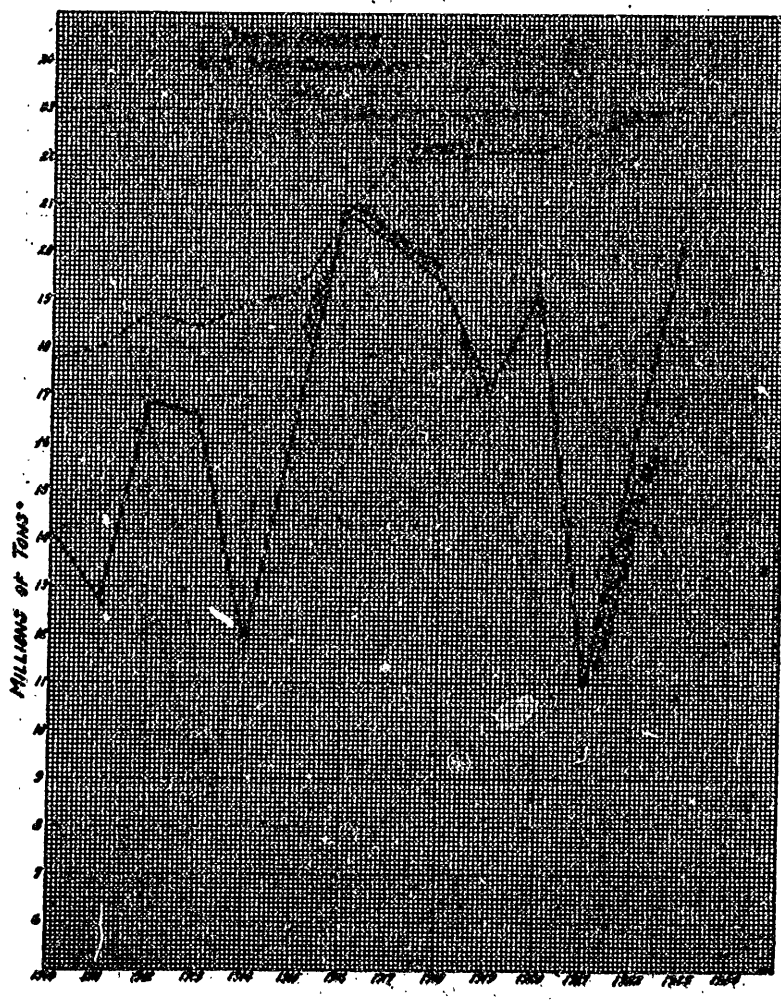


EXHIBIT F—Continued

CHART F

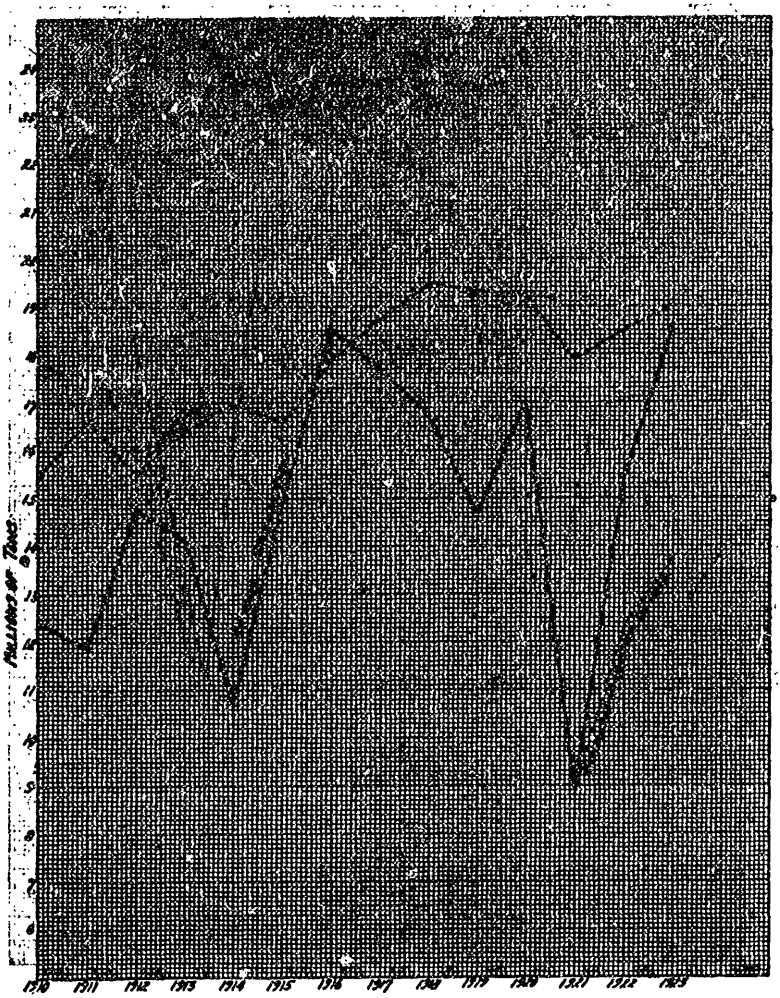


EXHIBIT F—Continued

CHART 9

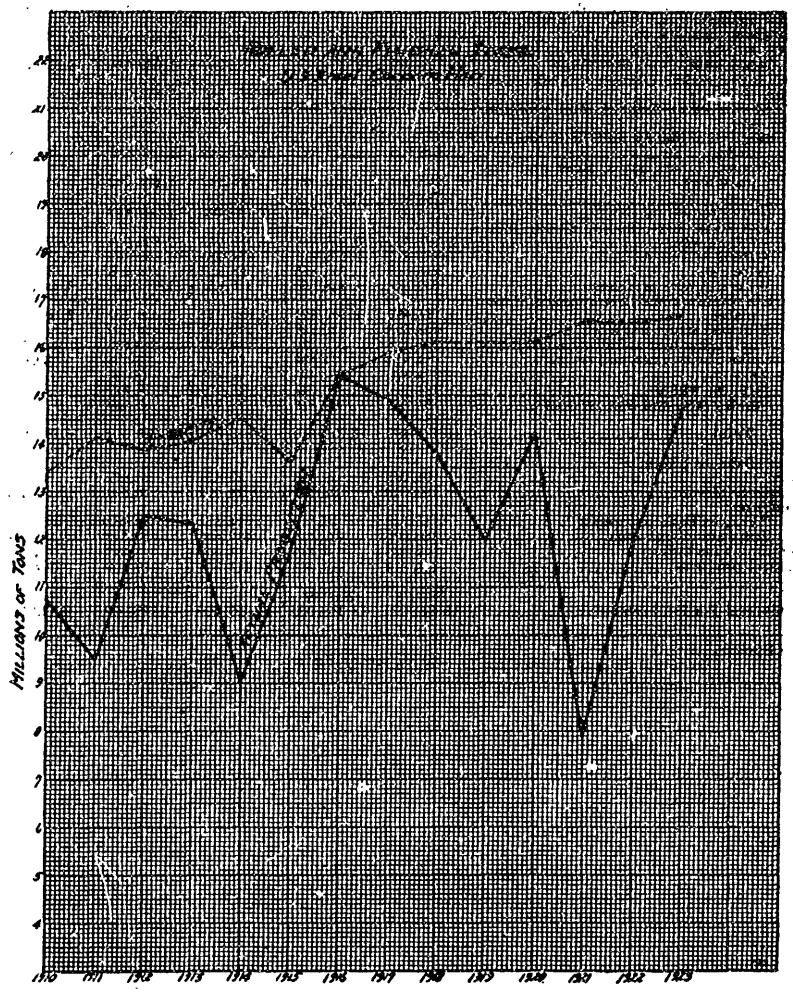


EXHIBIT G.—*Production, all products, 1918–1923*

	1923	1922	1921	1920	1919
Ores mined Lake Superior region (iron ore) Missabe and Vermilion ranges, Gogebic, Menominee and Marquette ranges. Southern region—Alabama (iron ore) Brazil, S. A. (manganese ore)	*Tons* 31,015,109	*Tons* 21,778,179	*Tons* 16,647,881	*Tons* 27,021,009	*Tons* 25,423,093
Limestone quarried	6,571,486	5,633,186	4,607,486	5,981,022	5,835,289
Coal mined (for use in manufacture of coke for steam, gas, and other purposes)	35,289,901	23,293,471	21,627,939	30,828,334	28,893,123
Coke manufactured (beehive ovens, by-products ovens)	18,837,631	13,237,058	9,825,264	16,208,111	15,463,649
Blast furnace product (pig iron, spiegel, ferromanganese and ferrosilico)	16,729,226	12,027,163	8,678,262	14,532,646	13,637,501
Steel ingot product (Bessemer ingots, open hearth ingots)	20,329,950	16,062,385	10,966,347	19,277,960	17,200,373
Rolled and other finished steel products for sale:					
Steel rails (heavy and light tee and girder)	1,649,906	1,225,999	1,480,049	1,490,616	1,361,358
Blooms, billets, slabs, sheet and tinplate bars	715,244	673,080	409,767	1,023,762	975,020
Plates	1,783,846	1,410,414	723,355	1,759,263	1,578,360
Heavy structural shapes	1,204,395	930,733	459,762	1,040,619	855,118
Merchant bars, hoops, skelp, light shapes, etc.	3,007,662	2,456,915	1,125,961	2,846,686	2,270,711
Tubing and pipe	1,563,962	1,178,611	984,285	1,429,691	1,192,582
Wire rods	213,518	153,495	88,232	254,968	161,053
Wire and wire products	1,636,560	1,404,563	915,651	1,757,141	1,438,439
Sheets (black and galvanized) and tinplates	1,774,437	1,504,121	1,024,542	1,610,531	1,381,515
Finished structural work	458,593	301,248	272,621	3,469	351,704
Angle splice bars and all other rail joints	288,118	218,536	108,397	235,913	188,707
Spikes, bolts, nuts, and rivets	84,456	72,531	80,291	93,464	39,009
Axles	154,876	96,403	22,567	97,145	75,494
Steel car wheels	104,271	78,247	35,101	73,819	36,946
Sundry steel and iron products	81,553	69,314	79,753	98,415	91,919
Total	14,721,469	11,785,331	7,860,334	14,228,502	11,997,935
Miscellaneous products			(1)		
Zinc	64,205	59,818	33,426	63,077	45,949
Sulphate of iron	36,079	32,389	24,499	40,291	35,197
Fertilizer:					
"Duplex basic phosphate"	15,748	16,513	14,528	14,683	24,450
Sulphate of ammonia	150,000	123,118	117,496	133,798	130,210
Ammonia (as liquor)	2,528	3,816	3,620	5,393	2,313
Benzol products	143,312	119,373	113,354	119,109	107,549
	Barrels	*Barrels*			
Universal Portland cement	14,400,000	13,168,000	12,499,000	11,980,000	9,112,000

[1] Spelter.

EXHIBIT G.—*Production, all products, 1913–1923*—Continued

	1918	1917	1916	1915	1914	1913
Ore mined Lake Superior region (iron ore) Missabe and Vermilion ranges, Gogebic, Menominee and Marquette ranges. Southern region—Alabama (iron ore) Brazil, S. A. (manganese ore)	*Tons* 23, 332, 939	*Tons* 31, 781, 769	*Tons* 33, 355, 169	*Tons* 23, 669, 676	*Tons* 17, 034, 981	*Tons* 28, 738, 461
Limestone quarried	5, 141, 365	6, 494, 917	7, 023, 474	5, 795, 925	4, 676, 479	6, 338, 509
Coal mined for use in manufacture of coke for steam, gas, and other purposes	31, 748, 135	31, 496, 823	32, 768, 281	26, 628, 482	21, 162, 293	30, 786, 573
Coke manufactured (beehive ovens, by-products ovens)	17, 787, 636	17, 461, 075	18, 901, 962	14, 500, 818	11, 173, 914	16, 663, 480
Blast furnace product (pig iron, Spiegel, ferromanganese, and ferrosilica)	15, 940, 954	15, 652, 928	17, 607, 637	13, 641, 508	10, 052, 457	14, 080, 730
Steel ingot product (Bessemer ingots, open hearth ingots)	19, 583, 493	20, 285, 061	20, 910, 589	16, 376, 492	11, 826, 476	16, 656, 361
Rolled and other finished steel products for sale:						
Steel rails (heavy and light tee and girder)	1, 471, 508	1, 594, 196				
Blooms, billets, slabs, sheet and tinplate bars	1, 489, 737	1, 692, 348				
Plates	2, 171, 362	1, 473, 625				
Heavy structural shapes	1, 079, 601	1, 004, 537				
Merchant bars, hoops, skelp, light shapes, etc	2, 159, 279	2, 650, 970				
Tubing and pipe	1, 190, 594	1, 234, 129				
Wire rods	209, 350	267, 071				
Wire and wire products	1, 445, 567	1, 821, 985				
Sheets (black and galvanized) and tinplates	1, 358, 119	1, 740, 949				
Finished structural work	503, 380	550, 744				
Angle splice bars and all other rail joints	145, 305	207, 846				
Spikes, bolts, nuts, and rivets	67, 514	91, 980				
Axles	141, 480	220, 291				
Steel car wheels	84, 331	110, 014				
Sundry steel and iron products	334, 356	282, 226	15, 460, 792	11, 762, 639	9, 014, 512	12, 374, 838
	13, 849, 483	14, 942, 911				
Miscellaneous products	41, 715	67, 418	55, 898	32, 031	28, 031	30, 424
Zinc						
Sulphate of iron	42, 321	43, 942	46, 263	35, 377	30, 212	33, 829
Fertilizer:						
"Duplex basic phosphate"	12, 022	11, 574	8, 618			
Sulphate of ammonia						
Ammonia (as liquor)						
Benzol products						
Universal Portland cement	*Barrels* 7, 237, 000	*Barrels* 10, 917, 000	*Barrels* 10, 425, 000	*Barrels* 7, 648, 658	*Barrels* 9, 116, 000	*Barrels* 11, 197, 000

EXHIBIT H.—*Capital expenditures, 1910–1923.*

Year	Total appropriations since January 1, 1908 (to cover capital expenditures)	Manufacturing companies	Coal and coke properties	Iron-ore properties	Transportation properties
1910	$40,000,000.00	$27,428,077.46	$2,499,887.65	$4,025,791.52	$11,792,336.62
1911	40,000,000.00	18,017,418.54	18,902,238.23	1,220,437.26	4,472,583.86
1912	40,000,000.00	8,923,224.48	277,590.18	1,640,285.54	2,487,877.35
1913	55,000,000.00	19,199,774.58	1,364,433.97	14,064,301.73	7,144,501.15
1914	55,000,000.00	10,757,593.34	420,624.22	1,601,198.28	9,315,011.26
1915	55,000,000.00	15,242,407.35	249,259.69	76,024.13	224,828.00
1916	55,000,000.00	44,677,874.79	2,354,901.12	610,538.00	15,480,194.61
1917	110,000,000.00	79,489,840.65	17,181,042.58	2,665,060.78	18,898,855.78
1918	110,898,914.10	56,134,496.81	18,825,227.17	2,718,166.35	8,831,699.24
1919	110,898,914.10	43,177,793.97	12,958,647.86	2,623,943.07	10,303,450.93
1920	140,898,914.10	37,677,329.18	[1]18,905,382.73	8,045,242.05	[2]30,844,518.70
1921	140,898,914.10	36,868,523.13	9,074,691.92	2,929,312.78	12,104,444.33
1922	140,898,914.10	16,076,739.39	5,987,116.08	224,538.16	3,761,234.88
1923	180,898,914.10	35,416,609.00	8,079,269.00	5,318,816.00	11,128,785.00

Year	Tennessee Coal & Iron Co.	Shipbuilding plants	Miscellaneous properties	Stripping and mine development (net)	Total
1910	$3,887,078.73	.....	$458,197.06	$3,009,852.76	$53,101,221.80
1911	5,069,983.85	.....	182,758.01	1,615,441.37	49,480,861.12
1912	1,833,094.21	.....	224,006.44	[3]1,606,716.59	13,773,361.56
1913	1,274,440.84	.....	144,035.39	[3]1,213,389.33	41,906,098.33
1914	495,264.16	.....	156,341.78	494,981.95	23,171,013.01
1915	1,461,224.19	.....	308,632.37	[3]2,224,944.13	15,337,481.58
1916	1,974,105.67	.....	612,618.50	[3]1,030,574.27	64,680,648.42
1917	4,796,021.24	.....	3,157,918.71	201,116.57	121,322,862.30
1918	15,074,218.58	$20,706,845.58	6,551,029.29	290,355.71	181,126,449.23
1919	(4)	5,934,730.49	12,300,554.93	2,337,929.72	89,042,050.97
1920	(4)	.....	6,638,278.81	2,552,906.72	104,664,758.10
1921	(4)	.....	5,965,374.87	4,965,101.14	71,976,448.17
1922	(4)	.....	784,698.18	2,727,355.80	29,575,662.84
1923	(4)	.....	1,939,929.00	[3]1,115,188.00	60,762,920.00

SUMMARIZATION

Year	Manufacturing companies	Amortization allowed	Difference	Reduced to 1913 pre-war dollar
1910	$27,428,077	.....	$27,248,077	$27,248,077
1911	18,017,419	.....	18,017,419	18,017,419
1912	8,923,224	.....	8,923,224	8,923,224
1913	19,199,775	.....	19,199,775	19,199,775
1914	10,757,593	.....	10,757,593	10,972,744
1915	15,242,407	.....	15,242,407	15,089,983
1916	44,677,875	.....	44,677,875	35,295,529
1917	[4]74,900,000	$6,922,100	67,977,900	38,067,624
1918	56,134,497	5,221,900	50,912,597	25,965,424
1919	43,177,794	1,656,000	41,521,794	19,930,461
1920	37,677,329	.....	37,677,329	16,578,025
1921	36,868,523	.....	36,868,523	25,070,596
1922	16,076,739	.....	16,076,739	10,771,415
1923	35,416,609	.....	35,416,609	23,020,796

[1] Included in manufacturing companies. [2] Ocean steamers, $22,853,630.94. [3] Credit. [4] Shipyards.

EXHIBIT I

Facilities of the United States Steel Corporation, 1915 to 1923, inclusive

Year	Number of works	Blast furnaces	Steel works		Rolling mills												Wire mills				
			Bessemer converters	Open hearth furnaces	Blooming, large billets, and slabbing mills	Small billets and sheet bar mills	Rail mills	Universal plate mills	Sheared plate mills	Structural shape mills	Wire rod mills	Skelp mills	Merchant mills	Hot mills, black plate for tinning	Sheet, jobbing, and plate mills	Piercing and rolling mills for seamless tubing	Wire drawing mills	Nail mills	Barbed and woven fence departments	Spring works	Rope and electrical works
1915	147	127	35	312	46	14	11	9	11	13	24	15	78	194	157	10	22	15	16	3	5
1916	146	129	37	328	48	14	11	9	12	13	24	15	83	217	156	14	22	14	27	3	5
1917	143	124	39	333	48	14	11	9	14	13	24	15	85	217	155	16	22	14	27	3	5
1918	145	124	38	334	49	14	11	9	15	14	24	15	87	215	155	16	22	14	27	3	5
1919	145	124	38	335	49	15	10	9	15	14	24	14	84	222	155	16	22	14	27	3	5
1920	145	124	38	333	49	15	10	7	13	14	24	18	86	222	155	16	22	14	26	3	5
1921	144	124	38	327	48	15	10	7	13	13	24	18	87	218	156	16	22	14	26	3	5
1922	143	124	38	330	49	16	8	7	12	13	25	18	85	218	157	15	23	15	22	3	5
1923	147	123	38	351	49	16	8	7	11	13	25	17	82	218	157	15	23	15	28	3	5

EXHIBIT I—Continued

Facilities of the United States Steel Corporation, 1915–1923, inclusive—Continued

Year	Pipe and tube works		Miscellaneous plants	Bridge and structural plants	Galvanized and tinning departments		Splice bar and rail joint shops	Spike, nut, and bolt factories	Department for cold-rolled products	Iron, steel, and brass foundries	Sulphate of iron plants	Cement plants	Warehouses	Railway equipment		Marine equipment		
	Welding pipe furnaces	Seamless tube mills			Galvanizing department	Tinning department								Locomotives	Miscellaneous equipment	Oversea trade	Great Lakes trade	Ohio River trade
1915	48	3	37	20	30	20	5	5	5	23	12	6	66	1,203	52,195	9	98	98
1916	48	3	41	19	31	21	3	5	5	23	12	5	67	1,374	54,303	9	104	113
1917	48	3	43	18	30	21	6	5	4	20	12	5	63	1,382	59,389	9	106	133
1918	48	3	45	18	30	21	5	5	4	21	12	5	66	1,421	61,999	7	103	198
1919	48	3	41	18	30	21	5	5	4	21	12	5	66	1,445	62,258	7	106	250
1920	48	3	41	18	30	20	5	7	4	22	12	5	15	1,470	63,960	23	106	273
1921	50	3	41	18	30	20	5	7	4	22	12	5	15	1,477	64,408	34	108	298
1922	50	3	42	18	31	20	7	7	5	23	12	5	15	1,484	64,144	35	102	292
1923	49	3	42	19	33	20	7	7	5	24	12	5	1	,501	65,123	35	103	348

EXHIBIT J

EXTRACT FROM 1920 REPORT UNITED STATES STEEL CORPORATION TO STOCKHOLDERS

MANUFACTURING PROPERTIES

Total expended during the year..... $37,677,329.18

Carnegie Steel Co., work completed: Homestead works—125-ton pouring crane at open-hearth plant No. 2; roofs over crane runways in shipping yards at 28-inch blooming mill and 35-inch structural mill; run-out table and billet transfer at 28-inch blooming mill; universal boring, drilling, and milling machine for armor plate; increasing heat treating capacity in armor plate department; office building and comfort station for 30-inch, 42-inch, and 128-inch mills; 60-ton locomotive crane. Edgar Thomson works—Additions to blast furnace C; extension to facilities of electrical repair shop; new roof on powerhouse; bar piler for No. 4 mill. Duquesne works—Rebuilding blast furnace No. 5; additions to cast house, hoisting and charging facilities, and piping at blast furnace No. 6; 6-ton electric ferrosilicon furnace in cast house at blast furnace No. 2; ingot scale at soaking pit building; building for blacksmith and babbit shops; enlarging car repair shop building; extending pouring and escape platforms in open-hearth plant No. 2; convenience building for open-hearth department. Carrie furnaces—Additions to blast furnaces Nos. 3, 4, and 6; gas-washing equipment at blast furnace No. 5; new power-station building; 15,000-kilowatt turbogenerator with boilers and auxiliary equipment. Lucy furnaces—20-ton locomotive crane. Isabella furnaces—New building over pig-casting machine; 20-ton locomotive crane. Schoen Steel Wheel works—Additions to 10,000-ton press; 2 cutting-off machines and 1 lathe for forging department; 4 standard gauge cars. Painter works—Additions to boiler plant. New Castle works—3 new hot-blast stoves at blast furnace No. 1; intake and well for water supply; condenser and general supply pumps at blast furnace No. 1; locker, wash, and storage rooms at blast furnace No. 2. Ohio works—Condenser for 40-inch blooming mill engine; steam shovel. McDonald works—18-inch band mill and 10-inch hoop mill. Mingo works—New ore bridge; intake at river pumping plant; storage building for brick; two 25-ton locomotive cranes. Monessen works—10-ton locomotive crane. Bellaire works—2 electric locomotive for coal-mine operation. The coal dock and storage facilities at Wilson, Pa., and the marine ways on the Monongahela River at Coal Valley, Pa., were completed. For river transportation there were acquired during the year 1 steamer and 1 tugboat. Land purchased—81 acres at New Castle works, 14 acres at Ohio works, additional reservoir property in the Shenango and Beaver River Valleys.

Work in progress: Homestead works—six 125-ton pouring cranes at open-hearth plant No. 3; steel ladles for open-hearth plant No. 3; additional cinder-handling facilities at open-hearth plant No. 4; hydraulic pumps and pressure system at 32-inch slabbing mill to serve 32-inch, 72-inch, 84-inch, and 110-inch mills and open-hearth plants Nos. 1 and 2; extension of gas mains for natural gas and by-product coke-oven gas; motor drive for 33-inch finishing mill; 1,000 kilowatt motor-generator set for primary direct current station; restaurant building. Edgar Thomson works—Greenawalt sintering plant No. 2 at briquetting plant; reconstruction of stockyard bunker and larry system at blast furnaces; extending electric stock transfer system; new condensing equipment at blast furnaces and No. 1 engine room. Duquesne works—Rebuilding blast furnace No. 3 and stock yard; remodeling 3 hot-blast stoves at blast furnace No. 3; coal-pulverizing equipment for electrode factory; extension to inspection building at upper works. Carrie furnaces—Entrance tunnel to works under railroad tracks. Schoen Steel works—Additional wheel finishing equipment for units Nos. 1 and 2. Upper Union (Pittsburgh) works—Crane runways and electric overhead traveling cranes for raw material stock yard; general office building extension. New Castle works—Dry-gas cleaner at blast furnace No. 1. Ohio works—New boiler plant including new building, four 1,300-horsepower boilers and auxiliary facilities; reinforcing bin system at blast furnaces Nos. 1 to 4; flying shear at 23-inch billet mill. Mingo works—Dry-gas cleaner for blast furnace No. 3; 3 hot-blast stoves at blast furnace No. 2; fireproof storage building. Bellaire works—Emergency hospital, employment, and general office building.

Illinois Steel Co., work completed: South works—Additions to blast furnace No. 1; 100-ton pouring crane at open-hearth plant No. 1; 4 additional soaking pits and improvements to heating facilities at slabbing mill; gantry crane at slabbing mill billet dock; straightening machine in structural mill finishing end; sanitary buildings at blast furnaces Nos. 5, 10, and 12; 40-inch slabbing mill and blacksmith shop. Joliet works—Additions to blast furnace No. 3; equipment for production of oil tempered track bolts. Land purchased—34 acres dolomite limestone land.

Work in progress: South works—Additions to blast furnace No. 4; 3 waste heat boilers at No. 3 duplexing open-hearth plant; new electric power plant including building and four 3,000-kilowatt gas engine driven electric units. Joliet works—Rebuilding 4 batteries of ovens and regenerator walls at by-product coke plant. Milwaukee works—Extending building and crane runway at 9-inch merchant mill No. 2.

Universal Portland Cement Co., work completed: Buffington plants—Air compressor; restaurant building. Universal plant—Screen system for the Williams mills. Duluth plant—Storage building for lime and plaster.

Work in progress: Buffington plants—Strengthening trestle approach to raw-material building at mill No. 4; additional kiln and boiler unit for burner building at mill No. 6; dust collecting system in raw material building at mill No. 6. Universal plant—Coal drying and pulverizing plant; dust-collecting system on kiln stacks; dwelling houses and recreation center; plant restaurant.

Indiana Steel Co., work completed: Gary works—Additions to blast furnaces Nos. 8 and 12; 10-inch hand-operated merchant mill; 20 tank cars for benzol products; 14 Clark dump cars; 50-ton coal transfer car for coke plant.

Work in progress: Gary works—12-inch and 20-inch strip mills; buildings over crane runways in billet and blooming mill chipping yards; enlarging coal-storage yard; three coal-unloading machines at by-product coke plant; 200-foot extension to electrical repair shop and additional equipment; additional finishing equipment in merchant mills.

Minnesota Steel Co., work completed: Duluth plant—Plant for drying ammonium sulphate; 1 locomotive, 16 flat cars, 4 dump cars, and 1 dirt spreader.

Work in progress: Duluth plant—Additions to 28-inch rail mill; rod and wire mill; extending ore, coal, and limestone storage yard; two 7,500-kilowatt turbogenerators in power station No. 2; two 400-horsepower boilers, stokers, conveyers, and auxiliary facilities in boiler house No. 2; roll-shop and machine-tool equipment.

Lorain Steel Co., work completed: Johnstown works—Sprinkler system in pattern storage building; extending coal-mine plane; automatic bolt heading and threading machine.

Work in progress: Johnstown works—Extending iron and steel foundries; pattern storage building.

The National Tube Co., work completed: Lorain works—Additions to down comers and dust catchers at blast furnace No. 2; automatic air heads on 5 blowing engines at blast furnaces; equipment for upsetting tubing, 2 to 4 inch sizes; 9,000-kilowatt frequency changer and auxiliary equipment to permit operation with purchased power; dredging new channel for Black River; 3 plant restaurants; 20 steel underframe flat cars; 7 tank cars.

Work in progress: Lorain works—2 additional lap weld mills; additional coupling shop finishing equipment; extension to machine shop and machine tools; enlarging blacksmith shop, 1,000-ton steam-hydraulic forging press, and 15-ton traveling crane.

National Tube Co., work completed: National works—Rebuilding blast furnace No. 3; machine tools for coupling tap and general machine shops; four 15-ton locomotive cranes. Christy Park works—New welding department for pipe 20 to 96 inches diameter, including welding shop, finishing shop, and auxiliary buildings and machinery; equipment for forging compressed-gas cylinders. Continental works—Additional coupling finishing equipment and rearrangement of coupling shop; machine tools. Pennsylvania works—Two 15-ton locomotive cranes; machine tools. Riverside works—Scale removing equipment for butt weld mills Nos. 1 to 5; changing butt weld mills Nos. 1, 2, 3, and 5 from steam to electric drive; 15-ton locomotive crane. Ellwood works—Threading department for No. 5 hot mill; machine tools. Land purchased—Site for mill offices adjoining National works at McKeesport, Pa. Sixty-five steel underframe flat cars were purchased for service at the various works.

Work in progress: National works—Ore thawing house at blast furnaces; remodeling pig-casting machine; additional cutting-off and threading equipment at lap weld mills; pumping equipment and changes to settling basin at pumping plant. Continental works—Equipment for making butt weld couplings. Pennsylvania works—Additional coupling finishing equipment; 4 pairs of 12-inch threading machines. Ellwood works—Equipment for forming automobile axles, torque tubes, etc.; 4 motor-driven cutting-off machines.

American Steel & Wire Co., work completed; Newburgh Steel Works—Additional air compressor; 2 locomotive cranes; 20 side dump cars. Newburgh Wire works—Bundling and storing facilities for galvanized wire. Central Furnaces—Additional electric power transmission line to Newburgh Steel Works; retaining wall along railroad property; sanitary building at blast furnace A. By-products Coke works—Additional plant tracks; extension to storehouse; subways under quenching track and coal and coke tracks; purifiers for gas. Cuyahoga works—Equipping strip mill No. 1 to supply hot rolled flats; facilities for purifying and enriching coke oven gas in box annealing department; mechanical bundle-lifting devices at wire drawing blocks; universal grind drill and planer for machine shop; roll grinding machine. American works—Electrically operated auto crane. Consolidated works—Modernizing rod handling facilities; 15-ton locomotive crane. Salem works—8-block 22-inch rod frame for wire mill. Waukegan works—Increasing patenting capacity, including new building, 60-foot furnace, and 40-wire take up frame; improving wire handling facilities; die reaming equipment. Scott Street works—Inclosing coal trestle at boiler house; 8 Tiffin nail machines; locomotive crane. DeKalb works—Roof over rod unloading dock; locomotive crane; 6 second-hand gondola cars. Anderson works—15-ton locomotive crane. Shoenberger works—Duplex compound pump for hydraulic system; horizontal boring, drilling, and milling machine. Rankin works—Employment bureau building. Braddock works—Equipping 4 annealing furnaces to burn coal; steel plate runways in wire and rod mills. Neville works—15-ton locomotive crane. Allentown works—Extension to cooper shop building. Trenton works—Rebuilding No. 2 wire mill building; mechanical bundle lifting devices at rod and wire blocks; storage building and saturating equipment for hemp; sanitary facilities for various departments. Worcester, north works—Additional 40-wire patenting outfit; extension of electro-galvanizing equipment; continuous lead annealing facilities; 20 22-inch wet wire blocks; 8 cold rolling machines; locomotive crane with caterpillar tractors. Worcester, south works—Additions to facilities for manufacture of copper wire; 3-pot annealing furnace; extension to storage space in spring department; machine tools; steam shovel; 6 self-dumping steel cars for slag and ashes; 150 narrow gauge rod cars. Worcester, central works—New baker in wire mill; 12-block rod frame. New Haven works—Electric hoists for rod frames; die reaming equipment. Fairfield works—Equipping cleaning house baker to burn coal as fuel; black strippers for wire mill. Hamilton, Canada, works—3 standard fence machines; 3 bale tie machines Car equipment—250 steel hopper cars; 100 steel tank cars. Land purchased—Site for warehouse at Winnipeg, Canada. Buildings equipped to be used for emergency hospital, employment bureau and assembly hall were built at Newburgh Steel, American, Waukegan, Rockdale, Scott Street, Anderson, Braddock, Allentown, and Worcester, Central works. For use at the various works there were purchased 25 electric tractors, with spare batteries, and 500 wire mill buggies.

Work in progress: Newburgh Steel works—New water cooling towers at reservoir. Central Furnaces—Additions to slag crushing plant. By-Product Coke works—Sewer for diverting Burke Brook. Cuyahoga works—Facilities for handling and storing hot rolled flats at strip mills Nos. 1 and 3; patenting furnace and auxiliary equipment for spring wire; new machine shop and electrical shop buildings and equipment. American Works—Additions to facilities for manufacture of fine wire. H. P. works—New boiler plant. Salem works—20 double blow nail machines. Waukegan works—New boiler plant; additional equipment for making springs. Rockdale works—3 American fence machines. Scott Street works—Water filtration plant. Anderson works—Ash handling system for boiler plant. Rankin works—Cooperage storage building. Braddock works—4 additional annealing furnaces. Trenton works—Extension to rope shop. Worcester, South works—Coal handling plant; standard gauge track connection to lower yard; equipment for manufacture of helical springs. Worcester, Central Works—Sanitary building. Worcester, Electrical Works—Extension of cable facilities. New Haven Works—New section for rope machine. Pacific Works—Additional stranding machine.

Donora Zinc Co., work completed: Donora works—Additions to zinc refining furnaces; automatic ore handling facilities.

Work in progress: Donora works—Sintering plant for recovery of furnace residue.

American Sheet & Tin Plate Co., work completed: Gary works, tin mill—24 additional tin mills and auxiliary facilities; 24 mechanical doublers. Gary works, sheet mill—Increasing capacity of annealing furnaces at Nos. 1 and 2 plate mills; geared motor drives for 8 sheet mills. Vandergrift works—Increasing handling facilities in open hearth department, including two 75-ton cranes and six 50-ton ladles. Shenango works—Stoker equipment for 30 hot mill furnaces; 10-ton crane for assorting room, boxing department and warehouse; four mechanical doublers; automatic sprinkler system for fire protection. New Castle works—Stoker equipment for 20 hot mill furnaces; tractor system for handling boshes from white pickler to tin house. Wood works—two 24-inch hot mills; improved facilities for handling cut bars; drinking water system with refrigerator plant. Scottdale works—Emergency hospital building. Pittsburgh works—Extension to power house building; additional 200-k. w. generator; welfare building. Sabraton works—Air cooling system in tin house; community house. Wellsville works—Automatic sprinkler system for fire protection; four steel hopper cars. Chester works—Additional facilities for manufacture of black plate. Dover works—Extension to boiler house, concrete stack and 550-h. p. boiler; enlarging annealing building; additional stand of cold rolls. Laughlin works—Mechanical feeders and air cooling system for tinning machines. Cambridge works—Emergency hospital building. Guernsey works—Emergency hospital building. Land purchased—7.25 acres for residence property at Vandergrift works; 5.04 acres adjoining New Castle works; 22 lots adjacent to Shenango works; reservoir property in the Shenango and Beaver River valleys.

Work in progress: Gary works, sheet mill—Motor drive for finishing stand of No. 2 plate mill. Vandergrift works—New pickling and galvanizing department buildings and equipment; new mill engines and drives on hot mills Nos. 1 and 2; replacement of boilers and equipment at No. 1 boiler house; 19 dwelling houses. National works—Drinking-water system with refrigerating plant. New Castle works—Extension to power-house building; additional 800-kilowatt generator. Wellsville works—Electric tractors for handling cut bars. Laughlin works—New carpenter shop building; welfare building. Aetna-Standard works—3 mechanically operated gas producers, La Belle works—Mechanical feeders and air-cooling system for tinning machines.

Sharon Tin Plate Co.—Work completed: Sharon works—New storehouse building; 42-inch roll lathe; 15-ton locomotive crane.

Work in progress: Sharon works—Extending bar storage building; 2 scrap-bundling presses.

American Bridge Co.—Work completed: Gary works—150-ton track scale; fuel-oil storage tank. Ambridge works—New annealing furnace; and blast equipment in foundry cleaning shed; two 5-ton assembling hoists; lavatory and toilet building at shipping yard. Pencoyd works—New carpenter shop; roof trusses in 28-inch mill; wash and locker room for 12-inch and 20-inch rolling mills. Trenton works—New bridge shop, power plant and auxiliary facilities to modernize plant. Land purchased—1 acre adjoining Pencoyd works.

Work in progress: Pencoyd works—Additional electric generating capacity, including 1,500-kilowatt turbo-generator.

Union Steel Co.—Work completed: Donora steel works—Additional boiler capacity at steam power plant; enlarging soaking pit furnaces. Donora Wire works—New foundation for 16-inch roughing train at Nos. 1 and 2 rod mills; steel treating tanks for water purifying plant; sanitary building. Farrell works—Rebuilding 3 open-hearth furnaces; 20-inch water line in open-hearth department; carpenter and pattern making shop; 2-story hospital, employment and assembly hall building; 2 switching locomotives; 5 side dump cars. Land purchased—Site for new office building at Donora Steel Works.

Work in progress: Donora steel works—River dock and crane handling facilities for river shipment of billets, etc.; ore thawing equipment. Donora wire works—Additions to boiler plant including 550-h. p. boiler; rooming house for employees; employment bureau building. Farrel works—Reconstruction of blast furnace No. 2; coal handling facilities at boiler house. Mercer Works—Wash and locker building for 650 men.

Clairton Steel Co.—Work completed: Clairton works—Enlarging office building; 15-ton locomotive crane.

Work in progress: Clairton works—Equipping 6 blooming mill boilers to burn coke breeze; 20 flat cars for open-hearth department.

Clairton Byproduct Coke Co.—Work completed: Clairton works—Concentrated ammonia plant; evaporating plant for waste liquor; 2 quenching cars; steam shovel; 32 tank cars for benzol.

Work in progress: Clairton works—Chemical fire extinguishing system for benzol plant; 2 tanks for tar storage.

Federal Shipbuilding Co.—Work completed: Kearney yard—Extending 5 shipways with concrete construction; extension to copper and sheet metal shop; motor-driven planer; 60-inch high duty engine lathe; additional machine tools; 30 steel underframe cars.

Work in progress: Kearney yard—10, 1,000-ton capacity floating dry dock and auxiliary facilities; vessel outfitting shop; extension to foundry building; fuel oil storage tank; motor-driven air compressor.

Canadian Steel Corporation (Ltd.), the marine slip and unloading dock at Ojibway, Canada, was practically completed. Further progress was made in the construction of the 4 blast furnaces, a field fence building and a general machine shop building.

Tennessee Coal, Iron & Railroad Co., manufacturing properties—Work completed: Ensley works—Additions to blast furnace No. 3; increasing boiler capacity at blast furnace No. 1 steam plant; extension to water circulating system at blast furnaces; equipping open-hearth furnaces to burn tar as fuel. Bessemer furnaces—Equipment of blast furnace No. 1 to make ferromanganese; additions to blast furnace No. 2. Central water works—Waste water recovery plant and pumping station. There were purchased during the year 3 switching locomotives and 30 steel coke cars. Additional tracks were acquired for operations between the steel mills and the ore and coal mines.

Work in progress: Ensley works—Dry gas cleaner for blast furnace No. 3; new bins and track trestle at bottom house; scrap shearing and handling facilities; reconstruction of employees' quarters. Bessemer rolling mills—New motor-drives for 12-inch and 16-inch mills.

Ore, coal, and limestone properties, work completed: Ishkooda mine—Sewerage disposal plant. Wylam mine—Additions to pumping plant at No. 4 mine. Edgewater mine—12 electric driven mine cars.

Work in progress: Muscoda mine—Double drum electric hoist; electric transmission line; 10 mechanical ore unloaders. Vanns quarry—Additional crushing, screening, and washing equipment. Pratt mine—Opening and equipping No. 18 mine, Hamilton Slope. Edgewater mine—Extension to electrical repair shop building. Bay View mine—Additional mine and welfare buildings; 125 tenement houses. Docena mine—Pumping station.

Fairfield Steel Co., work completed: Steel works—Gantry crane and runway; bolt, nut, and rivet shop; extension of unloading crane runway; additional crane facilities. By-product coke plant—154 additional coke ovens; enlarging benzol plant.

Work in progress: Steel works—Fabricating plant for ship and car material; additions to finishing end of bar, structural and plate mills; pipe and blacksmith shop; runout table from scales in plate mill shipping building.

Chickasaw Shipbuilding & Car Co.—Works completed: Chickasaw Plant—Equipping berths Nos. 7 and 8 for barge building.

COAL AND COKE PROPERTIES

Total expended during the year..... $18,905,382.73

Of above total expenditure, $11,517,149 was for the acquirement of additional acreages of coking and gas coal, in the Connellsville district, in Greene and Carroll Counties, Pa., Barbour County, W. Va., Harlan County Ky., and in the Illinois and Indiana coal districts.

In the Connellsville district there were expended $272,815.92 for additional housing facilities at Dilworth, Palmer, Maxwell, Gates, Edenborn, and Leisenring No. 1 works. Bathhouses at Palmer, Maxwell, and Edenborn works were completed, the drainage and sanitary conditions were improved at Palmer and Collier works and at Maxwell works a filtration plant for domestic water supply is being installed. The consolidation of Gates and Edenborn Mines and tracks for underground haulage from Lambert and Ralph works to Palmer works were completed. Concreting the air and hoisting shafts at Lambert and Redstone works, a coal stripping plant at Leekrone works and a tipple

and bin at Kyle works were completed. Slate handling facilities were installed at Continental No. 2 and Lemont works. At Leisenring No. 3 works the boiler house is being rebuilt and at United works additional boiler equipment is being installed. A brick supporting arch in the Kyle section of Yorkrun works is being constructed and additions are being constructed at Leisenring No. 1 works to protect the shaft bottom and provide air and water courses. An electric traction haulage system is being installed at Phillips works and at Colonial No. 1 works an electric system was completed for conveying workmen from mine entrance to place of work. Additional pumping equipment to remove mine water was completed at Yorkrun and Phillips works and is also being installed at Juniata and Calument works. A locomotive crane, emergency pumping equipment and machine tools were purchased for the Everson shops. Additions were made at Adah coal loading dock. At Whitney works a new water pipe line was installed. At Ronco works additions were made to the tipple and the hoisting shaft was lined with concrete. At Filbert works a power transmission line is being installed and at Bridgeport works a storage bin to facilitate loading coal into barges is being erected. There were expended during the year $444,026.66 for additional equipment at various mines including 4 locomotives and 1,695 steel body mine cars.

In the Pocahontas field, West Virginia, there were expended $1,034,934.01 for additional housing facilities at Nos. 8 to 12 works, a brick bathhouse at No. 6 works and a lodge hall for colored employees at No. 3 works. Expenditures during the year applying on the coal plant at Lynch, Ky., and for the purchase of a plant at Philippi, W. Va., aggregated $2,691,729.14. For 600 steel gondola hopper cars there were expended $2,075,208.05.

In the Illinois coal field a new steel tipple, with auxiliary facilities, was completed at Vermilion works. Heavier rails were laid in the track connection to the works, additional electrical mine equipment installed and the bathhouse enlarged at Middle Forks works. Extensions were made to the plant buildings and equipment at Bunsenville works. Three electric gathering locomotives were acquired at Universal works.

In the Sygan coal field a new mining plant, No. 4, was purchased. At works No. 2 a new shaft is being opened and equipped and 3 single and 5 double tenements are being built.

IRON AND MANGANESE ORE PROPERTIES

Total expended during the year $8,046,342.05

The foregoing aggregate expenditure includes, in addition to the cost of plant construction mentioned below, the amount paid in purchase of manganese ore property in Brazil, and for exploring and opening up new ore deposits on the Lake Superior Ranges, including cost of additional surface land in the town of Hibbing, Minn.

Riverton mine—Account equipping shaft No. 3 for electric operation. Aragon Mine—Equipment of shaft No. 5 for electric operation. Norrie-Aurora mines—Equipping Pabst shaft H; clean water supply for mine equipment; account 400-horse-power boiler and coal and ash handling facilities at Pabst shaft G power house. Davis-Puritan mines—Account equipping mines for electric operation. Tilden mine—Hoisting plant. Monroe-Tener mines—Heating system for district headquarters. Hartley mine—15-ton locomotive crane; drill; tie tamping outfit. Wellington mine—Equipping new mine. Eveleth district—15-ton locomotive crane. Spruce mine—Enlarging office building. Leonidas mine—Account shop equipment. Virginia district—Dwelling for superintendent. Canisteo mine—Locomotive; track shifting crane. Holman mine—Track shifting crane; air-operated spreader. Hibbing district, central addition—New buildings on town site, including hospital, hotel, apartment house, garage and store buildings were practically completed. Hull-Rust mines—10 locomotives; 300-ton and 50-ton revolving steam shovels; 15-ton locomotive crane; steel air-operated spreader. Sellers mine—15-ton locomotive crane. Morris mine—15-ton locomotive crane.

There are being constructed 144 dwellings at Davis-Puritan, Pioneer, Sibley mines and at various locations in the Canisteo, Hibbing, and Eveleth districts. For stripping operations in the various districts 130 stripping cars are being acquired.

TRANSPORTATION PROPERTIES

Total expended during the year..... $30,844,518.70

The above total includes the cost of additional equipment acquired by the several railroad companies, viz, 34 locomotives, 529 steel hopper cars, 500 steel underframe box cars, 20 self-dumping steel cars, 5 way cars, 4 tank cars, and a 25-ton locomotive crane. For this equipment there were expended $4,500,040.41.

During the year there wer expended $22,853,630.94 account construction of 27 ocean-going steamers for the United States Steel Products Co. These vessels are being built at the shipyards of the subsidiary companies and 16 of the steamers had been delivered at the close of the year, 10 from the shipyard at Kearnsy, N. J., and 6 from the shipyard at Mobile, Ala.

By Union Railroad Co.: For shears at scrap yard, $19,886.23; account rebuilding 1,950 steel gondola cars, $49,373.58.

By Monongahela Southern Railroad Co.: Completing construction of main track and for second track on the Clairton Branch, $376,049.50; additional tracks near Monongahala Junction, Pa., $21,259.55; tracks for unloading filling, $62,287.76.

By Saint Clair Terminal Railroad Co.: New locomotive coaling station, Clairton, Pa., $34,784.39.

By Bessemer & Lake Erie Railroad Co.: For additional air compressor, air line and electric power transmission line at shops, Greenville, Pa., and for a locomotive coaling plant at North Bessemer, Pa., $82,630.91; for branch line and additions to tracks to serve coal mines near Rural Ridge, Pa., $96,692.03; filling and improving grades, $47,744.10; increased cost of heavier track material laid in renewals, $213,827.09.

By Newburgh & South Shore Railway Co.: Account new car repair shop at Marcelline yard, $226,869.43; interchange tracks and track extensions at Seneca yard and for various side tracks, $22,871.68.

By Elgin, Joliet & Eastern Railway Co.: For 2 conveyor units for cinder pit at Waukegan, Ill., 2 electric cranes for steel car shop and new blower house for roundhouse at East Joliet, Ill., $80,253.22; for coal yard tracks at North Chicago, Ill., and for additional plant sidings and miscellaneous tracks at various points, $53,963.86; ballast for improving roadbed and for excess cost of heavier rails laid in renewals, $88,632.78.

By Chicago, Lake Shore & Eastern Railway Co.: At Gary, Ind., extension to power-plant facilities, machinery in locomotive shop and new locomotive turntable, $44,060.24; at Kirk yard, Gary, Ind., 8 portable buildings for labor camp, $31,316.46. For tracks to serve the new band and strip mills, track additions at coke plant and turnout on lake front, all within the steel plant, Gary, Ind., $38,691.67. For miscellaneous tracks at Kirk Yard, Gary, Ind., $20,458.65.

By Duluth & Iron Range Railroad Co.: For 2 lathes for shops at Two Harbors, Minn., extension of retaining wall at Duluth, Minn., and locomotive coaling station at Endion, Minn., $43,543.57; new track scales and concrete water tank at Biwabik, Minn., addition to interlocking plant at Webster, Minn., and section house at Ridge, Minn., $39,771.92; extension of siding at Robinson, Minn., spur track to Eve Lake at Ely, Minn., and 3 sidings off the Wales Spur, $28,500.58; excess cost of heavier track material laid in renewals, $29,497.66; concrete bridge over tracks at south end of yard at Biwabik, Minn., $26,304.08; superheaters on locomotives and rebuilding 6 caboose cars, $47,370.56; excess cost of steel wheels replacing cast iron wheels on freight equipment, $24,473.75.

By Duluth, Missabe & Northern Railway Co.: At Duluth, Minn., additional expenditures to complete new ore dock No. 6, $118,412.13; at Proctor, Minn., drainage system for ore steam yard, concrete cinder pit at north engine terminal and additional machine tools for shops, $51,945.46; at Mitchell, Minn., 4 dwellings, addition to hotel and enlarging section house, $29,754.80; at Hibbing, Minn., addition to freight house and at Brooklyn, Minn., new section house, $19,991.18; at Duluth, Minn., tracks at ore dock and at Missabe Mountain Mine additions to track system, $36,978.45; steel and concrete bridges at various points, $169,795.04.

By Pittsburgh Steamship Co.: Account service deck at Sault Saint Marie, Mich., $116,219.52.

MISCELLANEOUS PROPERTIES

Total expended during the year..... $6,638,278.81

For new store buildings at Ronco, Gates & Maxwell works, in the Connellsville District, Pa., at Ream, W. Va., and at Lynch, Ky., and enlarging store at Brownsville, Pa., $224,742.92; 40-inch gas pipe line for conveying coke oven gas from by-product coke plant at Clairton, Pa., to Homestead works of Carnegie Steel Co., $493,555.61; 8.5 miles of 8-inch pipe line for natural gas from wells in Gilmer County, W. Va., to main pipe line, $63,657.26; gas booster stations at Toll Gate and Smithburg, W. Va., and Masontown, Pa., $49,843.86. At Gary, Ind., for additional water pumping unit, 2,000,000 cu. ft. capacity gas holder and electric transformer equipment, $172,508.24 and for extension of water, gas and electric light systems, $139,704.04; for water filtration plants in Westmoreland and Fayette Counties, Pa., $144,985.17; for street railway facilities and water, gas and electric systems at Fairfield and Mobile, Ala., $200,218.63; at Wilson, Pa., town site and employees' dwellings, $390,965.78; at McDonald, Ohio, town site and employees' dwellings, $1,000,942.08; houses for employes at Homestead, Duquesne, East Pittsburgh, Clairton, and Ellwood City, Pa., $689,793.79; at Morgan Park, Minn., for 180 dwellings and street improvements, $710,978.22; at Fairfield and Mobile, Ala., for dwellings and townsite improvements, $1,193,413.07. At the limestone properties in Pennsylvania, Maryland and West Virginia for 5 boarding houses and 46 dwellings, $140,950.53, for movable quarry equipment including steam shovels, locomotives and cars, $166,926.27.

EXTRACT FROM 1921 REPORT

MANUFACTURING PROPERTIES

Total expended during the year..... $36,808,523.13

Carnegie Steel Co., work completed: Homestead works—Six 125-ton pouring cranes at open-hearth plant No. 3; 28 steel ladles for open-hearth plant No. 3; rebuilding two 5-hole banks of pit furnaces and installing transfer car at 32-inch slabbing mill; hydraulic pumps and pressure system at 32-inch slabbing mill to serve 32, 72, 84 and 140 inch mills and open-hearth plants Nos. 1 and 2; motor drive for 33-inch finishing mill; motor drive for tables and shears at 23, 28, 33, 35 and 38 inch mills; additional facilities in bolt and rivet shop; 1,000 kilowatt motor-generator set for primary direct current station; restaurant building; comfort station at 35 and 40 inch mills. Edgar Thompson works—Rotary top on blast furnace I; reconstruction of stockyard bunker and larry system of blast furnaces; extending electric stock transfer system; new condensing equipment at blast furnaces and No. 1 mill engine room; additions to crane facilities in Nos. 2 and 3 foundries and foundry roll and machine shop; equipment for locomotive repair shop; 1,000 kilowatt motor generator set in power house. Duquesne works—New bins and charging equipment for calcining plant at open-hearth department; improved slag handling method at blast furnace No. 6; bloom charging crane and extending crane runway at 22-inch mill No. 5; extension to inspection building at upper works. Carrie furnaces—Five 40-ton hot metal ladles and cars; six cinder ladles and cars; addition to office building and laboratory; entrance tunnel to works under railroad tracks. Schoen Steel Wheel works—Additional wheel finishing equipment for units Nos. 1 and 2. Upper Union (Pittsburgh) works—Crane runway and electric overhead traveling crane for raw material stock yard; extension to general office building. Isabella furnaces—Concrete walks and railings on trestles and bins at blast furnaces Nos. 1, 2 and 3. New Castle works—Dry gas cleaner for blast furnace No. 1; coke dust conveyors, screens and bins at blast furnaces Nos. 2, 3 and 4. Ohio works—New boiler plant, including new building, four 1,800-horsepower boilers and auxiliary facilities; reinforcing bin system at blast furnaces Nos. 1 to 4; flying shear at 23-inch billet mill. Mingo works—Fireproof storage building. Bellaire works—Emergency Hospital, employment and general office building. For use in intermill service and for moving raw material there were purchased during the year 500 steel hopper cars. There were acquired for river transportation one towing steamer, 25 steel barges and one service boat. Land purchased—21.99 acres at New Castle.

Work in progress: Homestead works—Tar burning system for furnaces at open-hearth plant No. 3; cinder removal equipment for pit furnaces at 40-inch blooming mill. Edgar Thomson works—Greenawalt sintering plant No. 2 at briquetting plant; 8 straightening presses for rail mills Nos. 1 and 2; two drill presses and two cold saws in rail storage of No. 1 mill finishing department; six roll lathes for roll shop. Duquesne works—Reconstruction of blast furnace No. 3 and stock yard. Carrie furnaces—Increasing height of blast furnace No. 5. McCutcheon works—Combined machine shop, storeroom, and oil house. New Castle works—Rearrangement of tracks at blast furnace No. 1 and new track connection to steel plant. Ohio works—Rebuilding 3 open-hearth furnaces. Mingo works—Three new hot blast stoves at blast furnace No. 2; dry gas cleaner for blast furnace No. 3. Bellaire works—New track scale.

Illinois Steel Co., work completed: South works—Additions to blast furnace No. 4; 3 waste heat boilers at No. 3 duplexing open-hearth plant; enlarging sand storage bins and installing monorail trolley handling system at ingot mold and iron foundries.

Work in progress: South works—New electric power plant building and four 3,000-kilowatt gas-engine driven electric units; sanitary facilities at various departments. Joliet works—Rebuilding four batteries of ovens and regenerator walls at by-product coke plant. Milwaukee works—Extending building and crane runway at 9-inch merchant mill No. 2.

Universal Portland Cement Co., work completed: Buffington plants—Strengthening trestle approach to raw-material building at mill No. 4; additional kiln and boiler unit for burner building at mill No. 6; dust-controlling system in coal-grinding building at mill No. 6; new feeder lines and transformer equipment to supply electrical energy to finishing mill, packing rooms, and sack house at mill No. 6. Universal plant—Coal drying and pulverizing plant; dust-controlling system on kiln and dryer stacks and in raw-material building; three boarding houses, eight double dwellings, water supply and sewerage system; plant restaurant.

Work in progress: Buffington plants—Dust-controlling system in raw-material building at mill No. 6; water softening and filtering plant to serve mills Nos. 3, 4, and 6. Universal plant—Increasing raw material grinding capacity; additional clinker storage and handling facilities.

Indiana Steel Co., work completed: Gary works—Additions to blast furnaces Nos. 3, 6, and 10; three coal-unloading machines and enlarging unloading building at by-product coke plant; building over crane runways in billet and blooming mill chipping yards; 200-foot extension to electrical repair shop building and additional equipment; enlarging ammonia sulphate storage building; additional finishing equipment in merchant mills; 40,000,000-gallon centrifugal pump at central pumping station; six Clark dump cars.

Work in progress: Gary works—Construction of new 12-inch and 20-inch strip mill; enlarging coal storage yard; extending gas-pipe system for distributing coke-oven gas; additional tie plate finishing equipment.

Minnesota Steel Co., work completed: Duluth works—additions to 28-inch rail mill; extending ore, coal, and limestone storage yard; two 7,500 kilowatt turbo-generators in power station No. 2; two 400-horsepower boilers, stokers, conveyors, and auxiliary facilities in boiler house No. 2; roll shop and machine tool equipment; automatic rail clamps on coal bridges Nos. 1 and 2.

Work in progress: Duluth works—Construction of new rod and wire mill.

Lorain Steel Co., work completed: Johnstown works—Extending iron and steel foundries buildings; pattern storage building; electric heat treating furnace for bolts; hot pressed nut machine and burring and tapping machine for bolt shop.

Work in progress: Johnstown works—Electric steel foundry with 4-ton electric furnace.

National Tube Co., work completed: National works—Ore thawing house at blast furnaces; pumping equipment and remodeling settling basin at pumping plant; saddle tank locomotive. Continental works—Equipment for making butt weld couplings; rearranging socket shearing and loading equipment. Pennsylvania works—Motor-driven hydraulic pump and accumulator; rebuilding main and branch gas flues for heating and welding furnaces Nos. 1, 2, 4, and 5. Ellwood works—Equipment for forming automobile axles, torque tubes, etc.; 4 motor-driven cutting-off machines.

Work in progress: National works—Rebuilding blast furnace No. 2; dry gas cleaner for stoves at blast furnaces Nos. 3 and 4; remodeling pig casting

machine; additional cutting-off, threading, and testing equipment in lap weld department. Christy Park works—Extension to "Horn" welding department. Pennsylvania works—Coupling finished equipment for taper tapped couplings; new threading machines and additions to finishing facilities at No. 1 lap weld mill.

The National Tube Co., work completed: Lorain works—Additions to blast furnace No. 1; crop-handling equipment for Nos. 2 and 3 blooming mills; stoker equipment for 6 boilers in by-product coke plant boiler house; concrete trestle at Bessemer mixer building; 2 additional lap weld mills to increase production of pipe 6 inches to 16 inches, inclusive; coupling shop finishing equipment; extension to machine shop; enlarging blacksmith shop, 1,000-ton steam hydraulic forging press and 15-ton traveling crane; electric overhead traveling crane for coupling shop. Land Purchased-183 building lots adjacent to pipe mills.

Work in progress: Lorain works—Rebuilding blast furnace No. 4; additional facilities at slag crushing plant; coke oven gas lines to skelp and pipe mills; improvements to rail mill cold finishing department, modernizing coupling finished machinery; tools for No. 1 machine shop.

American Steel & Wire Co., work completed: Newburgh steel works—New water cooling towers at reservoir; power transmission line to open hearth building; 15-ton crane in open hearth stockyard; sanitary buildings and facilities for various departments. Central furnaces—Additions to blast furnace B; extension to slag crushing plant; two 50-ton hot metal cars and ladles. By-product coke works—Ammonia sulphate dryer; sewer and filling across valley at Burke Brook. Cuyahoga works—Facilities for handling and storing hot-rolled flats at strip mills Nos. 1 and 3; patenting furnace and auxiliary equipment for spring wire. American Works—500' extension to condenser intake pipe line; emergency water supply for fire protection; 150-ton track scale; continuous fine wire drawing machine; triple-blow cold heading machine. Consolidated works—Mechanical bundle lifting devices at wire drawing blocks. H. P. works—New boiler plant. Salem works—20 double blow nail machines. Waukegan works—New boiler plant; additional equipment for making springs; two steam-driven low pressure centrifugal pumps. Rockdale works—three American fence machines. Scott Street works—Water filtration plant. De Kalb works—2 National fence machines; equipment for hot galvanizing gate and post fittings. Anderson works—Additions to clean'ng house and equipment to modernize facilities; ash handling system at boiler house; mechanical stripping device for wire drawing blocks. Shoenberger works—Rebuilding No. 1 stove at blast furnace No. 2; rebuilding pig casting machine; automatic sprinkler system in carpenter and pattern shop. Rankin works—Cooperage storage building. Braddock works—4 annealing furnaces; mechanical stripping devices for wire drawing blocks. Williamsburg quarry—4 tenement houses. Neville furnaces—Extension to blast furnace ore yard. Allentown works—Lead annealing outfit in galvanizing department; steam-driven portable road crane. Trenton works—Fireproof oil storage house; vacuum cleaning system in Nos. 1 and 2 wire mills; caterpillar-type locomotive crane. Worcester, North works—Additional electro-galvanizing equipment; 9 6-inch cold-rolling machines; 8 continuous wire drawing machines; 2 continuous rod drawing benches. Worcester, North works—Coal handling plant; reservoir to increase water storage capacity; equipment to increase production of rail bonds and helical springs. Worcester, Central works—Sanitary building. Worcester, Electrical cable works—4 modern rubber mixing rolls. New Haven works—Warehouse building; additions to machines for rope manufacturing. Pacific works—Additional stranding machine and Ideal fence machine. Fairfield works—Equipping annealing furnaces and spelter pan settings for coal burning. Land purchased—7.28 acres for plant extension at Salem works; 1.60 acres at Braddock works; 8.54 acres adjacent to New Haven works. At American, H. P. and De Kalb works buildings were equipped for assembly halls and club house purposes.

Work in progress: Central furnaces—Extending underground flue and installing 2 chimney valves at blast furnace C. Cuyahoga works—New machine and electric repair shop buildings; additional storehouse facilities; extension to power house building; air washing equipment for 3 turbo-generators. American works—Additional pot annealing equipment including 2 annealing furnaces and 10-ton crane. Consolidated works—Additions at central boiler house to improve light and ventilating conditions. H. P. works—Safety guards

and devices on nail machines. Waukegan works—Billet conveyor in rod mill; bull block for drawing coarse size wires. Braddock works—Additional facilities in cleaning house and rearranging equipment to modernize plant. Trenton works—Extension to rope shop building and equipment. Worcester, North works—Enlarging electro-galvanizing building, including additional equipment; 4 continuous cold-rolling machines for flat wire. Worcester cable works—Extension to electrical cable department. There are being constructed at Rankin works 60 double blow nail machines for installation at various works.

American Sheet & Tin Plate Co., work completed: Gary works, tin mill—3 air compressors. Gary works, sheet mill—motor drive for finishing stand of No. 2 plate mill. Vandergrift works—new pickling and galvanizing department buildings and equipment; new mill engines and drives on hot mills Nos. 1 and 2; modern type furnaces, including stoker equipment, for hot mills Nos. 1 to 4 and 13 to 16; replacement of boilers and equipment at No. 1 boiler house; 19 dwelling houses. Shenango works—coal and ash handling equipment for tinning house. National works—air cooling system at hot mills; drinking water system. New Castle works—extension to power house building; additional 300-k. w. generator; individual motor drives for 20 squaring shears; 15-ton electric overhead traveling crane in annealing department. Wood works—conveyor equipment for plates between roller leveller and squaring shear; emergency hospital building; clock house and timekeepers' office. Wellsville works—enlarging boiler house; two 550-h. p. boilers with stokers and ash handling facilities, equipment for handling cut bars. Chester works—rebuilding hot mill furnaces Nos. 1 to 5; stoker equipment for furnaces Nos. 1 to 8; 8 mechanical doublers for hot mills. Dover works—20 ton electric overhead traveling crane. Laughlin works—new hot mill engine and drive; carpenter shop, welfare building; rescue and fire fighting station at coal mine; wash and locker building at coal mine. Aetna Standard works—3 mechanically operated gas producers; wash and locker room at coal mine. Guernsey works—additions to hot mill furnaces and rearranging mill facilities; bar storage building. American works—three 685-h. p. boilers with stokers and auxiliary facilities. Roll and Machine (Canton) works—new 254-h. p. boiler with superheater, soot blower and shaking grates. Land purchased—site for community house at Shenango works.

Work in progress: Gary works, sheet mill—drinking water system for entire plant. Vandergrift works—extension to drinking water system.

Sharon Tin Plate Co., work completed: Farrell works—rebuilding hot mill furnaces Nos. 1 to 5; extending bar storage building; coal and ash handling system for producers in black annealing department; 2 scrap bundling presses; 7 motor-driven squaring shears; 15-ton locomotive crane.

American Bridge Co., work completed: Gary works—tool equipment for plate shop. Ambridge works—pattern storage building; 5 steel underframe flat cars. Pencoyd works—additional electric generating capacity, including 1,500-k. w. turbo-generator; 6-ton electric overhead traveling crane in yard at 28" mill; shaft turning lathe for machine shop. Trenton works—switching locomotive.

Work in progress: Pencoyd works—3 80-ton ladle cranes and new crane runway in open hearth plant.

Union Steel Co., work completed: Donora steel works—1,000 k. w. rotary converter in power house at blast furnaces; rebuilding ore handling crane No. 1; new soaking pit crane; river dock with handling facilities for billets and scrap; sanitary facilities in open hearth department; caterpillar-type steam shovel. Donora wire works—additions to boiler plant including 550-h. p. boiler; continuous cleaning and wire drawing equipment; mechanical stripping device for wire drawing blocks. Farrell works—reconstruction of blast furnace No. 2; electrical handling equipment for cinder and refuse at open hearth department; coal handling equipment at boiler house; 2 nail galvanizing furnaces.

Work in progress: Donora steel works—Improved cinder handling facilities in open hearth department; automatic sprinkler system in carpenter and pattern shops and store room. Donora wire works—Building and equipment to manufacture electric welded concrete reinforcement.

Clairton Steel Co., work completed: Clairton works—Equipping 6 blooming mill boilers to burn coke breeze; 20 steel flat cars for open hearth department.

Clairton Byproduct Coke Co., work completed: Clairton works—2 additional primary coolers; plant for varnish manufacture; additional drying and loading equipment for ammonium sulphate; 2 electric locomotives; 2 cinder cars.

Work in Progress: Extension of by-product coke plant.

Federal Shipbuilding Co., work completed: Kearny yard—10,000-ton capacity floating dry dock and auxiliary facilities; vessel outfitting shop and work barge.

Canadian Steel Corporation, Limited, at Ojibway, Canada, work continued during the year in the construction of 4 blast furnaces, a field fence building, and a general machine shop building.

Tennessee Coal, Iron & Railroad Company, manufacturing properties, work completed: Ensley works—Dry gas cleaner for blast furnace No. 3; rebuilding blast furnace No. 4; 8" air line from blooming mill pump house to foundry; 200-ton track scale; reconstruction of employes' quarters. Bessemer Rolling Mills—New motor drives for 12" and 16" mills. Bessemer Furnaces—Additions to blast furnace No. 4. There were purchased during the year 1 switching locomotive, 140 steel underframe hopper cars, and 2 tank cars. There is being constructed a system of industrial tracks for the conveyance of red ore from the mines to the furnaces.

Work in progress: Ensley works—Additional hot blast stove at blast furnace No. 1; storage facilities for rail and pig iron; 5,000-k. w. frequency changer at No. 1 power house.

Ore, coal, and limestone properties, work completed: Muscoda Mine—Double drum electric hoist; electric transmission line; 10 mechanical ore unloaders. Vanns quarry—additional crushing, screening, and washing equipment. Pratt mines—opening and equipping No. 18 mine. Edgewater mine—extension to electrical repair shop building and to pumping station.

Work in progress: Muscoda mine—electric power transmission line from Fairfield to No. 4 mine. Edgewater mine—100 mine cars. Bayview mine—additional mine and welfare buildings; 125 tenement houses; 100 mine cars. Docena works—pumping station for mine drainage.

Fairfield Steel Co., work completed: Steel works—Fabricating and car-building plant; additions to finishing end at bar, structural and plate mills; tie-plate finishing department; roll-shop equipment at tie-plate plant.

Work in progress: By-product coke plant—Tar-storage tank; drying equipment for ammonium sulphate.

COAL AND COKE PROPERTIES

Total expended during the year $9,074,691.92

For the acquirement of additional acreages of steam coal in Greene County, Pa., and of surface land for new plants and town sites in Washington County, Pa., there were expended, of the above total, $6,059,945.23.

In the Connellsville district there were expended $661,677.13 at Colonial Nos. 1, 3, and 4 works for facilities to increase the output of coal and for underground transportation through Alice mine to Colonial Dock. The extension of tracks at Edenborn works to increase the coal-carrying capacity between Lambert and Gates works was completed. At Phillips works the electric-haulage system was completed, at Dilworth works a new switchboard and an additional electric-power transmission cable were installed. The rebuilding of the boiler house at Leisenring No. 3 works and a new coal bin at the boiler house at Lambert works were completed. Additional air compressor capacity for the Bethelboro pumping station at Youngstown works were installed. The brick-supporting arch in the Kyle section of Yorkrun works and the additions at Leisenring No. 1 works to protect the shaft bottom, provide air and water courses and for additional pumping facilities were completed. An electric fan and substation at Leckrone works and a pumping station for mine water at Wynn works are being installed. The steam power plants at Continental Nos. 1 and 2 works and Leisenring No. 2 works are being equipped with new boilers. At Maxwell works an additional air and escapement shaft was constructed. Concreting the hoisting and air shafts at Collier and Leisenring No. 1 works was completed and similar work is under way on the shafts at Phillips and Colonial No. 3 works. For additional housing facilities at Palmer, Maxwell, Gates, Edenborn, Lambert, and Leisenring No. 2 works there were expended $100,132.07. Improvements of the drainage and sanitary conditions at Palmer works and the installation of a filtration plant for domestic water supply at Maxwell works were completed. There were expended during the year $153,754.47 for additional equipment at various works in the Connellsville district and in Mercer County, Pa., including 4 electric locomotives, 515 steel body mine cars, and 12 coal-mining machines.

In the Pocohontas Field, West Virginia, there were expended $148,780.73 for additional housing facilities at various works, filtration plant, and domestic water storage tank for Nos. 3 and 4 works and steel tipple and mine equipment at No. 8 works. Additions to increase the plant capacity were made at works No. 40 near Philippi.

In the Sygan, Pa., field at No. 2 works a new shaft and 3 single and 5 double tenements were completed and the water system for fire protection is being extended and a new pumping station installed. In Washington County, Pa., two coal-mining plants are being constructed.

In the Illinois coil field further expenditures were made in completing the shaft-bottom landings, development of the mine, and for new mine buildings and machinery at Bunsenville works. An electrical power-transmission line to the Benton power station was completed and coal-screening equipment is being installed at the tipple at Middle Fork works. An extension to the miners' bath house at Vermilion works was completed. A pumping plant is being installed for the Westville water system at Kelly No. 4 works.

IRON ORE PROPERTIES

Total expended during the year..... $2,929,312.78

The foregoing aggregate expenditure includes a net outlay of $1,152,458 for acquiring additional surface rights and improvements thereon in the city of Hibbing, Minn., removing buildings therefrom and relocating same, and the development of a new site for a portion of that city, in order to permit the economical mining of iron ore underlying the surface property acquired. The balance of the expenditures cover a wide range of mine improvements and additional equipment at the several iron ore mines in the Lake Superior District.

TRANSPORTATION COMPANIES

Total expended during the year..... $12,154,444.33

The above total includes additional equipment acquired by the railroad companies during the year, viz., to locomotives, 4 second-hand passenger coaches, 4 locomotive cranes, and 4 bunk cars, costing $546,245.88. There were delivered during the year 11 ocean-going steamers for the United States Steel Products Co. These steamers were constructed at the shipbuilding plants of the subsidiary companies at Kearny, N. J., and Mobile, Ala.

By Union Railroad Co.: For account rebuilding 1,991 steel gondola cars, $399,202.30.

By Bessemer & Lake Erie Railroad Co.: For additional air compressor, air line and electric power-transmission line, ash handling plant and soot blowers in power house and carbo-oxygen cutting equipment and in industrial truck at shops, Greenville, Pa., $26,035.64; changing tunnel at Culmerville, Pa., to open cut, $95,700.40; yard tracks, sidings, and grading tracks at various locations, $112,506.53; for additions to bridge No. 1 and for viaduct on Main Street at Butler, Pa., $128,316.25; increased cost of heavier rails laid in renewals and for steel cross ties, $265,137.26.

By Newburgh & South Shore Railway Co.: At Marcellina yard for completing new car repair shop, $62,370.99; interchange tracks and track extensions at Seneca Yard and team track at Independence Road, Cleveland, Ohio, $58,519.69.

By Elgin, Joliet & Eastern Railway Co.: For additional machinery for locomotive shop at East Joliet, Ill., $23,510.26; eliminating grade crossing with Chicago, Burlington & Quincy Railroad at Aurora, Ill., $43,647.30; increased cost of heavier rail and track material laid in renewals and additional slag ballast on main line, $33,395.98.

By Chicago, Lake Shore & Eastern Railway Co.: Gary, Ind., for extension to power-plant facilities, including stokers and ash handling system, and for additional machinery in the locomotive shop, $84,236.83; for various tracks within the steel plant and in Kirk Yard, $22,711.76; increased cost of improved appliances and parts for locomotives and cars, $29,534.24.

By Duluth & Iron Range Railroad Co.: For rebuilding depot at Allen Junction, Minn., water tank and pumping plant at Tower Junction, Minn., and account ore scale at Biwabik, Minn., $24,560.20; telephone exchange at Babbitt, Minn., relocating exchange and extending telephone lines at Two

Harbors, Minn., and telephone additions at various locations, $30,037.72; increased cost of steel wheels replacing cast-iron wheels on freight cars, $14,564.40.

By Duluth, Missabe & Northern Railway Co.: For land at Proctor, Minn., and station grounds and right of way at Chisholm, Minn., $73,452.77; 30 dwellings at Proctor, Minn., for employees, $171,890.15; machine and tool equipment for shops at Proctor, Minn., $12,123.13; new section house at Kelsey, Minn., additions to section house at Silica, Minn., and water tank at Sharon, Minn., $19,224.01; track connections with Great Northern Railway on the Alborn Branch and at Virginia, Minn., and Chisholm, Minn., $13,676.78.

By Spirit Lake Transfer Railway Co.: At Morgan Park, Minn., for 27 lots and 234.12 acres land, $241,290.99; filling timber trestle approach to St. Louis River Bridge at Steelton, Minn., $23,6[illegible]4.11.

By Pittsburgh & Conneaut Dock Co.: For enlarging ore storage capacity on dock No. 4 at Conneaut Harbor, Ohio, $23,574.01.

Total expended during the year $5,986,374.87

For completing 40-inch gas-pipe line from by-product coke plant at Clairton to Homestead, Pa., 20-inch gas-pipe line from Port Perry to Bessemer, Pa., and 8.5 miles at 8-inch gas-pipe line for natural gas from wells in Gilmer County, W. Va., to main pipe line, $113,525.78; gas booster stations at Toll Gate and Smithsburg, W. Va., and Masontown, Pa. $12,771.55. In the Connellsville district, Pa., for new store buildings at Ronco and Gates works, $62,239.32; filtration plants for water-supply systems in Westmoreland and Fayette Counties, $153,689.32. At Gary, Ind., for extensions to the water, gas, and electric-light systems, $129,891.22. At Wilson, Pa., for town site and employees' dwelling, $129,855.79; at McDonald, Ohio, for town site, employees' dwellings, and community house, $762,019.01; houses for employees at Homestead and Ellwood City, Pa., and remodeling 100 houses at Homestead, Pa., $181,857.51; at Morgan Park, Minn., for 180 dwellings, community church building and street improvements, $556,065.83; at Fairfield and Westfield, Ala., for employees' dwellings and welfare buildings, $118,664.05; additional land purchased at Neville Island and McKeesport, Pa., $575,585.09. Purchase of outstanding stock interests in various limestone companies owning properties in Pennsylvania, Maryland, and West Virginia; for construction at these properties of employees' dwelling and boarding houses, $81,714.92; new crusher, 200-horsepower boiler and track additions, $28,080.05; quarry movable equipment, $89,024.21; rails and fastenings for track extensions, $13,610.04.

EXTRACT FROM 1922 REPORT

MANUFACTURING PROPERTIES

Total expended during the year $16,076,739

Carnegie Steel Co., work completed: Homestead works—Forced air installation on one furnace in open hearth plant No. 3; tar-burning system for furnaces at open hearth plant No. 3; equipping one boiler at 30-inch mill boiler house to burn pulverized coal; lifting tables for 176-inch plate mill; 20-ton shear crane and 15-ton electric overhead traveling crane at 30-inch slabbing mill. Edgar Thomson works—Greenawalt sintering plant No. 2 at briquetting plant; 20-inch gas line in open hearth plant; 8 straightening presses for rail mills Nos. 1 and 2; 2 drill presses and 2 cold saws in rail storage of No. 1 mill finishing department; 6 roll lathes for roll shop. Duquesne Works—Reconstruction of blast furnace No. 3 and stock yard; strengthening track stringers over ore bins at blast furnaces Nos. 5 and 6; retaining walls along coke track at blast furnace No. 6; standard gauge track scale for blast furnace department; horizontal boring mill, 4 lathes and milling machine for shops. Carrie furnaces—three 850-horsepower boilers and auxiliary equipment at blast furnaces Nos. 1, 2, and 5; three 1,500-kilowatt step-up transformers and enlarging transformer station building. McCutcheon works—Combined machine shop, storeroom, and oil house. New Castle works—Rearrangement of tracks at blast furnace No. 1 and new track connection to steel plant; 75-ton switching locomotive. Ohio works—Rebuilding 6 open hearth furnaces; riggers' building; tool and storage house for blast furnaces Nos. 1 and 2. Mingo works—3 new hot blast stoves at blast furnace No. 2; automatic valves for No. 6 blowing engine. Bellaire works—New track scale. For river transportation there was acquired

one steamer. Land purchased—180.639 acres for disposal of refuse at Gascole, Pa.; 1.55 acres on Allegheny River in Harmar Township, Pa.

Work in progress: Homestead works—New charging floors, 2 charging machines and strengthening building at open hearth plant No. 1. Edgar Thomson works—Extending building conveyer handling system and modernizing Greenawalt sintering plant No. 2 at briquetting plant; air-brake equipment for 46 hot metal ladle cars. Duquesne works—Three 125-ton ladle cranes, 16 ladles and strengthening crane runway in pouring building at open hearth plant No. 1; reconstruction two 75-ton furnaces at open hearth plant No. 2. Schoen Steel Wheel works—Slug and scale disposal plants at mills Nos. 1 and 2. Isabella furnaces—10-ton ore bridge and ore stocking facilities. New Castle works—1,300-ton hot metal mixer and extension to mixer building. Ohio works—75 charging box cars for open hearth plant. A dock for river shipments is being constructed on the Monongahela River between Homestead and Duquesne works.

Illinois Steel Co., work completed: South works—New electric power plant building and four 3,000-kilowatt gas engine driven electric units; additions to blast furnaces No. 7 and "E," Joliet works—Rebuilding 4 batteris of ovens and regenerator walls at by-product coke plant; additions to blast furnace No. 3; 2 additional units for oil tempered track bolts. Milwaukee works—Extending building and crane runway at 9-inch merchant mill No. 2; pig-breaking machine.

Work in progress: South works—300-ton hot metal iron mixer at open hearth No. 2; electric motor drive for 90-inch and 132-inch plate mills.

Universal Portland Cement Co., work completed: Buffington plants—Installing Ball mills in raw material building at mill No. 6; additional machine tools for shop at mill No. 6; water softening and filtering plant to serve mills Nos. 3, 4 and 6. Universal plant—Increasing raw material grinding capacity; additional clinker storage and handling facilities. Duluth Plant-Switching Locomotive.

Work in progress: Buffington plants—Dust collectors for kilns and raw material mill, coal grinding equipment and safety appliances at mill No. 3; additional coal dryer at mill No. 6; improvements at water intake serving mills Nos. 3, 4, and 6; subway under railroad tracks at plant entrance. Universal plant—Increasing raw material grinding and conveying facilities; improving pitch of 16 kilns. Duluth plant—Additional kiln and auxiliary facilities; dust collecting equipment in raw material building.

Indiana Steel Co., work completed: Gary works—12-inch and 20-inch strip mills; enlarging coal storage yard; improving blast furnaces Nos. 2 and 9; extending gas pipe system for distributing coke oven gas; additional tie plate finishing equipment; roll grinding machine.

Work in progress: 1,714 feet of concrete dock wall at vessel slip.

Minnesota Steel Co., work completed: Duluth works—Rod and wire mill.

The Lorain Steel Co., work completed: Johnstown works—Electric steel foundry with 4-ton electric furnace; sand cutting machine and 2 moulding machines for steel foundry; 2 locomotive cranes.

Work in progress: Johnstown works—Shop for construction of steel cars for use of mines and industries; transformer equipment to permit use of purchased electric current.

National Tube Co., work completed: National works—Rebuilding blast furnace No. 2; 6 automatic bar machines for coupling blanks; 2 turret lathes and tables for finishing coupling and threading drill pipe. Christy Park works—Tube slicing lathe. Pennsylvania works—New threading machines and additional finishing equipment in No. 1 lap weld mill; motor-driven air compressor with auxiliary equipment; 100-ton standard gauge railroad track scale. Riverside works—Gas washer for stoves at blast furnace No. 3.

Work in progress: Gary works—New Pipe mills, consisting of 5 butt weld mills, 4 lap weld mills, and 1 seamless mill with auxiliary departments and shops; 16 dwelling houses. National works—5 hot blast stoves for blast furnaces Nos. 3 and 4; continuous upsetting and threading unit for lap weld mill; tapping and recessing equipment for coupling department. Christy Park works—Extension to "Horn" welding department to increase capacity. Pennsylvania works—Coupling finishing equipment for manufacture of tapped couplings; 8-spindle vertical tapping machine for 6-inch to 12-inch couplings. Land purchased—21 acres for disposal of waste material at Elwood works; lot adjoining Versailles galvanizing plant at National works.

The National Tube Co., work completed: Lorain works—Rebuilding blast furnace No. 4; slag crushing plant; additional blast furnace gas engine, with 3,500 kilowatt alternator; coke oven gas line extension to various mills; improvements to rail mill cold finishing department; modernizing coupling finishing machinery.

Work in progress: New boiler-house building; six 1,500-horsepower gas-fired boilers and auxiliary facilities; 1,000-kilowat motor generator set at blast furnace blowing engine house; equipment for electro-galvanizing couplings; tools for No. 1 machine shop.

American Steel & Wire Co.—Work completed: Newburgh steel works—Strengthening charging floor in open-hearth plant; 33 charging cars and 107 charging boxes for open-hearth plant. Newburgh wire works—Coke oven gas purifying equipment in pot annealing department. Central furnaces and docks—Concrete dock; settling and filter tanks at water purifying plant; 800-ton hydraulic wheel press. By-product coke works—Car haulage winches at coke screening and coal stations. Cuyahoga works—New machine and electric repair shop building; additional storehouse facilities; extension to power house building; air washing equipment for 3 turbo-generators; converting 3-tube patenting furnaces into open-flame furnaces; double tinning outfit for cold-rolled flats; coiling devices for 3 cold-rolling machines. American works—Additional pot-annealing equipment including 2 annealing furnaces and 10-ton crane; multiple drill press and grinder in die-reaming department. Consolidated works—Additions at central boiler house to improve light and ventilation; lengthening stokers on 4 boilers. H. P. works—10 double-blow nail machines; safety guards and devices on nail machines; open-side planer for machine shop. Salem works—Equipping wire mill No. 1 nail mill, and tumber room with motor drive; machine tools for shop. Waukegan works—Bull block for drawing coarse-size wires; continuous copper-wire drawing machine; heat-treating furnace and auxiliary equipment; 6-ton billet-handling crane. Rockdale works—New pulverizer in sulphate of iron department. Scott Street works—10 double-blow nail machines. DeKalb works—Equipment for manufacturing rolled Y section-line posts, with anchor plates; straightening and cutting machine for concrete reinforcement. Anderson works—Rebuilding north bench in wire mill and installing block-stripping device; high-pressure pump in rod mill. Shoenberger works—Rebuilding blast furnace No. 1; cupolas; 2 lathes for machine shop. Rankin works—New wire mill floor; 10 double-blow nail machines. Braddock works—Additional facilities in cleaning house and rearranging equipment to modernize plant; exhaust system in cleaning house, agitators and feeders for rod mill gas producers. Trenton works—Extension to rope shop building and equipment. Worcester, North works—Enlarging electro-galvanising building; 2 additional electro-galvanizing units for flat wire; 4 continuous cold-rolling machines for flat wire; 1,000-kilowat transformers and 12 A. C. motors, replacing motor generator set. Worcester, South works—Standard gauge track connection to lower yard and additional storage tracks; billet heating furnace; tempering furnace in spring department. Worcester, electric cable works—Extension to building, additional equipment, and rearranging old facilities to modernize plant and increase capacity. New Haven works—Additional rope warehouse facilities. Fairfield works—Equipping annealing furnace and spelter pan settings to burn coal instead of gas. Land purchased—16 lots in East Denver, Colo., for warehouse site.

Work in progress: Newburgh steel works—Scrap handling equipment at converters in Bessemer department. Central furnaces and docks—Rebuilding ore unloading runway at docks; safety appliances for cinder and hot-metal cars. By-product coke works—Water-cooling tower. Cuyahoga works—Enlarging annealing building; additional annealing equipment for flat-rolled material; extending water service lines for fire protection; variable speed motors for 5 cold-rolling machines. Consolidated works—New pot-annealing building, 2 4-pot annealing furnaces and auxiliary facilities. H. P. works—150-ton railroad track scale. Waukegan works—Billet conveyor in rod mill. Rockdale works—Rod handling system through wire mill dry house. Anderson works—New boiler house, 4 800-horsepower boilers and coal and ash handling equipment. Rankin works—Extending wire mill building and enlarging baker. Allentown works—4 additional 600-horsepower boilers with coal and ash handling system. Worcester, North works—Additional continuous wire drawing equipment. Worcester, South works—New crane runway in scrap yard; equipment for manufacture of signal bonds. Worcester electric cable works—Improvements in rubber-mixing department.

Donora Zinc Co., work completed: Donora works—2 brick dust catchers in roasting furnace department.

Edgar Zinc Co., work completed: Cherryvale works—Extending pulverized coal feeding and control system.

American Sheet & Tin Plate Co., work completed: Gary works, tin mill—4 cooling conveyors for hot mill; 8 special storage battery tractors. Gary works, sheet mill—drinking-water system for entire plant; oil-burning equipment for 1 plate mill and 2 jobbing mills; lever bar shear and tables in jobbing mill bar storage building. Vandergrift works—Extension to drinking-water system; pyrometer system, instrument building and storerooms for annealing department; additional 48 inches flux finish galvanizing pot with cooling conveyor and washing and drying equipment; rebuilding 2 locomotives. Shenango works—New stand pipe; 8 second-hand steel gondola cars. New Castle works—Forced draft equipment for strokers on 5 boilers; enlargement of cooling system for men at hot mills. Wood works—40-ton overhead traveling crane with 10-ton auxiliary in annealing and cold rolling department. Scottdale works—Fume exhaust system for 3 galvanizing pots. Pennsylvania works—Subway entrance to plant under railroad tracks. Wellsville works—Pickler complete with equipment for pickling and handling breakdown sheets. Dover works—Coal and ash handling system for boiler house; equipping galvanizing plant to make flux finished sheets. New Philadelphia works—Pickler complete with equipment for pickling and handling breakdown sheets. American works—New uniflow engine to drive hot mills, storage cellar for palm oil; 2 concrete neutralizing tanks; motor-driven engine lathe and slotter. Land purchased—2.8 acres adjoining plant at Guernsey works.

Work in progress: New Castle works—Extension to annealing building and relocating white pickler. Sabraton works—Foundation bedplate, mechanical doublers, and underfeed stokers for mills Nos. 1 to 5. Improvements are being made in the coke tinning equipment at Gary, Shenango, National, New Castle, Laughlin, and American works.

Sharon Tin Plate Co., work completed: Farrel works—Mechanical doubler with shear; scrap-handling equipment at bundling press.

Work in progress: Mechanical stokers and coal and ash handling equipment for 10 sheet and pair furnaces; improvements to coke tinning equipment.

American Bridge Co. work completed: Ambridge works—Dock and crane at river for unloading barges; 80-ton locomotive crane, sectional flanging press. Shiffler works—Additional fabricating unit with punching and galvanizing facilities to increase tower plant capacity. Pencoyd works—New cranes and crane runway over charging floor and pouring side in open hearth department; rebuilding open hearth furnace No. 2; scrap shear.

Work in progress: Gary works—Lean-to addition to tank shop and relocating equipment.

Union Steel Co., work completed: Donora steel works—Improved cinder handling facilities in open hearth plant; equipping ore handling cranes with safety clamping devices. Donora wire works—Building and equipment to manufacture electric welded concrete reinforcement; floor in nail warehouse; 20 double blow nail machines. Farrell works—2 additional passes for No. 1 rod mill; lead annealing furnace on No. 1 galvanizing outfit; 10 double blow nail machines.

Work in progress: Donora wire works—3 electric welded reinforcement machines; additional warehouse facilities; new roof over cleaning house. Farrell works—Improving stock house facilities in open hearth plant.

Clairton Byproduct Coke Co., work completed: Clairton works—Brick and cement lining for coke breeze bins; water sprays for cooling valves on ascension pipes from ovens to gas mains.

Work in progress: Clairton works—366 additional by-product coke ovens, with facilities for tar and ammonium sulphate recovery; benzol plant; gas booster station.

Canadian Steel Corporation (Ltd.)—At Ojibway, Ontario, a field fence building and a general machine shop building were completed. The furnace and stove shells and stack for 2 blast furnaces were also completed.

Tennessee Coal, Iron & Railroad Co., manufacturing properties, work completed: Ensley works—Rebuilding blast furnace No. 1; new hot blast stove at blast furnace No. 1; storage facilities for rails and pig iron; rebuilding shear

approach and tilting tables at blooming mill: 20-inch water line from village creek. Bessemer furnaces—Improvements to boiler plant.

Work in progress: Ensley works—Six 834-horsepower boilers for No. 1 steam power plant; pulverizing coal plant with handling and storage facilities; motor drive for 28-inch mill. Bessemer furnaces—Water line from Raimund and Muscoda mines to blast furnaces Nos. 1 and 2. Central water works—Water recovery and cooling system.

Fairfield Steel Co., work completed: Steel works—Extension to shops office building; ditch to divert waste water; bulldozer for forge shop. Byproduct Coke Plant—Equipment for manufacture of concentrated ammonia liquor; tar storage tank.

Work in progress: Steel works—11-inch merchant mill; wood car and repair shop; steel foundry lumber storage yard and planing mill. By-product coke plant—Drying equipment for ammonium sulphate.

COAL AND COKE PROPERTIES

Total expended during the year..... $5,987,117

Of the above total expenditure, $1,762,509.99 was for the acquirement of additional acreage of coking and gas coal in Greene County, Pa., and in the Illinois and Indiana coal districts. For surface land in Greene County, Pa., for a shaft and townsite at Dilworth works and for a railroad right of way there were expended $171,367.31.

In the Connellsville district there were expended $469,313.11 for 133 double tenement houses which are being constructed at Ralph, Palmer, Lambert and Edenborn works. Boarding houses were completed at Gates, Phillips, Youngstown, Hecla No. 1, and Marguerite works, and bathhouses are being built at Ralph, Gates and Collier works. For facilities to increase the output of coal at Colonial Nos. 1, 3 and 4 works and for underground transportation through Alice mine to Colonial Dock there were expended $1,348,828.60. The installation of water sprinkling systems to settle dust and for fire protection was completed at Dilworth, Palmer, Ronco, Filbert and Bridgeport works and is in progress at Maxwell, Gates, Colonial Nos. 1, 3 and 4 works. Slate-handling equipment was installed at Palmer, Phillips, and Filbert works. An electric fan and sub-station at Leckrone works and additional electric generating equipment in the power plant at Palmer works were completed. The mines at Footedale and Marguerite works are being equipped to operate electrically and electric feeder lines were extended at Dilworth, Edenborn and Bridgeport works. A pumping station for raine water at Wynn works and enlarged pumping facilities at Yorkrun works were completed. A pumping station is being constructed at Filbert works and additional water pumping equipment is being installed at United and Hostetter works. New boilers were installed in the steam power plants at Continental Nos. 1 and 2, Leith, South West No. 1, Standard, Mutual, Dorothy and Hostetter works and similar installation at Lemont works is in progress. Harbor improvements were completed at Palmer, Gates and Ronco works. A ventilating shaft is being constructed at Dilworth works. The concrete lining of the air shaft at Phillips works was completed. There were expended during the year $179,710.30 for additional equipment at various works in the Connellsville district, viz: 5 electric locomotives, 490 steel body mine cars, and 24 air compressors.

In the West Virginia and Kentucky fields: For highway bridges and roads, tenement houses, and general construction at works Nos. 30 and 31 there were expended $193,931.30. New pit mouths and electrical facilities, with power transmission line, are being installed at works Nos. 2, 6 and 9, and at works No. 40 the plant is being completely equipped to operate by electricity. Additions are being made to the main power plant at works No. 3, including extensions to the power and boiler plant buildings, 3,000-kilowatt turbo-generator, condenser, cooling tower, two 800-horsepower boilers and coal pulverizing equipment. For use at various mines there were purchased twenty 18-ton electric locomotives.

In Washington County, Pa., there was expended $891,089.18 account construction of two new coal-mining plants.

In the Illinois coal field additional expenditures were made at Bunsenville works toward completing the development of this mine. The installation of coal-screening equipment at Middle Forks works was completed. To permit

operation of the plant with purchased electric current, facilities are being installed at Vermillion works.

In the Tennessee and Alabama district, for completing 125 tenements and for plant and welfare buildings being constructed at Bayview mines there was expended $21,904.56. A pumping station for mine drainage was completed at Docena mines and pumping equipment to supply cooling water to benzol plant at Fairfield, Ala., is being installed at Wylam mines. There were purchased six 8-ton Jeffrey locomotives and 100 mine cars.

IRON ORE PROPERTIES

Total expended during the year..... $234,528

The foregoing aggregate expenditure includes the purchase of water-power land along the Menominee River and site for crushing and screening plant in St. Louis County, Minn., for which there were expended $59,000. In addition, the plant expenditures included the cost of sundry mine improvements and equipment and the preliminary expenses for equipping a shaft at Geneva mine; 300-ton steam shovel and 35 houses, with water and sewer systems, at Fraser mine; a crushing and screening plant, including standard gauge tracks, in the Virginia district.

In the Red Mountain district, Ala., an electric power transmission line from Fairfield, Ala., to No. 4 Muscoda mine and 75 water hammer type air drills for various mines were completed. Sixty mechanical ore unloaders with auxiliary facilities are being installed in this district.

TRANSPORTATION COMPANIES

Total expended during the year..... $3,761,225

The total expenditures as above include the cost of the ocean-going steamer *Steel Traveler*, put in service during the year, and payments account construction of the steamers *Hatfield* and *Lindabury*, being built for service on the Great Lakes.

By Union Railroad Co.: For additions to river retaining wall at Homestead, Pa., and account coaling and sanding station at Bessemer, Pa., $34,911.17; 9 low-side steel gondola cars, $15,166.50.

By Bessemer & Lake Erie Railroad Co.: For changing tunnel to open cut at Culmerville, Pa., and extending concrete arch at Millers Road, north of Culmerville, Pa., $164,110.45; widening embankment at Allegheny River bridge approach, filling to reduce grades, and improving track alignment at Hull Creek and south of Rural Ridge, Pa., using refuse mill material, $111,427.65; increased cost of heavier rails laid in renewals and for steel crossties, $154,778.53.

By Elgin, Joliet & Eastern Railway Co.: At Matteson, Ill., for constructing separate grades at crossing of Illinois Central Railroad tracks and at Griffith, Ind., for receiving track, $111,713.57; at various points for relaying track with heavier rails, filling low spots, and widening embankments, $63,259.54.

By Chicago, Lake Shore & Eastern Railway Co.: For various tracks within the steel plants at South Chicago, Ill., and Gary, Ind., $53,069.55.

By Duluth & Iron Range Railroad Co.: At Two Harbors, Minn., for fire-protection system for docks and buildings, protective lighting and camp facilities, new track scale and highway under crossing at Second Avenue, $74,357.92; at Biwabik, Minn., for ore scale and at Eveleth, Minn., for passenger and freight depot, $30,495.16; at Ely, Minn., for relocating tracks at A shaft of Pioneer mine and for shaft and stock-pile tracks at Section 30 mine, $35,992.52; additional telephone and telegraph lines, $10,826.33; increased weight of rails and fastenings laid in renewals, $25,888.45.

By Duluth, Missabe & Northern Railway Co.: For boarding camps, water-line extension and building for acetylene generating plant at locomotive repair shop at Proctor, Minn., $48,023.22; 400-ton coal dock at Hibbing, Minn., potato warehouse at Meadowlands, Minn., and fencing right-of-way between Sherwood, Minn., and Wolf, Minn., on Superior Branch, $31,275.74; new ore yard to serve Glen, Wellington, and Monroe-Tener mines and account tracks for Minnewas mine and Missabe Mountain line, $35,278.20; track connection with Great Northern Railway on the Alborn Branch, rearranging track at Eveleth, Minn., and side track at Meadowlands, Minn., $43,297.40; increased weight of rails and fastenings laid in renewals, $58,098.72; overhead highway

bridges at miles 5 and 6 and steel girder bridge on Woodbridge Branch, $95,161.09.

By Tennessee Coal, Iron & Railroad Co.: Further progress was made in the construction of a system of tracks to transport ore from the mines to the blast furnaces. For railroad service there were purchased four locomotives and three hundred 70-ton steel ore cars for which there was expended $901,444.83.

By Pittsburgh Steamship Co.: For new pilot and deck houses, boilers, purifiers, and improvement of cargo holds of various steamers and barges, $034,376.68.

MISCELLANEOUS PROPERTIES

Total expended during the year..... $784,698

For by-product coke gas line from merchant mills to open-hearth plants at Duquesne, Pa., and account relocating 10-inch gas pipe line, transferred from Greene County, Pa., to Ritchie County, W. Va., $41,051.92; completing filtration plant and additional equipment for pumping station in Fayette County, Pa., $63,844.44; extension of water, gas, and electric systems at Gary, Ind., $82,989.10; at Lynch, Ky., for store buildings, $30,429.92; at McDonald, Ohio, water supply system for village, additional houses and community buildings, $130,634.03; at Morgan Park, Minn., account 180 dwellings and completing community church building, $68,936.41; at Westfield, Ala., for employees' houses $59,656.90. Additions at the limestone properties in Pennsylvania include a machine shop building with tool equipment at Hillsville plant, in Lawrence County, and 12 dwellings at Annandale plant, in Butler County. For these additions there was expended $48,674.44.

EXTRACT FROM 1923 REPORT

MANUFACTURING PROPERTIES

Total expended during the year..... $35,416,609

Carnegie Steel Co., work completed: Homestead works—New charging floors, 2 charging machines, and strengthening building at open-hearth plants No. 1; 4 charging machines for open-hearth plant No. 2; improved facilities for handling materials at calcining plant of open-hearth plants Nos. 1 and 2; heavier girders and floor plates in charging track at open-hearth plant No. 4; two 12-ton charging cranes for heating furnaces at 140-inch plate mill; motor-driven tilting table for 140-inch plate mill; reconstructing portion of electric power transmission line; 20,000,000-gallon centrifugal pump with motor drive in main pump house; 3 narrow-gauge locomotives. Edgar Thomson works—Casting storage building at mill department; oil quenching tank and equipment in splice bar shop; 25-ton locomotive crane. Duquesne works—Reconstructing two 75-ton furnaces at open-hearth plant No. 2; improved manipulator for 40-inch blooming mill; coal, sand, and water station for locomotives; steam locomotive crane and grab bucket. Schoen Steel Wheel works—Slag and scale disposal plants at mills Nos. 1 and 2; 2 vertical car wheel turning and facing lathes for mill No. 1; wheel manipulator for mill No. 1. Lucy furnaces—Improved facilities for charging operations at 2 blast furnaces. New Castle works—1,800-ton hot-metal mixer and extension to mixer building; improved facilities for charging operations at blast furnaces Nos. 1 and 2; 2 turbine-driven centrifugal pumps to supply high pressure water to bar mill sprays. Ohio works—Scale pit and 4 manholes on sewers serving 43-inch blooming mill and continuous mill; new 44-inch cylinders and auxiliary equipment for gas blowing engine; 20-ton locomotive crane and grab bucket at slag crushing plant. Upper and Lower Union, Youngstown works—Two 20-ton locomotive cranes. Mingo works—10-ton cupola crane at Bessemer department; new back table at 32-inch blooming mill; 2 narrow-gauge locomotives. Bellaire works—Improved facilities for charging operations at 2 blast furnaces; 25-ton locomotive crane and grab bucket. For river transportation, 21 steel barges were purchased.

Work in progress: Homestead works—Two 125-ton electric overhead traveling cranes and rearranging equipment in north end of building at open-hearth plant No. 2; eight 894-horsepower boilers and auxiliary equipment at 140-inch plate mill; steam line from 140-inch plate mill boiler house to 48-inch boiler house. Edgar Thomson works—2 additional furnaces at open-hearth plant No.

1; equipping finishing end of No. 1 rail mill for rolling and handling sheet bars. Duquesne works—Reconstruction blast furnace No. 1 and stock yard; extending clean gas main to stoves of blast furnaces Nos. 1 and 2; three 125-ton ladle cranes, 16 steel ladles, and strengthening crane runway in open-hearth plant No. 1. Carrie furnaces—Additional pig casting machine; water treating equipment for purifying plant. Lucy furnaces—One pair modern blowing engines for blast furnaces. Isabella furnaces—10-ton ore bridge and ore stocking facilities. New Castle works—New boiler house, 7,700-horsepower boilers and coal storing and handling facilities. Ohio works—3,000 kilowatt electric generator and gas engine. Mingo works—Gas washer for stoves at blast furnace No. 2; boiler house, 4,000-horsepower boilers and feed water purifying plant. Bellaire works—River dock for handling pig iron and scrap. Further progress was made in the construction on the Monongahela River, between Homestead and Duquesne works of a dock for river shipment.

Illinois Steel Co., work completed: South works—300-ton hot metal mixer at open hearth plant No. 2; electric drive for 90-inch and 132-inch plate mills; improvements to finishing end of 90-inch and 132-inch plate mills. Joliet works—Sanitary facilities for blast furnace department; planer and slotter for central machine shop.

Work in progress: South works—4 new air cylinders on 2 blowing engines at blast furnaces Nos. 5 to 8; raising roof of north end of building, modernizing crane facilities, and improvements to main engine at slabbing mill; slag breaking equipment. Joliet works—Remodeling boiler house and modernizing boiler equipment at rod mills; restaurant building at coke plant.

Universal Portland Cement Co., work completed: Buffington plants—Improving pitch of 10 kilns at mill No. 4; pneumatic gypsum handling system at mill No. 6; additional coal dryer at mill No. 6; improvements at water intake serving mills Nos. 3, 4, and 6; enlarging sack storage building; subway under railroad tracks at plant entrance; 8 lodging houses, office and recreation building and boiler house; 800 steel underframe box cars. Universal plant—Increasing raw material grinding and conveying facilities; improving pitch of 16 kilns; twenty 4-room houses; bridge over roadway.

Work in progress: Buffington plants—Dust collectors for kilns and raw material mill, coal grinding equipment and safety appliances at mill No. 3; slag dryer in raw material mill at mill No. 4; additional kiln, boiler and dust treater unit in burner building at mill No. 6; new power distributing system for mills Nos. 3, 4 and 6; rebuilding South Chicago electric transmission line. Universal plant—8 Hercules mills to modernize grinding unit in finishing mill. Duluth plant—additional kiln, with auxiliary grinding and finishing mill facilities; dryer and raw material mill dust collecting system; extension to sack storage building; sack cleaning equipment.

Indiana Steel Co., work completed: Gary works—Improving handling facilities at finishing shears of 160-inch plate mill; stack with automatic control for surplus gas at blast furnaces; additional machinery and tools for shops.

Work in progress: Gary works—Additional wheel finishing equipment; stockers for burning coke breeze under 12 boilers at coke plant; additions to coal mixer at coke plant including enlarging building; extending dock wall.

Minnesota Steel Co., work completed: Duluth works—2 additional gas washers and enlarging washer building at blast furnaces; 42-inch gas main from blast furnaces to No. 2 boiler house; extending shipping dock at rod mill; improvements in forge shop; 12 ingot cars; 20 steel gondola cars.

Work in progress: Duluth works—Remodeling blast furnace No. 1.

The Lorain Steel Co., work completed: Johnstown works—Shop for construction of steel cars for use of mines and industries; flask yard, including 20-ton electric overhead traveling crane.

Work in progress: Johnstown works—2-ton Heroult electric furnace in open-hearth building.

National Tube Co., work completed: National works—Wet gas cleaning plant for stoves at blast furnaces Nos. 3 and 4; equipment for upsetting and finishing 6-inch drill pipe; continuous upsetting and threading equipment for lap weld mill; tapping and recessing equipment for coupling department; 2 automatic coupling boring, recessing and facing machines; 200-ton standard gauge track scale. Christy Park works—Extension to "Horn" welding department to increase capacity; circular welding machine and hand welding rig; motor-driven air compressor. Continental works—4 automatic coupling boring machine. Pennsylvania works—Coupling finishing equipment for manufacture of taper tapped couplings. Riverside works—2 dormitories

for mill employees. Elwood works—Straightening machine for 10-inch tubes. Work in progress: Gary works—New pipe mills, consisting of 5 butt-weld mills, 4 lap-weld mills, and 1 seamless mill with auxiliary departments and shops; 16 dwelling houses. National works—5 hot blast stoves for blast furnaces Nos. 3 and 4. Christy Park works—2,500-horsepower boilers and auxiliary facilities. Continental works—Coupling finishing department, including electro-galvanizing plant. Pennsylvania works—8-spindle vertical tapping machine for 6-inch to 12-inch couplings. Ellwood works—Extension to main building, additional finishing machinery and relocating equipment in No. 1 hot mill; facilities for producing seamless coupling blanks 1¼-inch to 2-inch sizes.

The National Tube Co., work completed: Lorain works—Improvements to screening facilities at by-product coke plant; 100-foot extension to pipe galvanizing plant building and additional galvanizing equipment; building and equipment for electro-galvanizing couplings; 8-spindle tapping machine and 2 reeaming machines for coupling shop; improvements to No. 2 butt-weld mill gas producers; 5 cinder ladle cars for blast furnaces; automatic safety couplers on 43 narrow-gauge cars.

Work in progress: Lorain works—New boiler house building; six 1,500-horsepower gas-fired boilers and auxiliary facilities; 1,000-kilowatt motor generator set at blast furnace blowing engine house; 3-bay extension to gas engine building and additional gas engine unit with 3,300-kilowatt alternator.

American Steel & Wire Co., work completed: Newburgh Steel works—Two 60-ton ladles and 12 charging cars for open-hearth department; scrap handling equipment at converters in Bessemer department. Newburgh wire works—8 cold-rolling machines. Central furnaces and docks—Rebuilding ore unloading runway at docks; air compressor for power house; 25-ton locomotive crane; standard gauge spreader for slag dump. By-product coke works—Coke quenching car. Cuyahoga works—Enlarging annealing building; additional annealing equipment for flat-rolled material; slab heating furnace No. 3 strip mill; variable speed motors for 5 cold-rolling machines; 6 coiling machines for cold-rolling department. Consolidated works—New pot annealing building, two 4-pot annealing furnaces and auxiliary facilities; hydraulic pumping unit in rod mill pump house. H. P. works—150-ton railroad track scale; ten 3d spring nail machines. Waukegan works—Billet conveyor in rod mill; patenting furnace and auxiliary equipment for additional patenting unit; 150-ton track scale. Rockdale works—Rod handling system through wire mill dry house; additional galvanizing unit for netting; hand-operated stokers for 4 boilers; American lawn fence machine. Scott Street—Improvements in cleaning house facilities; new take-up frame for No. 1 galvanizing outfit. De Kalb works—Roof over rod dock; 2 concrete neutralizing tanks in sulphate of iron department; straightening and cutting machine. Anderson works—Track scale in yard department; ten 3d American nail machines. Shoenberger works—Granulated slag handling equipment for No. 2 blast furnace; 10-ton electric overhead traveling crane in Bessemer department. Allegheny works—Locomotive crane with generator. Rankin works—Extending wire mill building and enlarging baker; 2-tumbler nail galvanizing outfit. Braddock works—15-ton steam locomotive crane. Neville furnaces—Extending ore yard; 7 cinder ladles and cars. River Division—20 steel barges. Worcester, north works—Additional continuous wire-drawing equipment; increasing electro-galvanizing department. Worcester, south works—New crane runway in scrap tank to open-hearth department. Worcester, electric cable works—Improvements in rubber mixing department; additional facilities for saturating weatherproof wire and cable. Fairfield works—12 additional wire-drawing blocks and changing drive; frame warehouse for woven fence. Denver, Colo.—Warehouse building.

Work in progress: Newburgh wire works—Modernizing and increasing capacity of pot-annealing department. Central furnaces and docks—Rebuilding blast furnace "A." By-product coke works—Water-cooling tower and recirculating system; chemical fire-protection system for benzol department. Cuyahoga works—Enlarging grate area and improvements to seven 658-horsepower boilers; 3-bay extension to cold-rolling building; twelve 8-inch cold-rolling machines. American works—Steam jet ash handling system for central boiler plant. H. P. works—Storage and handling facilities for billets and rods at rod mill. Salem works—New boiler house, four 225-horsepower boilers and auxiliary facilities. Scott Street works—Modernizing wire-drawing depart-

ment. De Kalb works—Extending nail mill building and installing nail galvanizing department. Anderson works—New boiler house, four 800-horsepower boilers and auxiliary facilities. Allentown works—Four 600-horsepower boilers with coal and ash handling equipment. Worcester, south works—Two 12-block wire-drawing frames; 3 wire rope machines to make filler rope; single reheating furnace. Worcester, central works—Additional annealing facilities, including building and four 4-pot annealing furaces. Worcester, electric cable works—Improved type stranding and armoring machine for wire cable. New Haven works—Extension to power station building; 1,250-horsepower turbo-generator and additions to steam power facilities. The finishing departments at Worcester, north, south, and central works, are being equipped to operate by electric power. Equipment is being installed at Cuyahoga, American, Waukegan, and Fairfield works for mechanically handling bundles in the wire-drawing departments. For installation at various works 60 double-blow nail machines and 1,250 wire mill buggies are being constructed.

American Sheet & Tin Plate Co., work completed: Gary works, sheet mill—Motor-driven corrugating machine; 25-ton locomotive crane. Vandergrift works—New manipulator for blooming mill; equipment for utilizing exhaust steam to heat warehouse buildings; lime storage building and track connection; boarding house for employees; rebuilding locomotive. Shenango works—4 pressure blowers for air cooling at tin pots; settling tank at water softening and purifying plant; 5 electric storage battery tractors. National works—2 pressure blowers for air cooling at tin pots. New Castle works—Extension to annealing building and relocating white pickler; 2 pressure blowers for air cooling at tin pots. Wood works—2 stands of motor-driven cold rolls. Leechburg works—New pump house and pit. Sabraton works—Foundations, bed plate, mechanical doublers and underfeed stokers for hot mills Nos. 1 to 10; additional machine shop equipment. Chester works—Extension to annealing building; new annealing furnace and improvements to charging facilities on 4 furnaces. Dover works—Motor-driven bar shear with approach table and piler. Laughlin works—Tractor system for handling boshes between white pickler and tinning machines. New Philadelphia works—Continuous open annealing furnace. American works—Mechanical doubler with shear for No. 6 hot mill; tractor system for handling boshes between white pickler and tinning machines. Canton roll and machine works—Motor-driven planer, shaper, and slotter for machine shop. The site and building occupied as a research laboratory in the city of Pittsburgh were purchased.

Work in progress: Vandergrift works—75-foot extension to scrap drop runway and installing 10-ton crane with lifting magnet and grab bucket. Shenango works—1,500-kilowatt turbo generator and condenser in power house; 18 brick stacks over tin pots and rearranging tin house equipment. National works—Water softening and purifying system for boiler plant. New Castle works—Coal-handling systems at hot mill, annealing furnaces, gas producers, tin and boiler houses. Pennsylvania works—300-kilowatt engine-driven generator and enlarging power-house building. Laughlin works—500-kilowatt turbo generator. American works—Extension to boiler house and new 693-horsepower boiler. Further progress was made in improving the coke tinning equipment at Gary, Shenango, National, New Castle, Pittsburgh, Laughlin, Crescent, and American works.

Sharon Tin Plate Co., work completed: Farrell works—Mechanical stokers and coal and ash handling equipment for 10 sheet and pair furnaces; motor-driven hydraulic pump for scrap bundling presses.

Work in progress: Farrell works—Rebuilding hot mill furnaces Nos. 1 to 10 and equipping with mechanical stokers; improvements to coke tinning equipment.

American Bridge Co., work completed: Ambridge works—Sprinkler system in templet shop and store room; dormitory for laborers. Pencoyd works—Charging and drawing machine for 28-inch mill. Elmira works—Rebuilding templet shop; lean-to addition to machine shop. Land purchased—19 lots and buildings at Elrama, Pa.

Work in progress: Ambridge works—Rebuilding annealing furnace in eye bar shop. Shiffler works—Additions to and modernizing tower plant. Pencoyd works—New stack for No. 3 boiler.

Canadian Bridge Co. (Ltd.), work completed: Walkerville, Ontario works—Enlarging galvanizing department building; additional galvanizing equipment. Union Steel Co., work completed: Donora wire works—3 electric welded reinforcement machines; additional warehouse facilities; new roof over clean-

ing house; steam locomotive crane. Farrell works—Coal and ash handling equipment for gas producers at blooming mill; monorail system for gas producers and rod mill scale pit; new floor in wire mill; 5 Clark side dump cars. Mercer works—Continuous annealing furnace and building.

Work in progress: Donora steel works—Ingot track scales. Donora wire works—New engine for No. 8 rod mill; equipment for mechanically handling bundles in wire drawing department. Farrell works—Rebuilding 3 furnaces in open hearth plant; 12 waste heat boilers for open hearth plant, including reversing valves for 12 furnaces.

Clairton Steel Co., work in progress: Clairton works—New boiler plants for steel works and blast furnaces; water purifying plant for boiler feed water; additions to 40-inch blooming mill.

Clairton By-product Coke Co., work completed: Clairton works—2 motor-driven centrifugal pumps for coke quenching stations.

Work in progress: 366 additional by-product coke ovens, with facilities for tar and ammonium sulphate recovery; benzol plant; gas booster station.

Tennessee Coal, Iron & Railroad Co., manufacturing properties, work completed: Ensley works—6,884-horsepower and two 779-horsepower boilers for No. 1 steam plant; pulverizing coal plant with handling and storage facilities; 6 cinder cars and pots for blast furnaces; rebuilding billet yard crane runway; motor drive for 28-inch rail mill; cooling towers at No. 2 power plant; 8-room addition to school for colored children. Bessemer rolling mills—200-ton shipping scale. Bessemer furnaces—Three 500-horsepower boilers for blast furnaces Nos. 1 and 2; water line from Raimund and Muscoda mines. Central water works—Water recovery and cooling system; raising Bayview dam spillway 4 feet.

Work in progress: Ensley works—Turbo-blower, condenser, and cooling tower for additional blowing capacity at blast furnaces.

Fairfield Steel Co., work completed: Steel works—11-inch merchant mill; additions to 45-inch blooming mill to roll 4-inch billets; wood car and repair shop; lumber storage yard and planing mill; third hot unit in tie plate finishing department; steam hammer in forge shop. By-Product Coke plant—Drying equipment for ammonium sulphate; additional wash oil circulating tanks.

Work in progress: Steel works—Steel foundry; enlarging finishing end of structural mill; central bathhouse.

United States Steel Products Co., work completed: San Francisco warehouse—Extending Twentieth Street dock 320 feet. Land purchased—7 acres for warehouse site at Vernon, Calif.

Work in progress: Los Angeles warehouse—Warehouse building and equipment at Vernon, Calif.

COAL AND COKE PROPERTIES

Total expended during the year $8,079,269

For the acquirement of 2,073 acres coal lands in Fayette, Mercer, and Greene Counties, Pa., and in Vermilion County, Ill., and 339 acres surface land in Fayette County, Pa., there were expended $461,953.84.

In the Connellsville district at Colonial Nos. 1, 3, and 4 works, for facilities to increase the output of coal and for underground transportation through Alice mine to Colonial dock there were expended $3,688,250.26. A ventilating shaft is being constructed at Dilworth works and a motor-driven ventilating fan, with electric transmission line and motor house, was installed at Maxwell works. Water sprinkling systems to settle dust and for fire protection were completed at Maxwell, Gates, and Colonial Nos. 1, 3, and 4 works. Additional pumping equipment and ash conveyor system at Hostetter works and the pumping plant at Filbert works were completed. Pumping facilities were installed at United works and are being installed at Palmer works. Additions were made to the boiler plant at Nos. 1 and 2 slopes, Brushwood pump station and brick works at Lemont works. To replace steam power the mine at Marguerite works was equipped for electric operation and similar change in power is being made at Footedale works. An electric haulage system is being installed at Leith works to replace the rope haulage system. Concrete lining for the air shaft at Continental No. 1 works was completed and the tipple at Edenborn works is being remodeled. There were expended $305,754.40 for 113 double tenement houses completed at Ralph, Maxwell, Gates, Lambert, Edenborn,

Footedale, Calumet, and Filbert works and for 30 houses being constructed at Palmer works. Boarding houses were completed at Footedale, Collier, Leisenring No. 3, Calumet, Hecla No. 1, Phillips, and United works, and bathhouses at Gates, Collier, and Phillips works for which there were expended $50,714.20. Coke drawing machines were installed at Yorkrun, Collier, Leith, Leisenring electric locomotives and cars, there were expended $145,976.54.

No. 3 and Hecla No. 3 works. For additions to mine equipment, including

In the West Virginia and Kentucky fields additions are being made to the main power plant at Gary, W. Va., including extensions to the power, boiler, and crusher plant buildings, 3,000-kilowatt turbo-generator, condenser, cooling tower, two 800-horsepower boilers and coal pulverizing equipment. At works Nos. 2, 6, and 9 there are being installed new pit mouths and electrical facilities, with power transmission line, and at works No. 40 the plant is being completely equipped to operate by electricity. At works No. 10 a 300-kilowatt rotary converter, with transformers and switchboard, was installed. At works Nos. 2, and 9 brick buildings are being constructed for use as combined mine office, bath house, and emergency hospital. At works No. 7 an amusement building is being built, and at Lynch, Ky., a brick school building for colored children was completed.

In Allegheny and Washington Counties, Pa., there were expended $1,218,483.03 account construction of two new mining plants, works Nos. 3 and 4, and for 48 electric coal mining machines for works Nos. 1, 2, and 4. Additions are being made to the electrical equipment at Works No. 2, including 675-kilowatt motor generator set.

In the Illinois coal field, for the further development of the mine at Bunsenville works, there were expended $263,649.74. The installation at Vermilion works of equipment to permit operation of plant with electric current was completed, and at Universal works equipment for a similar purpose is being installed. To provide additional power for haulage and gathering locomotives two 150-kilowatt generators are being installed at Middle Fork works. Additional mine equipment acquired included 4 electric locomotives and 200 mine cars. There were purchased 35 standard-gauge 70-ton steel side-dump cars.

In the Birmingham, Ala., district additions were made to the boiler plant at Hamilton slope of Pratt works and an addition to the boiler plant at Docena works is in progress; a 500-kilowatt motor generator set is being installed at Edgewater works and the mechanical coal loaders at Bayview works are being equipped with six 125-horsepower double drum electric hoists; four Jeffrey locomotives were purchased for the Bayview works and Docena works; a bathhouse is being constructed at Docena works and the school for colored children is being enlarged at Edgewater works.

IRON ORE AND FLUORSPAR PROPERTIES

Total expended during the year, $5,313,516.

The foregoing aggregate expenditure includes, in addition to the plant expenditures listed below, an outlay of $409,503.89 to purchase fractional outstanding interests in ore properties and for surface land in St. Louis and Itasca Counties, Minn. There was also expended the sum of $1,603,511.20 for equipment for use at the various mines, viz, 12 locomotives, 12 steel flat cars, 101 steel stripping cars, 2 locomotive cranes, two 300-ton revolving steam shovels, three 50-ton revolving steam shovels, 2 steel spreaders, and 10 caterpillar trucks for steam shovels.

Norris-Aurora mines—Sanitary facilities in 50 houses in N Pabst location and sewer lines connecting with main sewer; 32 double drum-tugger hoists. Puritan mine—New structural steel headframe and idler stands. Geneva mine—Account equipping new shaft. Tilden mine—Change house; 2-stage air compressor. Pioneer mine—Extending stockpile trestles at A and B shafts; 12 double drum tugger and 6 slusher hoists. Lewis mine—Account steel bridge and tracks for mine approach, coal dock, water tank, and transmission line. Fraser mine—Account 35 dwellings and boarding house; also water and sewer systems. Hibbing district—Account new crushing and screening plant, air compressor, and machine equipment for shops. Hull-Rust mines—Temporary crushing plant; 4 motor-driven pumps and electric air compressor for boiler plant. Virginia district—Account new crushing and screening plant, including approach; account tracks to Leonidas concentrator plant from Missabe Mountain ore yard; 8 dwellings. Virginia mines—Drainage well and pumping

equipment at No. 2 shaft. Minnewas mine—Account 4 dwellings; account pumping plant and coal dock for water and fuel supply for stripping operations. McEwen mine—Account equipping new shaft.

In the Red Mountain district, Ala., motor-driven air compressors were installed at Wenonah and Ishkooda works; a transformer substation was built at Wenonah works; 50 water hammer type drills were purchased for Muscoda and Wenonah works; a 2-room and auditorium addition was made to the school for colored children at Wenonah works; 70 ore loaders are being installed at various works.

A Fluorspar property in Crittenden County, Ky., was purchased at a cost, including outlays made for development to close of year, of $861,223.63.

TRANSPORTATION PROPERTIES

Total expended during the year..... $11,128,785.

The total expenditures as above include the cost of 2 motor-ships, the *Steelmotor* and *Steelvendor*, for service on the St. Lawrence River and the Great Lakes and for standard gauge railroad equipment, viz: 30 locomotives, 510 steel underframe gondola cars, 261 steel side-dump cars, 135 steel underframe box cars, 115 steel gondola cars, 100 steel composite coal cars, 7 steel caboose cars, 2 boarding cars, and 1 locomotive crane. For the additional steamers and equipment there were expended $5,480,780.62.

By Union Railroad Co.—At Bessemer, Pa., account coaling and sanding station, completing ash handling plant at engine house and at Monongahela Junction for machinery for car shops, $29,495.71; on Duquesne Branch at Swamp and Orchard yards for additional tracks and relocation of tracks and at Munhall, Pa., for rearrangement of tracks, $43,745.27.

By Bessemer & Lake Erie Railroad Co.—For widening channel between docks Nos. 1 and 4, concrete dock front and machine runways and for 100-ton scales at Conneaut Harbor, Ohio, $827,108.00; account 100-foot turntable and lengthening 4 stalls at shops roundhouse and new tool room for shops at Greenville, Pa., $62,631.98; 4-stall engine house, ash pit and tracks at North Bessemer, Pa., $18,283.77; eliminating grade crossings and improving highways in vicinity of Greenville, Pa., and Osgood, Pa., completing triple arch and making fill for new southbound track between Pardoe, Pa., and Coolspring, Pa., and filling for changes to main line north of Culmerville, Pa., and south of Rural Ridge, Pa., $443,314.48; Y track for turning locomotives at Albion, Pa., enlarging yard and new track scale at Branchton, Pa., new yard and eliminating grade crossing at Rural Ridge, Pa., and enlarging Curtisville-Russellton, Pa., yard, $88,792.94; at various points for relaying track with heavier rail, $124,933.89.

By Elgin, Joliet & Eastern Railway Co.—At East Joliet, Ill., for new steel car shop, 14-stall addition to roundhouse, 1,000-ton concrete coal chute, cinder pit and terminal buildings, $732,852.70; at Joliet, Ill., for additional machinery for blacksmith, car and locomotive machine shops, $58,946.78; at Kola, Ill., for additional interchange track, at Joliet, Ill., for coal stocking tracks and at Matteson, Ill., for constructing separate grades at crossing with Illinois Central Railroad tracks, $90,212.56; at East Joliet, Ill., for filling 4 spans of bridges over Desplaines River, revising track grade and constructing second track to Coynes, Ill., $218,156.93; at various locations for increased weight of track material and improvements to road bed, $51,268.82.

By Chicago, Lake Shore & Eastern Railway Co.—For 20-stall addition to roundhouse, 1,000-ton concrete coal chute, 60-foot extension to wood working shop and additional machinery for shops in Kirk Yard at Gary, Ind., $371,860.05; for track connections to tube plant at Gary, Ind., and for various tracks to serve the steel plants at South Chicago, Ill., and Gary, Ind., $45,651.71.

By Duluth & Iron Range Railroad Co.—At Two Harbors, Minn., account concrete pocket bottoms and steel fronts for ore dock No. 1 and concrete partitions, raising and widening deck and steel and concrete approach for ore dock No. 6, $56,664.61; at Two Harbors, Minn., for coal screening plant, 750-k. w. turbo-generator for power plant and machine equipment for shops, $153,079.98; at Eveleth, Minn., for passenger and freight terminal and at Elba, Minn., and Mile Post No. 111, Minn., for overhead highway crossings, $40,490.63; at various locations for yard tracks, sidings and spurs and for increased cost of track material laid in renewals, $50,053.55.

By Duluth, Missabe & Northern Railway Co.—For land purchased for terminal extension at Proctor, Minn., and for gravel pit at Hibbing, Minn., $20,264.70; for additional equipment at coal and limestone docks and extension to electric station building at ore docks at Duluth, Minn., $78,624.46; machinery and tools for shops at Proctor, Minn., 5-stall engine house at Coleraine, Minn., and water station at Coleraine Junction, Minn., $106,960.78; for additional scale tracks in yard at Proctor, Minn., and passing track at Taconite Junction, Minn., $46,920.97; for tracks at Minnewas and Missabe Mountain Mines at Virginia, Minn., track to ore crushing and screening plant at Hibbing, Minn., and reconstruction of mine-yard tracks and new track connection at Hull-Rust Mine, $207,259.39; for ballasting roadbed between Hull Junction, Minn., and Calumet, Minn., and for increased weight of track material laid at various locations, $72,066.88; for overhead bridges for stripping tracks at Mitchell, Minn., and highway at Emmert, Minn., $38,409.02.

By Spirit Lake Transfer Railway Co.—At Steelton, Minn., for additional yard tracks, and at various locations for bridges and culverts, $41,063.27.

By Tennessee Coal, Iron & Railroad Co.—For account construction of a high line track system for transportation of ore from Red Mountain, Ala., mines to the blast furnaces at Bessemer, Ala., and Ensley, Ala., there were expended $421,739.99.

By Pittsburgh Steamship Co.—For additions to various steamers, including new boilers, tank tops, pilot houses, etc., $553,196.53.

By United States Steel Products Co.—For equipping steamer "Crofton Hall" to use oil as fuel, and miscellaneous additions to 28 steamers to fully equip for foreign service, $184,935.49; 28 gyroscope compasses and 29 soot blowers for various steamers, $197,900.72.

MISCELLANEOUS PROPERTIES

Total expended during the year..... $1,939,929

For a gasoline plant at Waynesburg, Pa., 2 gas-driven air compressors for compressor station at Ryerson, Pa., 2 gas-driven air compressors at South Bend, Pa., and relocating in Marshall County, W. Va., 16,000 feet of 12-inch gas pipe line transferred from Allegheny County, Pa., $100,119.09; 4 200-horse-power boilers at Huron, Pa., water-pumping station and electrification of pumping equipment at Bridgeport, Pa., water-pumping station, $37,292.19; extension of water, gas, and electric systems at Gary, Ind., $136,825.21. In Fayette, Washington, Mercer, and Lawrence Counties, Pa., and Barbour County, W. Va., for 6 brick store buildings and enlarging 1 store building, $270,880.36; at Clairton, Pa., account 200 dwellings and at Youngstown, Ohio, for 26 dwellings, $113,969; at Gary, Ind., for purchase of 129,842 acres land and account construction of roadway to new tube plant, $820,233.48; at Fairfield, Ala., and Westfield Village, Ala., for 26 dwellings and 125 family-unit houses, $171,204.11. At the limestone properties in Pennsylvania land purchases were approximately 755.8 acres surface, 38.5 acres limestone, and 7 lots, for which there were expended $109,668; and for plant additions—Machine shop and tool equipment and new compressor plant at Hillsville plant, in Lawrence County, $27,691.24; 12 dwellings, additional storage track and air operated mine shovel at Annandale plant in Butler County, $44,707.16; 17 double and 15 single dwellings, with street and sewer improvements, at Kaylor plant in Clarion County, $105,450.79.

EXHIBIT K

CARNEGIE STEEL CO.

War period:	Amortization allowed
Item No. 138, general railroad equipment (72.9 per cent)	$348,734
Item No. 139, general railroad equipment (80 per cent)	663,264
Item No. 306, 190 standard-gauge cars (80 per cent)	63,102
Total	1,075,100

NOTE.—Items No. 138 and No. 139 consist of steel hopper cars.

Postwar period: Annual report 1920—4 standard-gauge cars; 2 electric locomotives. Annual report 1921—500 steel hopper cars; equipment for locomotive repair shop. Annual report 1922—75-ton switching locomotive; track scale. Annual report 1923—5 narrow-gauge locomotives.

War period:

Item No. 8, magnetic crane (80 per cent)	$8,508
Item No. 70, locomotive crane and bucket (80 per cent)	7,585
Item No. 148, 4 locomotive cranes (66.3 per cent)	11,561
Total	27,654

Postwar period: Annual report 1920—5 locomotive cranes. Annual report 1923—2 locomotive cranes and buckets.

War period:

Item No. 34, 15,000-kilowatt turbine generator and boilers	$236,834
Item No. 41, 15,000-kilowatt turbine generator (78.5 per cent)	107,138
Item No. 42, boilers for above (78.5 per cent)	46,132
Total	390,104

Postwar period: Annual report 1920—15,000-kilowatt generator and boilers. Annual report 1921—New boiler plant, two 1,000-kilowatt generators. Annual report 1923—New boiler house and boilers; 3,000-kilowatt generator.

War period: Item No. 64, reconstruction blast furnace No. 4 (80 per cent) $30,077.

Postwar period: Annual report 1920—Rebuilding blast furnace No. 5. Annual report 1922—Rebuilding blast furnace No. 3.

War period:

Item No. 325, river equipment (80 per cent), consisting of 3 steamers, 70 steel barges, 1 tug boat	$307,167
Item No. 326, river equipment for coke (80 per cent), consisting of steamers, barges, and tugs	271,897
Total	579,064

Postwar period: Annual report 1921—1 towing steamer, 25 steel barges, 1 service boat. Annual report 1922—1 steamer. Annual report 1923—21 steel barges.

War period:

Item No. 101, rebuilding furnace G (80 per cent)	$14,224
Item No. 110, rebuilding furnace E (80 per cent	39,127
Item No. 111, rebuilding furnace F (80 per cent)	80,077
Total	$133,428

Postwar period: Annual report 1920—Addition to blast furnace C. Annual report 1921—New top on blast furnace I. New condensing equipment for blast furnace. Annual report 1922—Reconstruction of blast furnace No. 3.

War period: Item No. 112, one 10-ton ore bridge to replace bridge No. 4, (80 per cent) $50,802

Postwar period: Annual report 1923—One 10-ton ore bridge.

SUMMARY CARNEGIE STEEL CO.

Total values of items as identified readily, on which taxpayer has given prima facie evidence of 100 per cent use by subsequently purchasing similar facilities	$2,286,229

NOTE.—These items have been selected on very rapid survey, many more exist.

UNION RAILROAD CO.

War period:	Amortization allowance
Item No. 425, 750 steel hopper cars (83.3 per cent)	$421,676
Item No. 426, 20 dump cars (83.3 per cent)	19,044
Item No. 431, rebuilding 557 dump cars (83.3 per cent)	97,707
Item No. 437, rebuilding 1,463 gondolas (83.3 per cent)	322,304
Total	$860,731

Postwar period: Annual report 1920.—Rebuilding 1,950 gondolas and 529 steel hopper cars. Annual report 1921.—Rebuilding 1,991 steel gondolas. Annual report 1922.—9 low side gondolas. Annual report 1923.—261 steel dump cars.

IRON AND MANGANESE ORE PROPERTIES

War-period purchases:	
20 yard steel stripping cars (Oliver Mining Co., p. 15)	$196,736.52
20 yard steel stripping cars (Minnesota Iron Co.)	83,483.67
20 yard steel stripping cars (Lake Superior Consolidated Iron, Mining Co.)	64,959.98
Total	$345,180.17

Postwar period: 1923 annual report shows 101 steel stripping cars.

War-period purchases:	
Steam shovels and locomotive cranes (Oliver)	$29,818.30
Steam shovels and locomotive cranes (Lake Superior)	15,444.50
Total	45,262.80

Post-war period: Annual report 1920.—5 locomotive cranes and 2 steam shovels. Annual report 1923.—2 locomotive cranes and 5 steam shovels. Total, $390,442.97.

UNITED STATES STEEL CORPORATION AND SUBSIDIARY COMPANIES

Illinois Steel Co. War period—Amortization allowed, item No. 12, installation of 11 Boilers at open-hearth plant, 78 per cent, $71,833.63. These are waste-heat Boilers. Postwar period—Annual report 1921, three waste-heat Boilers at No. 3 open-hearth plant.

Special note: The 11 boilers at No. 2 plant are waste-heat boilers. They are an arrangement for cutting down costs rather than increasing production. (See first engineer's report, p. 59.) "When the writer made his visit to the plant all of the furnaces had been equipped with boilers and they are reclaiming enough heat to pay for more than one-half the total amount of coal used in the making of steel."

EXHIBIT L

EXTRACT FROM 1923 REPORT UNITED STATES STEEL CORPORATION TO STOCKHOLDERS

General.—The improvement in the demand for iron and steel products which developed in the early fall of 1922, after nearly two years of depression in the industry, continued in very satisfactory volume until June, 1923, following which there was for several months a decided diminution in the amount of new business offered. In the closing months of the year, however, there was a noticeable improvement in tonnage entered and this has continued to the date of writing this report. At the close of 1923, the tonnage of unfilled orders for various classes of rolled steel products was 4,445,339 compared with 6,745,703 tons at close of the preceding year. At February 29, 1924, the unfilled orders equaled 4,912,901 tons.

Entering the year 1923 with a large tonnage of unfilled orders on the books which was increased by liberal buying during the first five months, the subsidiary companies were enabled to operate on an average during the entire year at 88.3 per cent of capacity, the output during the first half of the year reaching 92.6 per cent. In point of total tonnage output of materials produced for sale, the year 1923 has been exceeded on only two previous years, 1916 and 1917. As a result of these large operations, together with improved selling prices, the earnings for the year show a substantial increase over those of the preceding two years.

EXHIBIT M

DECEMBER 4, 1924.

ENGINEER'S OFFICE REPORT NO. 3

Taxpayer: United States Steel Corporation (including subsidiaries on consolidated return only).

Subject: Amortization originally claimed, $83,482,901.18; amortization allowed, $55,063,812.60.

Foreword: We have just distributed to committee a set-up prepared by us and revised by the engineering division showing the general present practice pursued in the amortization work of the engineering division. This case is presented as fairly typical of this method. In fairness to taxpayer the folliwng statement is made: (a) Taxpayer shows every evidence of having presented case fairly and under instructions of the unit; (b) no tax experts of any kind were hired by taxpayer; (c) statements of fact by the taxpayer are not questioned.

Synopsis of case: 1. In the majority of value in use determinations taxpayer's postwar production has been determined by averaging the production for the years 1921, 1922, and 1923 estimated. We question the method.

2. Prima facie evidence given by the taxpayer in the purchase of facilities in postwar years like or similar to those facilities on which amortization is allowed has been completely disregarded by the unit.

3. Further proof that taxpayer's plant, even after being increased by his war-time expenditures, was still too small is given by the many millions spent in additional facilities all through the postwar period, but this fact has not been taken into account by the unit.

4. The engineering division knew the allowance for amortization was in error on account of much greater production in 1923 than was estimated, but failed to correct their reports.

5. Amortization allowances have been made to railroads which were "common carriers" and under control of the Railroad Administration.

Points at issue.—We shall attempt to show that if the above five points are taken into consideration, as we understand the intent of the law and the principles of engineering, then an approximate difference of $16,000,000 in tax will be found in favor of the Government.

History of the case.—The companies represented on the consolidated return on which amortization is involved number 30. We will not attempt to give the history of the claims of each one of these companies and the way in which they were examined by the unit. The largest subsidiary of the United States Steel Co. is the Carnegie Steel Co. We will give a brief history of claim of Carnegie Steel Co., which is typical of the rest.

In re Carnegie Steel Co.—Field investigation made in May, 1920, by Mr. Frank Fischer, appraisal engineer, claim amounting to $10,622,931.44 was disallowed in full on basis of—

(a) "At the time of the engineer's examination facilities were being operated 100 per cent value in use."

(b) "The appraised value of the properties subject to amortization, as shown on the original amortization claim, had not been estimated in accordance with the bureau's interpretation of the requirements contained in Regulations 45, as issued under revenue act of 1918."

On October 4, 1922, the taxpayer filed a revised amortization claim in the amount of $16,644,177.53.

Between October 31, 1922, and November 30, 1922, a field examination of this claim was made by Engineers H. A. Whitney and E. P. Quirk, of the unit. The official report was filed by them on April 14, 1923, and with the exception of a final supplemental report making a few corrections of small amounts, this report stood as submitted. The amount finally allowed the Carnegie Steel Co. was $9,644,179.37.

In re United States Steel Co. as a whole.—Returning now to the United States Steel Co. as a whole, the following is a list of the companies included on the consolidated return with which we are dealing, together with the final allowances for amortization granted each company by the unit in its final summary made about January 30, 1924.

	Amortization allowed
Carnegie Steel Co. and associated companies	$9,664,179.37
Union Steel Co.	1,136,386.14
Illinois Steel Co. and associated companies	8,341,261.14
Minnesota Steel Co.	822,215.20
Universal Portland Cement Co.	48,345.66
The Lorain Steel Co.	39,800.23
National Tube Co. and associated companies	2,765,096.53
American Steel & Wire Co. and associated companies	3,891,400.16
Edgar Zinc Co.	42,497.27
American Sheet & Tin Plate Co. and associated companies	2,507,746.57
American Bridge Co.	2,400,509.51
Tennessee Coal, Iron & R. R. Co. and associated companies	9,123,314.91
Chickasaw S. B. Co. and associated companies	9,349,630.89
H. C. Frick Coke Co.	1,455,239.23
Hostetter-Connellsville Coke Co.	13,211.10
United States Coal & Coke Co.	674,710.31
United States Fuel Co.	387,811.32
National Mining Co.	9,908.49
Sharon Coke Co.	70,289.45
Republic Connellsville Coke Co.	40,316.25
Sharon Coal & Limestone Co.	4,841.73
Oliver Mining Co. and associated companies	817,537.42
Elgin, Joliet & Eastern R. R. Co., including Chicago, Lake Shore & Eastern R. R. Co.	190,905.25
Duluth, Missabe & Northern R. R. Co.	1,034,370.44
Bessemer & Lake Erie R. R. Co.	221,875.38
Union Supply Co.	622.81
United Supply Co.	199.96
Total	55,063,312.60

It is understood that the final audit of the United States Steel Co.'s returns have not been made from the year 1917 to 1923, inclusive; therefore, this report deals only with the engineering report on same. The engineers' report, however, is the final one, inasmuch as it has left the section and been agreed to by taxpayer.

Discussion of case.—We have prepared, as best could be done in the time available, an analysis of the amortization allowance made to the United States Steel Co. by the unit, together with certain changes which would be made in same if the five points mentioned in the synopsis of this case were taken into account. This analysis is appended under Exhibit A, attached, but is too voluminous to read into the record.

Under our method of computation the approximate result of our analysis with changes on account method or other reason would result in a reduction in the total allowance from $55,000,000 to approximately $28,000,000, or a difference in tax of roughly $21,000,000. This final figure is further modified by an estimated allowance of $5,000,000 in tax probably due taxpayer on account special facilities which could only be accurately determined by a field investigation. Our final figure is then as previously stated $16,000,000 in tax in difference with the unit.

We will now discuss in detail the 5 points of our original statement, but before doing so we wish to emphasize the following fact so that our statements to follow may be clear, as follows:

The amortization allowances on the Chickasaw S. B. Co., the Universal Portland Cement Co., the American Sheet & Tin Plate Co., the American Bridge Co., the Union Supply Co., and the United Supply Co. have not been changed in our analysis in any way, therefore our discussion only affects steel companies, coal and coke companies, railroad companies, and a few manufacturing plants using steel or iron as a raw material.

Point 1.—In the majority of value in use determinations, taxpayer's postwar production has been determined by averaging the production for 1921, 1922, and 1923 estimated. In some cases a portion of the production for 1922 has also been estimated.

We contend that there is no foundation for the averaging of production in this way, but that the value in use should be determined by the peak production of taxpayer's plant during the postwar period which is maintained for a reasonable period. This reasonable period would differ in different industries, but in this industry we would place the maximum period at one year, providing the tax-

payer's plant had the normal ratio of capacity to production as to absorb monthly peak productions.

Simply stated, it appears obvious to us that any business is certain to have fluctuations, and that a progressive company which wishes to secure the benefits of doing as large a business as possible must provide for a plant that will take care of reasonable peak loads in a normal way.

We find no real substantiation in the law or regulations for an averaging method. The law evidently intends to make an allowance for war losses on account of plant, but when a taxpayer in any period prior to March 3, 1924, uses his war plant to full capacity, it would seem to be sufficient evidence that he had not suffered a loss by extending his plant during the war so that it was capable to meet this demand, except in so far as war costs are greater than postwar costs.

We do find, however, in the regulation evidence against the averaging method. See article 184, regulations, Law of 1921, which states, "If after having been in good faith permanently discarded or dismantled, property shall in any case be restored to use because of conditions not foreseen or anticipated at the time it was discarded," then, "the Commissioner must be notified with his next tax return."

This, of course, for purpose of recomputing the amortization allowance. It is obvious to us that if a machine was discarded in 1921 and was put in use in 1923 at about 75 per cent capacity, the value in use would be 75 per cent and not the average use for the years 1921, 1922, and 1923 or the average of 0, 0, and 75 per cent or 25 per cent.

Now we would think it only reasonable and consistent in view of the above that the regulations should also state that if a taxpayer has facilities of lowered value in use and subsequently returned them to a higher value in use then he should report same to the commissioner in order that his amortization allowance might be recomputed.

In these cases we believe that the taxpayer has suffered a certain loss of profit from premature investment in a plant which ultimately becomes available. We contend, however, that this loss, so called, is not a loss on plant or facilities but a loss of profit which we do not think the law contemplated reimbursement for, all actual loss on plant facilities being taken up in the usual way by depreciation.

Point 2.—Prima facie evidence given by the taxpayer in the purchase of facilities in postwar years like or similar to those facilities on which amortization is allowed has been completely disregarded by the unit.

We do not think there can be any controversy on this point, which would seem obvious to anyone, that if taxpayer has, say, a locomotive crane which he purchased in 1918 and then purchases another similar crane in postwar years, then he has given ample evidence that the first crane was fully useful in his business, and only such allowance for amortization could be allowed as would reflect the difference between war and postwar prices.

Further, the solicitor's office in a recent opinion sets forth this fact very clearly, by stating (see Int. Rev. Bull. of Nov. 3, 1924, p. 6, I. T. 2101):

"When a taxpayer has and uses in postwar years not only the facilities acquired during the war but additional facilities subsequently acquired for the same uses and purposes and of substantially the same character as those acquired during the war years, it is prima facie evidence that any reduction of value in terms of use of the war facilities was caused by the overexpansion in postwar years and not as a result of facilities not being useful and needed to full, normal capacity for postwar business."

Ample evidence of this character has been furnished by the taxpayer in the case. Under Exhibit B we are appending five pages of equipment purchased by taxpayer in the year 1923 only, which are similar to facilities bought by taxpayer during the war on which amortization is granted. A detailed statement of these same facilities and many others is contained in the annual reports of the United States Steel Corporation to its stockholders for the postwar years.

To bring this out clearly we will mention a very few items which were amortized by the Carnegie Steel Co., who subsequently purchased other similar facilities.

Amortized to 80 per cent in use a locomotive crane, then in 1923 bought another locomotive crane. Amortized to 80 per cent in use cost of rebuilding furnaces, then in 1923 built more new furnaces.

Amortized to 80 per cent in use 10-ton ore bridge, then in 1923 built new 10-ton ore bridge. Amortized to 80 per cent in use 150-by-product coke oven, then in 1923 built 360 new by-product coke ovens.

As a general statement, a careful review will show that the very large plant extensions and additions made in postwar years were similar in most cases to those additions made during the war period on which amortization was allowed.

We contend that this point is very far-reaching in its effect on amortization in this case, but has not been considered by the unit.

Point 3.—Further proof that taxpayer's plant, even after being increased by his war-time expenditures, was still too small, is given by the many millions spent in additional facilities all through the postwar period, but this fact has not been taken into account by the unit.

Inasmuch as this point is related to point 2 above, we will confine ourselves to stating that these additions in postwar years were similar to those in war years upon which amortization is claimed. Expenditures for war years down to date are given herewith as taken from annual report to stockholders of the United States Steel Corporation.

1917	$117, 977, 117. 90	1921	$70, 091, 886. 00
1918	129, 855, 037. 78	1922	29, 571, 662. 00
1919	87, 091, 514. 67	1923	60, 732, 920. 00
1920	102, 956, 133. 00		

If the $29,000,000 which was approximately spent on shipyards during the war years, and on which we have as previously stated not touched the amortization allowance, is subtracted from the war costs above, it is seen that there was only a reasonable curtailment of plant expenditures in the postwar period, and ample evidence of necessity for a larger plant than the war plant provided.

Point 4.—The engineering division knew the allowance for amortization was in error on account of much greater production in 1923 than was estimated, but failed to correct their reports.

In evidence of this we submit the following conference report:

MEMORANDUM

JANUARY 24, 1924.

Head Engineering Division.

Subject: Supplementary Conference of United States Steel Corporation.

The following conference took place at the office of the chief of the engineering division, Room 2013, Tempo Building, No. 5. Those present were J. C. Keenan, assistant chief of nonmetals section; J. C. Hering, conferee; H. A. Whitney, engineer; C. B. Watkins, engineer, and C. B. Newbury, engineer. The purpose of the hearing was to determine the advisability of opening up the amortization case of the United States Steel Corporation for the purpose of reducing the amortization allowed the taxpayer.

The conferees agreed that if the case were opened the probabilities were that any reduction in amortization due to increased production in 1923, would probably be offset by a rebuttal of the taxpayer to the effect that the Bureau disregarded, in its calculations for value in use, the increased production of the prewar year 1916 which, if included, would materially have increased the amortisation allowance.

It was further decided that there would be an injustice to one taxpayer if the case for amortization was opened on the showing of the increase of the 1923 activities unless the same action was taken on all taxpayers who were affected in a like manner to that of the United States Steel Corporation.

J. C. KEENAN,
Assistant Chief of Nonmetals Section.
J. C. HERING,
Conferee.
H. A. WHITNEY,
Engineer.
C. B. WATKINS,
Engineer.
C. B. NEWBURY,
Engineer.

We contend the argument presented in this report as to the rebuttal of taxpayer to the effect that the unit disregarded the production in 1916 is not well founded. The year 1916 was clearly abnormal, being the year of the highest price of steel ever known before or since in the industry, and as the calculation of the ratio between capacity and normal production was being arrived at abnormal

conditions would of necessity be thrown out. Further the year 1928 was not abnormal, but simply a good business year.

The argument as to the injustice to taxpayer in opening up his case and not other cases in the same class is well taken from one point of view; on the other hand how about the injustice to taxpayers who happened to come in at a date when actual 1923 conditions were known and not estimated? We think the argument that there were a lot of incorrect determinations in the section which ought to be refigured a poor argument for not refiguring all of them.

Let us see even on the method used by the department in this case approximately what difference this would make if we used actual production instead of estimated.

As determined by the unit the following figures were used in arriving at value in use by production of pig iron.

1921 production	tons	8, 678, 262
1922 production (part estimated)	do	11, 080, 384
1923 production (estimated)	do	14, 149, 649
Total	do	33, 908, 295
Average	do	11, 302, 765
Ratio capacity to production	per cent	131. 3
Necessary postwar capacity	tons	14, 840, 530
Actual postwar capacity	do	18, 499, 340

Value in use, $\frac{14,840,530}{18,499,340}$ 80 per cent.

Based on actual figures instead of estimated same method would give as follows:

1921 production	tons	8, 678, 262
1922 production	do	12, 027, 163
1923 production	do	16, 729, 226
Total	do	37, 434, 651
Average	do	12, 478, 217
Ratio capacity to production	per cent	131. 3
Necessary postwar capacity	tons	16, 383, 899
Actual postwar capacity	do	18, 499, 340

Value in use, $\frac{16,383,899}{18,499,340}$ 88 per cent.

We have also figured this case for steel ingot production with the same result 88 per cent against 80 per cent.

If now we used this 88 per cent instead of the 80 per cent factor, it being borne in mind that the great majority of items in this case have been amortized on this basis, then it is obvious that the change in the amortization allowance on these items would have been as 8 per cent is to 20 per cent or a difference of 40 per cent. Remembering now that the total amortization allowance was $55,000,000 it is obvious that this correction would make many millions difference in the final result and tax.

When the law stated in section 214 (a) of 1921, that "At any time before March 3, 1924, the commissioner may and at the request of the taxpayer shall reexamine the return, and if he then finds * * * that the deduction originally allowed was incorrect, the * * * taxes for the year or years shall be redetermined," we contend that this implies a duty upon the unit to correct allowances in substantial error if they appear evident before March 3, 1924.

Point 6.—Amortization allowances have been made to railroads which were "Common carriers" and under control of the Railroad Administration.

We contend the railroads which are not used exclusively for the taxpayer's business and are "common carriers" which were under control of the United States Railroad Administration should not be allowed amortisation.

Railroads in general have not been allowed amortisation nor are they legally amortizable. Further, the United States Railroad Administration, by its payments to railroads, has practically admitted its liability for all losses incurred during the war period.

In addition, railroads whose stock is owned by the United States Steel Corporation, which is a parent or holding company and of itself does not produce an article for the prosecution of the war or any other article, are clearly not amortizable.

ADDITIONAL POINTS OF INTEREST

Certain items have been allowed a lowered value in use which allowance appears to us ridiculous. A few of these items are listed below.

One 150-ton wrecking crane, 80 per cent in use; one master mechanics house, 85 per cent in use; remodeling superintendent's house, 85 per cent in use; highway bridge over tracks, 85 per cent in use; double-track steel girder bridge, 85 per cent in use.

It appears to us obvious that if a wrecking crane is needed at all it is 100 per cent in use, as such apparatus is seldom used continuously.

We think it also will be agreed if a superintendent's house is needed at all it is needed 100 per cent, also if bridges are necessary, then, it is not proper to say that they are only 85 per cent in use, when bridges are very seldom crowded to capacity all the time.

CONCLUSION

As previously stated, we have presented this case as more or less typical of the method which has been used by the department in handling amortization allowances.

It appears to us that the methods used do not represent an accurate determination of the real war loss taken by the taxpayer by the purchase of war facilities. Further assumptions and estimates which might not be quite so apparent in small cases, in a large case involving millions, such as this, make an enormous difference in the tax collected.

Respectfully submitted.

L. H. PARKER, *Chief Engineer.*

EXHIBIT A OF M

	Allowance by unit	Apparent proper allowance	Overallowance	Difference in tax
Carnegie Steel Co. and associated companies	$9,664,179.37	$2,129,117.88	$7,535,061.49	$6,000,218.90
Union Steel Co.	1,136,386.14	289,243.75	847,142.39	695,554.50
Illinois Steel Co. and associated companies	8,341,261.14	1,771,705.10	6,569,555.94	5,200,394.71
Minnesota Steel Co.	822,215.20	118,435.66	703,779.54	579,914.34
Universal Portland Cement Co.	48,345.56	48,345.56		
The Lorain Steel Co.	39,800.23	22,688.81	17,131.42	12,679.09
National Tube Co. and associated companies	2,765,096.53	1,775,660.62	989,435.91	732,784.53
American Steel & Wire Co. and associated companies	3,891,400.16	2,011,734.76	1,879,665.40	1,537,371.81
Edgar Zinc Co.	42,497.27	42,297.27		
American Sheet & Tin Plate Co. and associated companies	2,507,746.57	2,507,746.57		
American Bridge Co.	2,400,599.51	2,400,678.41		
Tennessee Coal, Iron & Railroad Co. and associated companies	9,123,314.91	2,883,822.46	6,239,492.45	4,283,074.47
Chickasaw S. B. Co. and associated companies	9,349,630.89	9,349,630.89		
H. C. Frick Coke Co.	1,455,239.23	894,311.60	560,927.63	455,618.39
Hostetter-Connellsville Coke Co.	13,211.10	3,769.86	9,441.24	7,779.59
United States Coal & Coke Co.	674,710.31	391,297.42	283,412.89	218,909.22
United States Fuel Co.	337,811.32	180,115.04	257,696.28	202,700.14
National Mining Co.	9,908.49	9,908.49		
Sharon Coke Co.	70,289.45	53,666.14	16,623.31	13,258.73
Republic Connellsville Coke Co.	40,316.25	17,688.61	22,227.64	16,544.42
Sharon Coal & Limestone Co.	4,841.73	4,841.73		
Oliver Iron Mining Co. and associated companies	817,537.42	279,268.49	538,268.93	396,768.40
Elgin, Joliet & Eastern Railroad Co.	199,905.23		199,905.23	141,362.89
Chicago, Lake Shore & Eastern R. R. Co.				
Duluth, Missabe & Northern R. R. Co.	1,034,370.44		1,034,370.44	760,759.45
Bessemer & Lake Erie R. R. Co.	221,875.38		221,875.88	152,825.31
Union Supply Co.	622.81	822.77		
United Supply Co.	199.96			
Total	55,083,312.00	27,136,987.89	27,926,014.01	21,438,513.80

THE ASSOCIATED COMPANIES OF THE CARNEGIE STEEL CO.

	Total costs, 1917–1920 *	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
Carnegie Steel Co.:							Per cent
Class I	$208,495.12	$541.90	$208,053.22				24
Class II	27,552,167.92	53,499.61	27,498,668.31	$26,467,699.17	$638,953.55	$25,828,715.33	75
Total	27,755,663.04	54,041.51	27,701,621.53	26,467,699.17	638,953.65	25,828,715.33	
Clairton Steel Co	362,052.49	522.42	361,530.07	337,863.44	6,200.13	331,663.31	73.5
Clairton By-Product Coke Co.:							
Class I	4,686.01		4,686.01				
Class II	1,341,869.20		1,341,869.20	1,496,011.32	509.53	1,497,519.79	189
Total	1,646,557.21		1,646,557.21	1,496,011.32	509.53	1,497,519.79	
Carnegie Natural Gas Co., Class II	2,056,665.36	1,286.26	2,055,379.02	2,021,014.17	4,800.10	2,026,214.07	129
Union Railroad Co., Class II	3,497,495.26	41,699.09	3,455,796.17	3,203,710.66	198,227.36	3,071,782.80	33
Monongahela & Southern, Class II	13,143.90		13,143.90	16,990.57		16,990.57	89
St. Clair Terminal, Class II	41,393.59		41,393.59	33,163.97	2,263.66	35,900.21	33
Youngstown & Northern, Class II	166,876.32	3,164.09	163,712.23	156,029.36	18,166.90	137,862.46	80
Mercer Valley R. R., Class II	16,114.12	275.67	15,838.45	15,114.12	842.69	15,271.43	79.5
Pittsburgh Connecut Dock Co.:							
Class I	17,629.53	293.83	17,335.70				
Class II	341,724.91	904.79	340,820.12	292,948.02	5,192.33	287,755.69	95
Total	359,354.44	1,198.62	358,155.82	292,948.02	5,192.33	287,755.69	
Grand total	35,950,799.25	102,167.66	35,848,631.59	34,119,544.80	880,843.05	33,240,626.75	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Carnegie Steel Co.:					
Class I	$47,729.20	$155,224.02	No change	$155,224.02	No change.
Class II	19,232,158.60	8,155,509.71		1,669,952.99	
Total	19,279,887.80	8,321,733.73		1,825,177.01	1923 production and prima facie evidence given by purchase of new facilities by taxpayer.

Clairton Steel Co.	264,886.80	96,642.27	100 per cent	29,536.76	Do.
Clairton By-Product Coke Co.:					
Class I	2,596.60	2,091.41	No change	2,091.41	
Class II	1,497,510.79	144,358.41	100 per cent	144,358.41	
Total	1,500,107.39	146,449.82		146,449.82	No change.
Carnegie Natural Gas Co., Class II	2,026,214.07	59,185.55	100 per cent	59,185.55	Do.
Carnegie Land Co., Classes I and II					Do.
Clairton Land Co., Classes I and II					Do.
Sharon Land Co., Classes I and II					Do.
Connsaut Land Co., Classes I and II					Do.
Union R. R. Co., Class II	2,599,922.34	836,763.83	Not allowed		Common carrier; also probably 100 per cent in use in 1923.
Monongahela & Southern, Class II	14,705.96	3,428.62	do		Do.
St. Clair Terminal, Class II	23,904.96	11,961.63	do		Do.
Etna & Montrose Railroad Co., Class II			do		Do.
Youngstown & Northern, Class II	116,289.97	53,422.26	do		Do.
Mercer Valley Railroad, Class II	12,140.73	3,697.67	100 per cent	842.69	1923 production (depreciation allowed as amortization, as it exceeds amortization).
Pittsburgh Connsaut Dock Co.:					
Class I	2,774.08	14,561.62	No change	14,561.62	No change.
Class II	274,513.95	86,301.17	100 per cent	53,064.43	1923 production.
Total	277,288.03	80,862.79		67,626.05	
Grand total	26,134,452.23	9,664,179.37		2,129,117.88	

BASIS OF AMORTIZATION

Year	As allowed	Bracket	Reduction in tax
		Per cent	
1918	$9,290,591.55	80 (82.4 consolidated)	$7,647,207.44
1919	373,945.25	20 (28 consolidated)	104,704.67
1920	9,642.57	20 (28 consolidated)	2,699.92
Total	9,664,179.37		7,754,612.03

COMPUTATION OF PROPER TAX REDUCTION

[NOTE.—All allowed in 1918 (approximately) in favor of taxpayer]

Year	Amount of allowance	Bracket	Amount reduction in tax
		Per cent	
1918	$2,129,117.88	80 (82.4 consolidated)	$1,754,393.13
Total	2,129,117.88		1,754,393.13

CHANGE IN AMORTIZATION ALLOWANCE

Amount allowed	$9,664,179.37
Amount recommended	2,129,117.88
Over allowance	7,535,061.49

CHANGE IN TAX

Reduction allowed	$7,754,612.03
Reduction recommended	1,754,393.13
Additional tax (also recommended)	6,000,218.90

ILLINOIS STEEL CO. AND ASSOCIATED COMPANIES

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use
Illinois Steel Co.:							*Per cent*
South works (1–21)	$7,336,555.05	$16,670.08	$7,319,884.97	$7,336,555.05	$253,186.87	$7,083,368.18	
South works (22–42)	2,351,127.06	108,285.27	2,242,841.79	2,351,127.06	17,906.02	2,333,221.04	
North works (44)	1,599.00	26.65	1,572.35	1,599.00	133.25	1,465.75	
Joliet works (45–61)	713,169.76	949.31	712,220.45	713,169.76	13,164.99	699,995.77	
Milwaukee works (62–68)	394,788.55	247.09	394,541.46	394,788.55	6,069.52	388,719.03	
Indiana Steel Co.:							
69–90	13,883,642.43	26,257.96	13,847,364.52	13,883,642.43	383,668.02	13,500,974.46	
91–112	2,216,105.62	1,968.36	2,214,167.26	2,216,105.62	18,634.69	2,197,470.93	
Gary Land Co. (112–114))	873,181.98		873,181.98	873,181.98	33,243.72	839,938.26	100
Total	27,770,169.50	164,365.72	27,605,794.78	27,770,169.50	724,907.08	27,045,253.42	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Illinois Steel Co.:					
South works (1-21)	$4,706,279.33	$2,613,605.64	100 per cent (except note A).	$1,141,274.41	1923 production and prima facie evidence of addition of new facilities, except see note A.
South works (22-43)	1,365,335.83	877,505.96	100 per cent (except note B).	214,987.56	1923 production and prima facie evidence of addition of new facilities, except see note B.
North works (44)	674.25	898.10	100 per cent	106.60	1923 production and prima facie evidence.
Joliet works (45-61)	506,504.80	205,715.65	do	13,164.99	Do.
Milwaukee works (62-68)	206,269.11	88,272.35	do	5,821.43	Do.
Indiana Steel Co.:					
69-90	9,790,506.82	4,056,785.70	do	343,419.06	Do.
91-112	1,748,933.24	455,224.02	do	16,696.33	Do.
Gary Land Co. (113-114)	939,938.36	35,243.72	do	33,243.72	No change.
Total	19,264,533.64	8,341,261.14		1,771,705.10	

Amount allowance	$8,341,261.14
Proper allowance	1,771,705.10
Overallowance	6,569,555.94

SPREAD OF AMORTIZATION

1918	$7,949,865.05×0.824=		$6,550,686.80
1919	391,328.09×0.23 =		109,590.91
Total	8,341,261.14	Total tax	6,660,279.71

1918, total tax	6,660,279.71
1919	1,771,705.10×0.824= 1,459,885.00
Difference in tax	5,200,394.71

COMMON CARRIER NOT ALLOWED—SPREAD OF AMORTIZATION

Tax reduction

1918	$156,965.85×0.824=	$129,339.86
1919	42,939.38×0.23 =	12,023.03
Total	199,905.23	141,362.89

COMMON CARRIER NOT ALLOWED—SPREAD OF AMORTIZATION—Continued

Note A				Note B			
Amortization allowed	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Amortization allowed	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed
Item 7, electric open hearth furnace plant for heavy gun forging	$944,895.31	$40,635.62	$904,209.69	Item 23, 20-ton electric furnace	$173,389.95	$2,956.37	$170,433.58
Item 8, temporary electric furnace	623.11	75.18	547.93	Item 25, soaking pit for electric furnace	101,157.75	3,256.14	97,901.61
				Item 34, extension to electric furnace department	40,305.28	3,173.66	37,131.62
Total			904,757.62	Total			305,466.81

ELGIN, JOLIET & EASTERN RAILWAY CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
Elgin, Joliet & Eastern R. R. Co. (including Chicago, Lake Shore & Eastern Ry. Co.)	$1,210,974.68	$2,369.22	$1,208,584.46				*Per cent*

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Elgin, Joliet & Eastern R. R. Co. (including Chicago, Lake Shore & Eastern Ry. Co.)	$1,008,679.23	$199,905.23			

UNION STEEL CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
Sept. 12, 1923							*Per cent*
Mercer plant, Classes I and II	$31,032.85	$17.86	$31,014.99	$27,276.98	$447.91	$26,829.07	100
Donora steel plant, Class II	1,302,670.39	2,457.28	1,300,213.11	1,267,238.28	26,496.46	1,272,741.82	----------
Donora wire plant, Class II	295,422.89	1,053.26	294,370.63	293,046.67	12,404.43	277,642.24	----------
Farrell wire plant, Class II	227,652.22	133.11	227,519.11	228,540.46	9,857.33	218,652.13	----------
Farrell steel plant, Class II	2,905,340.89	6,473.85	2,898,873.04	2,822,852.81	77,892.97	2,744,932.96	----------
Total	4,862,157.24	10,135.36	4,852,021.88	4,763,985.20	126,099.10	4,598,896.10	----------

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Sept. 12, 1923					
Mercer plant, Classes I and II	$26,829.07	$4,185.92	No change	$4,185.92	No change. (One salvage item.)
Donora steel plant, Class II	1,033,397.81	266,815.30	100 per cent	90,795.33	1923 production. (Includes $89,224.14 amortization on 1 salvage item.)
Donora wire plant, Class II	217,096.83	77,273.89	do	20,133.14	1923 production. (Includes $2,404.75 amortization on 5 salvage items.)
Farrell wire plant, Class II	239,554.03	87,996.08	do	14,256.16	1923 production. (Includes $4,489.18 amortization on 2 salvage items.)
Farrell steel plant, Class II	2,198,788.00	700,115.04	do	153,873.20	1923 production.
Total	[illegible]975,635.74	1,136,386.14		283,243.75	×0.524=$228,236.85 tax on proper allowance.

Amount allowed	$1,136,386.14
Proper allowance	283,243.75
Overallowance	847,142.39

SPREAD OF AMORTIZATION

	Allowed	
1918	$1,121,807.41×0.524=	$692,682.31
1919	4,578.73×0.28 =	1,282.04
Total allowed tax		693,891.35
		228,236.85
Difference in tax		665,654.50

LORAIN STEEL COMPANY

	Total costs, 1917-1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
April 14, 1923, Lorain Steel Co., Class II	$151, 106. 61	$103. 75	$161, 168. 61	$142, 696. 66	$4, 246. 83	$138, 499. 80	*Per cent* 96

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 14, 1923, Lorain Steel Co., Class II	$121, 368. 38	$39, 800. 23	100 per cent	$22, 668. 81	Production and prima facie evidence.

SPREAD OF AMORTIZATION

1918	$37, 158. 33×0. 324=	$36, 618. 45
1919	2, 641. 90×0. 28 =	739. 72
Allowance	39, 800. 22	31, 358. 19
Proper allowance	22, 688. 81×0. 824=	18, 679. 10
Over allowance	17, 131. 42	
Difference in tax		12, 679. 09

UNIVERSAL PORTLAND CEMENT CO.

	Total costs, 1917-1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
April 17, 1923, Universal Portland Cement Co., Class IV	$1, 799, 686. 20	$828. 42	$1, 798, 857. 78	$1, 794, 209. 44	$43, 697. 22	$1, 750, 512. 22	*Per cent* 100

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 17, 1923, Universal Portland Cement Co., Class IV	$1, 750, 512. 22	$48, 345. 56	100 per cent	$48, 345. 56	No change.

NATIONAL TUBE CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
Apr. 24, 1923							*Per cent*
National Tube Co.:							
Class I	$59,111.69	$643.30	$58,468.39				
Class II	15,451,504.80	35,637.69	15,415,867.11	$14,823,639.61	$302,404.41	$14,521,235.20	
Total	15,510,616.49	36,280.99	15,474,335.41	14,823,639.61	302,404.41	14,521,235.20	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Apr. 24, 1923					
National Tube Co.:					
Class I	$5,060.19	$53,418.11		$53,418.11	No change.
Class II	12,704,188.69	2,711,678.42		1,722,242.51	1923 production (includes $827,610.59 amortization at Christy Park, torpedo facilities).
Total	12,709,238.88	2,765,096.53		1,775,660.62	

SPREAD OF AMORTIZATION

1918	$2,613,422.53 × 0.834 =	$2,153,469.13
1919	151,674.00 × 0.28 =	42,468.72
Allowance	$2,765,096.53	
Tax		2,195,928.85
Proper allowance	1,775,660.62 × 0.834 =	1,463,144.35
Over allowance	989,435.91	
Difference in tax		732,784.53

AMERICAN SHEET & TIN PLATE CO. AND ASSOCIATED COMPANIES

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
American Sheet & Tin Plate Co.	$7,994,647.29	$5,719.76	$7,989,127.55				
Sharon Tin Plate Co.	2,132,557.74	212.63	2,132,345.11				
Elwood, Anderson & Lapelle R. R. Co.	2,951.46		2,951.46				
Total	10,130,356.49	5,932.37	10,124,424.12				

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
American Sheet & Tin Plate Co.	$3,125,474.53	$1,885,683.02		$1,885,683.02	Allowed on account of lack of information.
Sharon Tin Plate Co.	1,491,823.65	640,521.46		640,521.46	
Elwood, Anderson & Lapelle R. R. Co.	1,356.37	1,572.09		1,572.09	
Total	7,616,657.55	2,527,746.57		2,527,746.57	

SPREAD OF AMORTIZATION

1918	$2,054,101.68×0.824=	$1,703,819.77
1919	442,644.91×0.28 =	124,226.57
Total	2,527,746.57	1,828,046.34

EDGAR ZINC CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
April 20, 1923: Edgar Zinc Co.	$19,383.65	$290.10	$119,182.65	$10,360.34	$812.81	$9,547.53	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 20, 1922: Edgar Zinc Co	$78,655.68	$42,497.27	No change	$42,497.27	Allowed mostly salvage proposition.

SPREAD OF AMORTIZATION

1918	$42,463.37×0.824=	$34,989.23
1919	33.49×0.28 =	9.35
Total	42,497.27	34,989.58

AMERICAN STEEL & WIRE CO. AND SUBSIDIARY COMPANIES

	Total costs, 1917-1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
Jan. 30, 1924							*Per cent*
American Steel & Wire Co	$11,825,324.86	$39,152.68	$11,766,172.18	$11,120,974.12	$229,624.35	$10,891,339.27	
Donora Zinc Co	287,710.95	815.07	286,895.88	283,289.29	4,282.08	286,127.86	
Donora Southern R. R. Co	321,759.43	111.33	321,648.10	313,285.25	2,153.52	311,121.73	
Newburgh & South Shore Ry	865,714.52	370.49	865,344.03	720,059.10	38,154.31	751,904.79	
Total	13,300,509.76	60,449.57	13,240,060.19	12,467,708.46	274,204.71	12,193,503.75	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Jan. 30, 1924					
American Steel & Wire Co	$3,252,225.18	$3,833,947.00	Approximately 90 per cent.	$1,963,963.84	1923 production and prima facie evidence (insufficient data).
Donora Zinc Co	191,126.26	95,769.62	100 per cent	47,767.93	1923 production.
Donora Southern R. R. Co	239,571.42	82,076.67	do		Not allowed "Common carrier."
Newburgh & South Shore Ry	825,737.15	179,606.57	do		Do.
Total	9,348,660.05	3,391,402.16		2,011,734.76	

SPREAD OF AMORTIZATION

1918	$3,870,311.04×0.824=	$3,189,136.20
1919	21,089.13×0.28 =	5,904.96
Amortization allowed	3,891,400.16	
Tax on amortization allowed		3,195,041.26
Proper allowance	2,011,734.75	
Tax on proper allowance		1,657,669.44
Over allowance	1,879,665.40	
Difference in tax		1,537,371.81

H. C. FRICK COKE CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
H. C. Frick Coke Co.	$7,218,495.31	$5,332.81	$7,208,082.50	$6,641,730.34	$227,959.44	$6,313,770.99	*Per cent*

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
H. C. Frick Coke Co.	$5,752,843.37	$1,455,239.23		$894,311.60	1923 production.

SPREAD OF AMORTIZATION

1918	$1,442,123.47×0.824=	$1,188,133.74
1919	12,115.76×0.28 =	3,392.41
Amortization allowed		1,455,239.23
Tax		1,192,526.15
Proper allowance	894,311.60×0.824=	736,912.76
Overallowance		560,927.63
Difference in tax		455,613.39

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
T. C. I. & R. R. Co.:							
Class I	$497,999.88		$497,999.88				*Per cent*
Class II	6,212,076.06	$1,889.78	6,210,186.28	$5,752,547.12	$37,311.53	$5,715,235.60	
Total	6,710,075.94		6,708,186.16				
Tennessee Land Co., Class II	1,778,756.87		1,778,756.87	1,778,756.87		1,778,756.87	
Fairfield Steel Co.:							
Class I	1,166,328.70		1,166,328.70				
Class II	14,217,220.65	967,000.00	13,199,220.65	12,329,046.31	1,789.17	12,327,257.64	
Total	15,334,549.35	967,000.00	14,365,549.35				
Fairfield Utilities Co., Class II	23,729.39		23,729.39	23,729.39		23,729.39	
Birmingham Southern Railway, Class II	43,664.18		43,664.18	41,451.93	1,858.33	40,693.60	
Grand total	23,890,775.73	970,889.78	22,919,885.95				

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
T. C. I. & R. R. Co.:					
Class I	$78,857.85	$419,142.03	No change	$419,142.03	No change.
Class II	4,838,806.89	1,371,379.39	100 per cent	494,850.68	1923 production and prima facie evidence furnished by purchase of new facilities.
Total	4,917,664.74	1,790,521.42		913,992.71	
Tennessee Land Co., Class II	1,437,657.28	341,095.59		341,095.59	Allowed on account insufficient information to question.
Fairfield Steel Co.:					
Class I	412,618.13	753,710.57	No change	753,710.57	No change.
Class II	6,977,160.50	6,222,060.15	100 per cent	871,993.01	1923 production and prima facie evidence by purchase of new facilities.
Total	7,389,778.63	6,975,770.72		1,625,673.58	
Fairfield Utilities Co., Class II	18,983.51	4,745.88	100 per cent	3,060.58	Do.
Birmingham Southern Railway, Class II	32,492.38	11,181.30	100 per cent		Do.
Grand total	13,796,577.04	9,123,314.91		2,853,822.46	

AMORTIZATION ALLOWED

1918	$7,565,626.02×0.834=	$6,311,696.69
1919	1,577,678.86×0.28 =	441,769.59
Amounts allowed	9,123,314.91	6,699,266.18
Proper allowance	2,853,122.46×0.834=	2,379,268.71
Overallowance	6,269,492.45	
Difference in tax		4,319,974.47

CHICKASAW SHIP BUILDING CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
Chickasaw S. B. Co	$12,829,016.77		$12,829,016.77				

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Chickasaw S. B. Co	$3,479,385.88	$9,349,630.89	No change	$9,349,630.89	No change. Property practically discarded.

NOTE.—Mostly Class I facilities. Discarded Sept. 30, 1921.

HOSTETTER-CONNELLSVILLE COKE CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
April 19, 1923: Hostetter-Connellsville Coke Co	$51,136.99	$160.98	$50,976.01	$51,136.99	$3,930.84	$47,206.15	89

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 19, 1923: Hostetter-Connellsville Coke Co	$37,764.91	$13,211.10		$3,769.86	

SPREAD OF AMORTIZATION

1918	$13,211.10×0.824=	$10,886.95
Proper allowance	3,769.86×0.824=	3,106.36
Overallowance	9,441.24	
Difference in tax		7,779.59

UNITED STATES COAL & COKE CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
April 17, 1923, United States Coal & Coke Co	$7,068,356.78	$1,179.46	$7,057,177.32	$8,804,780.82	$11,299.78	$8,793,486.04	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 17, 1923, United States Coal & Coke Co	$6,412,467.01	$674,710.31		$391,297.42	Includes $97,601.94 allowance for salvage item, 1923 production, and prima facie evidence.

SPREAD OF AMORTIZATION

1918	$647,229.78×0.824=	$533,311.74
1919	26,880.53×0.23 =	7,526.55
Allowance	674,710.31	
Tax		541,338.29
Proper allowance	391,297.42×0.824=	322,469.97
Over allowance	283,412.89	
Difference in tax		218,868.32

UNITED STATES FUEL CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
April 19, 1923, United States Fuel Co	$1,790,987.29	$1,738.55	$1,789,248.74	$1,710,219.92	$34,398.99	$1,675,820.93	*Per cent*

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 19, 1923, United States Fuel Co	$1,401,427.42	$387,811.32		$130,115.04	Includes $16,687.23 allowance for salvage items.

SPREAD OF AMORTIZATION

1918	$379,077.99×0.824=	$312,360.26
1919	8,733.33×0.28 =	2,445.33
Allowance	387,811.32	
Tax		389,964.93
Proper allowance	130,115.04×0.824=	107,224.79
Over allowance	257,696.28	
Difference in tax		202,700.14

NATIONAL MINING CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
April 13, 1923, National Mining Co	$158,214.67	$434.39	$157,780.28	$158,214.70	* $6,853.37	$151,361.33	*Per cent*

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 13, 1923, National Mining Co	$147,871.79	$9,908.49	100 per cent	$9,906.49	No change.

SHARON COKE CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
April 14, 1923, Sharon Coke Co	$318,073.88	$1,415.33	$216,658.55		$13,253.34	$282,681.30	*Per cent*

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 14, 1923, Sharon Coke Co	$246,369.10	$70,289.45		$53,666.14	Includes $19,589.89 allowance for salvage items.

SPREAD OF AMORTIZATION

1918	$69,482.68×0.824=	$57,283.73
1919	806.77×0.28 =	225.90
Allowance	70,289.45	
Tax		57,479.63
Proper allowance	53,666.14×0.824=	44,230.90
Over allowance	16,623.31	
Difference in tax		13,248.73

REPUBLIC-CONNELLSVILLE COKE CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
April 13, 1923, Republic-Connellsville Coke Co	$225,960.37	$347.38	$225,602.99		$9,207.67	$211,771.04	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
April 13, 1923, Republic-Connellsville Coke Co	$70,289.45	$40,316.25		$17,688.61	Includes $3,856.66 allowance for salvage items.

SPREAD OF AMORTIZATION

1918	$87,651.90×0.824=	$31,025.17
1919	2,054.35×0.23 =	746.02
Allowance	40,316.25	
Tax		31,771.19
Proper allowance	17,688.62×3.834=	14,575.41
Over allowance	22,227.64	
Difference in tax		16,544.12

SHARON COAL & LIMESTONE CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
Apr. 14, 1923, Sharon Coal & Limestone Co	$42,414.42	$52.70	$42,360.72		$497.79	$39,119.33	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Apr. 14, 1923, Sharon Coal & Limestone Co	$37,513.99	$4,841.73		$4,841.73	No change.

UNITED SUPPLY CO. AND UNION SUPPLY CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
Apr. 14, 1923, United Supply Co. and Union Supply Co.	$347,213.96	$77.87	$147,198.39		$900.34	$146,315.62	

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Apr. 14, 1923, United Supply Co. and Union Supply Co.	$146,315.62	$822.77		$822.77	No change.

AMERICAN BRIDGE CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
American Bridge Co.	$3,702,722.78	$3,702,444.86	$3,909,277.92				

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
American Bridge Co.	$1,508,678.41	$2,400,599.51		$2,400,678.41	Allowed on account of lack of information. Allowance appears too large.

BESSEMER & LAKE ERIE R. R. CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
Bessemer & Lake Erie R. R. Co. Consists of 500 steel hopper freight cars only (paid for 1920).	$1,311,320.21	0.00	$1,311,320.21				

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Bessemer & Lake Erie R. R. Co. Consists of 500 steel hopper freight cars only (paid for 1920).	$1,089,444.83	$221,875.38		0.00	"Common carrier" disallowed.

SPREAD OF AMORTIZATION

	Reduction in tax
1918 (as allowed)	$221,875.38×0.824=$182,825.31

DULUTH, MISSABE & NORTHERN R. R. CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
							Per cent
Sept. 29, 1923, Duluth, Missabe & Northern R. R. Co.	$3,741,261.00	$1,504.43	$3,739,756.57				

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Sept. 29, 1923, Duluth, Missabe & Northern R. R. Co.	$2,705,386.13	$1,034,370.44		0.00	"Common carrier" disallowed.

SPREAD OF AMORTIZATION

1918	$886,052.22×0.824=	$712,612.06
1919	168,312.12×0.25 =	47,127.39
Total	1,054,370.44	760,739.45

MINNESOTA STEEL CO.

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (segregation)
March 17, 1923, Minnesota Steel Co. (Class II)	$2,288,694.30	$4,610.50	$2,284,073.80	$2,170,052.14	$54,414.00	$2,115,638.14	Per cent

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
March 17, 1923, Minnesota Steel Co. (Class II)	$1,411,858.60	$822,215.23	100 per cent	$118,435.65	1923 production and prima facie evidence given by purchase of new facilities.

SPREAD OF AMORTIZATION

1918	$822,215.20×0.824=	$677,505.22
Proper allowance	118,435.65×0.824=	97,590.98
Over allowance	703,779.54	579,914.24

SPECIAL NOTE.—Original report of unit engineer, Ira J. W. Van Schaick, who reports as of June 15, 1923: "The largest claim on which amortization is taken is the benzol plant." "The benzol plant was all in use and will continue to be indefinitely. It can not be dispensed with in any way. It will cost more to build now than when it was constructed. It would have to be built, if not already erected, to save the gas from the coke ovens and furnish it to the Morgan Park householders." "Amortization can not be allowed."

OLIVER IRON MINING CO. AND ASSOCIATED COMPANIES

	Total costs, 1917–1920	1917 depreciation	Total cost on which amortization is allowed	Replacement cost	Depreciation	Depreciation postwar replacement	Value in use (approximate)
Oliver Iron Mining Co. and associated companies (including Minnesota Iron Co., Lake Superior Consolidated Iron Mines, Shopin Mining Co., and Donora Mining Co.)	$3,883,474.43	$6,879.87	$3,876,594.56	$3,654,054.87	$56,728.80	$3,597,326.07	Per cent

	Residual value	Amortization allowed	Estimated proper value in use	Amortization allowance	Reason for change
Oliver Iron Mining Co. and associated companies (including Minnesota Iron Co., Lake Superior Consolidated Iron Mines, Shopin Mining Co., and Donora Mining Co.)	$3,059,057.14	$817,537.42	100 per cent	$279,268.49	1923 high production of pig iron.

Unit allowance	$817,537.42
Proper allowance	279,268.49
Over allowance	538,268.93

SPREAD OF AMORTIZATION

1918	$731,572.00×82.4=	$602,815.33
1919	85,965.42×28 =	24,070.32
As allowed	$17,527.42	
Reduction in tax		626,285.65
Change in tax, 1918	$279,268.49×82.4=	230,117.24
Unit allowance		626,285.65
Proper allowance		230,117.24
Over allowance		396,768.41

EXHIBIT B OF M

[Extract from the Iron Age, January 3, 1924]

New construction completed during 1923 and that under way as of January 1, 1924, by subsidiary manufacturing companies of United States Steel Corporation, is as follows:

CARNEGIE STEEL CO.

COMPLETED

Duquesne works: Reconstruction of two 75-ton furnaces at open-hearth plant No. 2; improved manipulator for 40-inch blooming mill and steam locomotive crane and grab bucket.

Homestead works: New charging floors, two charging machines and strengthening building at open-hearth plant No. 1; four charging machines for open-hearth plant No. 2; motor-driven tilting tables for 140-inch plate mill, and a 20,000,000 gallon centrifugal pump with motor drive in the main pump house.

Schoen steel wheel works: Wheel manipulator for mill No. 1, and two vertical car wheel turning and facing lathes for mill No. 1.

New Castle works: 1,300-ton hot metal mixer and extension to mixer building.

UNDER WAY

Edgar Thomson works: Two additional furnaces at open-hearth plant No. 1; 1,000-ton hot metal mixer for Bessemer metal in open-hearth plant No. 1; hot metal elevated railroad from blast furnace to Bessemer and open-hearth departments; equipping finishing end of No. 1 rail mill for rolling and handling sheet bars and new boiler house, 18,000-horsepower boilers and auxiliary equipment.

Duquesne works: Reconstruction of blast furnace No. 1 and stock yard; rebuilding four 75-ton furnaces at open-hearth plant No. 2; shipping building at 40-inch blooming mill.

Homestead works: Two 125-ton electric overhead traveling cranes and rearranging equipment at north end of open-hearth plant No. 2 building; modern mill tables and manipulator with scale removing equipment, at 30-inch slabbing mill, and eight 834-horsepower boilers and auxiliary equipment at 140-inch plate mill with steam line to 48-inch plate mill.

Carrie furnaces: Six turbo blowers with equipment at blast furnaces Nos. 1 to 5, and three 110-horsepower gas fired boilers at blast furnaces Nos. 1, 2, and 5.

Lucy furnaces: One pair blowing engines.

Isabella furnaces. 10-ton ore bridge and additions to ore stocking equipment.

Mingo works: Boiler house and feed water purifying plant and coke unloading dock, including power station.

New Castle works: New boiler house, 7,700-horsepower boilers and coal storing and handling facilities.

Ohio works: 3,000-kilowatt electric generator and gas engine.

Farrell works: Rebuilding three furnaces at open-hearth plant.

Clairton steel works: New boiler plants for steel works and blast furnaces, including boiler feedwater purifying plant.

Clairton by-product coke works: 366 additional by-product coke ovens, with facilities for tar and ammonium sulphate recovery, benzol plant, and gas booster station.

ILLINOIS STEEL CO.

COMPLETED

South works: 300-ton hot metal mixer at No. 2 open-hearth plant and electric motor drive for 90-inch plate mill.

UNDER WAY

South works: Improvements to slabbing mill and main slabbing mill engine.

Joliet works: Remodeling boiler house and modernizing boiler equipment at rod mills.

MINNESOTA STEEL CO.

COMPLETED

Duluth works: Rod and wire mill.

UNDER WAY

Duluth works: Remodeling blast furnace No. 1; two additional gas washers and enlarging washer building.

LORAIN STEEL CO.

COMPLETED

Johnstown works: Shop for building steel cars for mines and industries.

UNDER WAY

Johnstown Works: 3-ton Heroult electric furnace in open-hearth building; flask yard including 20-ton electric over-head traveling crane.

NATIONAL TUBE CO.

COMPLETED

Lorain works: Improvements to screening facilities at by-product coke plant; equipment for electrogalvanizing couplings; extension to galvanizing plant.

National works: Wet gas cleaning plant for stoves of blast furnaces Nos. 3 and 4; equipment for upsetting and finishing 6-inch drill pipe; continuous upsetting and threading unit for lap weld mill.

UNDER WAY

Gary works: Pipe mills, consisting of five butt weld mills, four lap weld mills and one seamless mill with auxiliary departments and shops.

Lorain works: New boiler house building, six 1,500-horsepower boilers and auxiliary facilities; 1,000-kilowatt motor generator set at blast furnace No. 3; additions to four hot blast stoves of blast furnace No. 3 and one stove of blast furnace No. 4; additional blast furnace gas engine with 3,300-kilowatt alternator.

National works: Five hot blast stoves for blast furnaces Nos. 3 and 4.

Ellwood works: Extension to main building, additional finishing machinery and relocating equipment at No. 1 hot mill.

AMERICAN STEEL & WIRE CO.

COMPLETED

Cuyahoga works: Extending annealing building and additional annealing equipment for flat rolled material.

Central furnaces and docks: New piers and strengthening runway of Hoover and Mason unloaders; 25-ton locomotive crane with turbo-generator set, magnet and ore bucket.

Consolidated works: New pot annealing building, two furnaces and 10-ton electric traveling crane.

Waukegan works: Billet conveyor in rod mill; additional patenting furnace and equipment.

Rankin works: Enlarging baker and extending wire mill.

Worcester, north works: Additional continuous wire drawing equipment; equipment for electrogalvanizing wire.

Worcester, south works: Equipment for manufacture of signal bonds.

UNDER WAY

Cuyahoga works: 3-bay extension to cold-rolling building and 5-ton electric traveling crane.

Newburgh steel works: Rebuilding No. 3 pit furnace.

Newburgh wire works: Modernizing and increasing capacity of pot annealing department.

By-product coke works: Water-cooling tower and recirculating system.

Central furnaces and docks: Rebuilding blast furnace A.

Salem works: New boiler house, four 225-horsepower boilers and auxiliary equipment.

DeKalb works: Extending nail mill building and installing nail galvanizing department.

AMERICAN SHEET & TIN PLATE CO.

COMPLETED

Dover works: Equipping galvanising plant to make flux finished sheets.
Vandergrift works: Modern heavy duty manipulator for blooming mill.
Mercer works: Continuous annealing furnace and building.

UNDER WAY

Cambridge works: Modernizing three hot-mill furnaces and stokers for four furnaces.
Dover works: 26-inch motor-driven bar shear with approach table and piler.
Laughlin works: 500-kilowatt turbo generator.
New Castle works: Coal-handling systems at hot mill, annealing furnaces, gas producers, tin and boiler houses.
Shenango works: One thousand five hundred-kilowatt turbo-generator and condenser in power house; mechanical doublers and shears for 30 hot mills.
Scottdale works: Twenty-eight-inch motor-driven bar shear with approach table and piler.
Farrell works: Mechanical doublers and shears for 20 hot mills; rebuilding 4 hot-mill furnaces and equipping with mechanical stokers.

TENNESSEE COAL, IRON & RAILROAD CO.

COMPLETED

Ensley works: Six 834-horsepower boilers for No. 1 steam plant; pulverising coal plant with handling and storage facilities; motor drive for 28-inch mill; new cooling towers at No. 2 power house; six cinder cars and pots for blast furnaces.
Central water works: Eight million gallons water recovery and cooling system.
Fairfield works: Eleven-inch merchant mill; third hot unit for the tie-plate finishing department.

UNDER WAY

Ensley works: Five 770-horsepower boilers for No. 1 steam plant; turbo-blower, condenser, and cooling tower for additional blowing capacity, at blast furnaces; additions to billet yard crane runway.
Fairfield works: Steel foundry; enlargement of finishing end of structural mill.

(Whereupon, at 12.05 o'clock p. m., the committee adjourned until to-morrow, Thursday, January 8, 1925, at 10.30 o'clock a. m.)