

Carter Coal Company and the men belonging to the United Mine Workers of America, the representatives of those men, recently entered into negotiations, which were successfully concluded. A contract was prepared and the men are operating under that contract. (347) The contract as I recall was negotiated by the Smokeless Board, although as to the exact title I may have it incorrectly stated, but that organization at any rate is representative of the Carter Coal Company as well as all the other producers in that district. The relationship between Carter Coal Company and the mine workers is governed by that contract. That contract was satisfactory to Carter Coal Company and it was to the other companies that accepted it. The contract is to run until April, 1937, as I recall. That contract fixes maximum hours [fol. 317] of labor and it also covers a scale of wages. It also provides that the mine employees shall be entitled to have their own checkweighmen and that they should not be required to live in company houses or trade at company stores. (348) That contract was negotiated by representatives of employees through collective bargaining. I do not know whether the provisions of that contract in so far as they have to do with maximum hours of labor were executed by more than two-thirds of the producers, by tonnage, throughout the United States. I do not know the percentages of miners or the number of operators involved. I only know that that agreement was sufficiently satisfactory to Carter Coal Company and to other companies in the district in which our mines are located, to be acceptable. I could not testify of my own knowledge as to whether or not that contract was executed on behalf of more than two-thirds by tonnage of the producers in my district. But I would hazard the assumption and say that to the best of my knowledge and belief the contract is applicable to substantially all of the coal companies in the districts in which it is operative. (349) I believe that in the area in which our mines are located all of the coal companies have the same kind of contract relationship with their employees that our company has. Shortly after or simultaneously with the promulgation of the NRA code an agreement was entered into between representatives of the United Mine Workers of America, representing our employees and various operators with [fol. 318] respect to the hours and wages set out in the code and the other conditions of employment agreed upon by the parties.

The NIRA code for the bituminous coal industry set up certain geographical divisions in the coal industry. (350) One of these divisions was known as Division No. 1 which embraced a substantial part of the tonnage produced in the United States. In Division No. 1 there were many coal mines producing different varieties of coal, which varieties are sized into different sizes. Those various sizes and varieties are marketed in different markets in what was termed during that period market areas or price areas. Compilations were prepared from time to time by certain organizations set up under the code tabulating those prices. I have seen such a tabulation. I did not myself count them but I have been told that one such tabulation covering the coals included in Division No. 1 included about 27,000 different items. I hazard a guess that if there were added to that the additional mines which have been included in price area No. 1 of the Code under the present Act, there would probably be as many as 40,000 in that one price area. I do not mean that there are 27,000 different sizes of coal or that run-of-mine coal is divided into 27,000 different sizes. (351) I tried to make clear this morning that in the case of Carter Coal Company the run-of-mine coal is usually screened into the sizes of coal that I showed to the Court. (Plaintiff's Exhibits Nos. 36-43.) The NIRA code did not attempt to classify as regards Carter Coal Company any more sizes than we produced. Of course, the NIRA classified many [fol. 319] different sizes and varieties of coal that the Carter Coal Company does not mine or produce.

(353) Carter Coal Company produces about 10,000 tons of coal a day. In keeping alive and in operation such a business there are a great many transactions taking place each day. There are a great many different sales made. The Corporation has made a number of sales and has made various contracts. I hope that it will not be necessary for me to put into the record here to make public each of those transactions. One of the reasons why I do not want the Corporation to become a member of the Code is that it will be obligated to disclose such information to its competitors. Many of those competitors are in this room. Many of the men who are heads of companies with which I am in daily competition are here. Many of the men are here who would be competing with me for these various pieces of business. So, if it is not necessary that I disclose each particular trans-

action I shall be glad. I shall be very glad to testify as to the general facts.

(355) By the Court:

When I speak of selling for less than cost I am not considering each ton of coal, but the average. That is the usual [fol. 320] practice in the industry. We refer to the cost of coal as being the average cost per ton. Of getting it all out. We have to sell some of the cheaper grades of coal at less than the average cost and other grades of coal at more. If some were not sold at above cost it would be only a matter of time until we would have to go out of business.

By Mr. Critchlow:

I could not tell you from my recollection what the average mine realization price *price* of the coal produced by Carter Coal Company has been by months since January 1, 1935. I could have that information compiled and also the operating cost by months during the same period. (357) I could have it compiled so as to include operating cost and selling price or expense items.

---

[fol. 321] PAUL H. JOHANSEN, another witness called on behalf of the plaintiff, being first duly sworn, testified and stated as follows:

Direct examination.

By Mr. Whitney:

(359) I am at 713 Mills Building, Washington, D. C. I am an auditor of freight accounts. I have been in that business for the past ten years. From 1925 to 1929 I was in business by myself in North Carolina. From 1929 to 1933 I was with the Interstate Traffic Company in the Mills Building. For the past two years, with the exception of a period of about ten months, I have been in business for myself. I have appeared as an expert witness as to freight rates before the Interstate Commerce Commission on numerous occasions. (360) I have had considerable experience in the manner in which the carriers prepare their rates for publication.

I have obtained a map from the Chairman of the Central Freight Association, Coal and Coke Committee, on which I have made some coloring. The districts indicated in red are the southern grouping, District No. 7, and the Carter Coal Company's mines are located in the Tug River group, in the lower part of the map. I have prepared four exhibits. First, a statement of "Freight rates from various coal-producing fields to Illinois, Indiana, Michigan points"; second, a statement entitled "Freight rates from various coal-producing fields to Ohio points; third, statement entitled [fol. 322] "Freight rates from various coal-producing fields to Lake Cargo points" and fourth, statement entitled "Comparison between coal fields and districts under code."

(361) Lake Cargo points are points on Lake Erie to which coal is shipped from various producing fields for trans-shipment by water to points in the United States and Canada. Cleveland is such a point. Taking Cleveland as an example, it is a fact that the rail freight rate to Cleveland for coal destined to points beyond Cleveland to be carried on the Lakes thereafter is less than the rail freight rate to Cleveland for coal designed for that point and not going beyond Cleveland. The term "lake cargo coal" denotes coal that is to be carried beyond Cleveland or beyond whatever port is concerned. There are points other than those contained in the statements that have differing rates in those same consuming markets. I have picked only the points that have a population of 25,000 people or over to which coal has been shipped or is now being shipped. The other rates are related to the rates included in the statements in such a fashion that in my opinion as a traffic expert these give generally a fair view of freight rates for coal from the districts in question to the consuming areas in question.

(362) I prepared the statement entitled "Comparison between coal fields and districts under code" to correlate the freight classification of districts with the Coal Conservation Act classification of districts. This tabulation shows [fol. 323] the coal-producing fields in alphabetical order and to the right is shown the districts under which they fall under the Bituminous Coal Code.

(363) The figures on the statements represent dollars and cents. They are on bituminous coal in carloads. They are the current rates and the emergency surcharges allowed by the Commission have not been added to them. These sur-

charges are in under emergency and the emergency period will expire on June 30, 1936. They changed the ratio between the various charges and they are by way of flat additions dependent upon the level of the rate itself, so that they are flat additions but in effect they are rough percentage additions.

(364) [Exhibits were then offered and received in evidence as follows: Plaintiff's Exhibit No. 53—Map; Plaintiff's Exhibit No. 54—Statement entitled "Freight rates from various coal-producing fields to Illinois, Indiana, Michigan points"; Plaintiff's Exhibit No. 55—Statement entitled "Freight rates from various coal-producing fields to Ohio points"; Plaintiff's Exhibit No. 56—Statement entitled "Freight rates from various coal-producing fields to Lake Cargo points"; Plaintiff's Exhibit No. 57—Statement entitled "Comparison between coal fields and districts under code."]

---

[fol. 324] (371) FREDERICK G. TRYON, witness called on behalf of the defendants, having been first duly sworn, testified as follows:

Direct examination.

By Mr Critchlow:

I work in the economics branch of the United States Bureau of Mines, and am called Principal Economist, assigned to duty in the Coal Division of that branch. I have been a student of the coal industry since 1917. My training is that of a mineral economist with supplementary studies of economical geology. My training was acquired at the University of Minnesota and at the Johns Hopkins University. I studied geology merely to get a background for the pursuit of inquiries into mineral economics, and to gain some knowledge of reserve conditions. I followed geology long enough to earn a very poor living as an oil company geologist, and to pass the assistant geologist examination of the United States Geological Survey, and to be appointed. (372) I was immediately assigned to work in the economic and statistical inquiry branches, and have been so engaged ever since. I have done no work of a technical character for the United States Government, either as a geologist

or as an engineer, although I have been in contact with technical men. In the narrow field of economic and statistical approach I have had unusual opportunity to study the coal industry of the United States, and of the world. I was assigned as junior assistant to the Committee on Coal Production of the Council of National Defense in 1917. Likewise, I was detailed to assist the statistician of the Geological Survey in charge of coal and coke, he later becoming Director of the Division of Statistics of the United States Fuel Administration. I was drawn into the army and posted at the War Department with instructions to watch fuel as a limiting factor in the conduct of the war, and was in frequent contact with the United States Fuel Administration at that time, learning much of its problems without in any sense being responsible for its success. I was sent overseas to General Headquarters, for a time, and then was detailed to the economic section of the American Peace Commission at Paris, and put to work studying the coal industry of the central powers with reference to the reparations section of the Treaty of Versailles.

(373) I was for a time secretary of the American Section of the Raw Materials Division of the Supreme Economic Council. Returning to the United States, I was appointed in the Statistical Unit of the United States Geological Survey, dealing with coal and coke, and shortly thereafter placed in charge of that unit, and have been associated with that work since, including the period since 1925 when it was transferred to the United States Bureau of Mines. During that time I have been on leave of absence a number of times. I was sent abroad as a delegate to the World Power Conference at London in 1924, and had occasion to spend some months studying the coal industry of [fol. 326] England, on the ground. I have also had opportunities to study the coal industry in Nova Scotia, Australia, and to go underground in all these countries. I was on leave of absence at the Brookings Institution on one or two tours of duty and took part in the preparation of their study on "America's Capacity to Produce," writing the mining section of that report. I was detailed for some months to the President's Committee on Recent Social Trends, and wrote the mining chapters of that report. I was attached to the President's Committee on Fuel Coal Distribution, set up by President Harding, during the 1922

strike of miners and took some part in the efforts to control distribution of coal at that time. I was statistical adviser to the United States Coal Commission of 1922-23, and edited its report. I have had occasion to write a large number of reports on the statistical economic trend of the coal industry for the United States Bureau of Mines and the Geological Survey. (374) I wrote and edited the volume called "What The Coal Commission Found", and another volume on "Mineral Economics" published by the Brookings Institution. I believe I have lectured on mineral economics at the University of Pennsylvania graduate school and the Robert Brookings graduate school. My approach has been throughout from the standpoint of a statistician and economist. I think I may fairly say that I have tried to make it an impartial approach. I do not own any coal company securities and have declined any offers of employment by coal companies or coal associations. I did not [fol. 327] happen to be connected with the National Recovery Administration and I have no connection with the present National Bituminous Coal Commission.

The Bureau of Mines has primary responsibilities in the field of accident prevention, promotion of health of miners, and in technological studies, in the attempt to reduce mine accidents and improve mine technology. Those I know nothing about. It likewise has an economics branch, which collects and publishes primary statistics of the supply and demand of mineral commodities. I work in the Coal Economics Division of that branch. Its function is to try to watch the flow of coal, the production, the consumption, the stocks, distribution, price movements. I do that currently on a scale sufficiently detailed, and at a rate sufficiently rapid to be of some service to buyers and sellers. (375) The unit also watches long-time trends of the industry in so far as they are recorded in the production, the operation of mines, and the mechanical equipment of mines; also, the volume of employment and working time. The entire work of the Bureau, of this branch of it in particular, is based on voluntary cooperation, and we cannot wisely or effectively go into controversial points, such as costs of production, investments, profits or wage rates. The data I have been asked to prepare and present on this occasion that deal with the subjects of costs, investments or wage

rates, are therefore necessarily drawn from other sources, but which I believe to be reliable.

It is the fundamental policy of the Bureau of Mines to [fol. 328] confine its work to scientific investigation and to fact-finding inquiries. This policy is inconsistent with expressing opinions. I have been instructed as a representative of the Bureau to prepare and submit in evidence the statistical portions of certain statements. I hope very much that the examination will not lead me beyond the facts of the statistical records or such other facts as are directly drawn from my experience and are clearly established. If I am called upon for any opinions or expressions of judgment it must be clearly understood that they represent my personal views only, and that they do not represent the position of the Bureau of Mines nor of any other members of the staff. I have not discussed the issues raised by this case with any other officials of the Bureau, and I do not know what their views may be.

(376) I should like to ask one consideration based on the strength of 17 years of government service, and that is that counsel will bear in mind that my usefulness to the industry depends on preserving an impartial and detached position and to confining the investigation so far as possible to what can be proved, recognizing the fact that the more I am drawn into expressing opinions on controversial matters the less useful my service in this primary capacity will be.

I have had prepared under my supervision certain charts and statements. [These were offered and received in evidence as follows: (379) Defendants' Exhibit No. 3—Chart [fol. 329] entitled "Bituminous coal production, realization, and mine capacity in the United States, 1899-1934"; Defendants' Exhibit No. 3-A—Statement entitled "Bituminous coal production, realization, and mine capacity in the United States, 1899-1934"; Defendants' Exhibit No. 4—Chart entitled "Trends of employment, working time, wage rates, and labor productivity, 1899-1934"; Defendants' Exhibit No. 4-A—Statement entitled "Trends of employment, working time, wage rates, and labor productivity, 1899-1934"; Defendants' Exhibit No. 5—Chart entitled "Average spot prices of bituminous coal, 1913-1931, by months"; (380) Defendants' Exhibit 5-A—Statement entitled "Average spot prices of bituminous coal, 1913-1931, by months"; Defendants' Exhibit No. 6—Chart entitled "Net income or



deficit of the bituminous coal industry, prior to deductions for tax, for specified years, 1917-1934''; Defendants' Exhibit No. 6-A—Statement entitled "Net income or deficit of the bituminous coal industry, prior to deductions for tax, for specified years, 1917-1934, according to Treasury Department data."']

The reason that bituminous coal is important is simple. American economic life has become completely dependent on energy, and bituminous coal is the principal source of energy. National consumption of energy has grown by leaps and bounds so that during the last 25 years we have consumed more fuel and more power than in all the previous history of the country, back to the days of earliest colonization. (381) There is no need to enumerate the ways in which heat and power have woven themselves into American economic life. Industrial uses and heat are quite as important as the keeping of buildings warm; and as for power, it has had an immense development. The dentist uses it in his little drill, and the street laborer uses it in his pneumatic punch. Nowhere in the world is this dependence on power and heat as great as it is in the United States. According to studies by Professor T. T. Read of Columbia University, more than 97% of the total output of work in the United States is now derived from mechanical power, and human power makes up less than 3%. The per capita use of mechanical power is far greater in the United States than in any other country. It is 1.6 times as great as in England, 2½ times as great as in Germany. (382) It is 11 times as great as Japan and 150 times as great as in a country like China. American life is becoming absolutely dependent upon a continuous flow of energy. Without it we would not only freeze but starve.

All but a small part of this flow of energy comes from fuel, and the largest part from bituminous coal. Electricity is merely a convenient way of applying energy. It is not the primary source of energy. The electric generator has to be driven either by fuel or falling water. Last year, 1934, our computations of the source of the total energy supply of the United States gave the following results: Water power supplied 9.3% of the national energy supply. [fol. 331] Natural gas supplied 8.7%, and oil, including that part which is used in driving automobiles and which included imported oil, supplied 28%. Coal of all kinds sup-

plied 54%. Of that 54%, 7.7% came from anthracite and 46.3% came from bituminous coal. Bituminous coal is, therefore, the largest single source of the energy budget of the United States.

(383) The share contributed by coal to the total energy supply has been declining, and the share of oil and natural gas and water power has been increasing, as everyone knows. While some of this increase in supply of oil is a direct displacement of coal, the important bulk of it goes into motor fuel to drive automobiles, where coal is hardly supposed to compete, or in other uses where coal can hardly compete. If one considers the familiar uses of coal in the generation of steam and heat, he finds that coal still dominates. Our computations indicate that in 1929 bituminous coal supplied 75% of all the primary energy used in manufacturing industries. That does not include purchased electricity produced, of course, in central electric stations. Bituminous coal supplied in 1934, 76% of all the fuel used by the public utilities, that is, the steam electric plants producing power for public use. Bituminous coal supplied, in 1933, 83.6% of all the energy used by the railroads for locomotive power.

[fol. 332] (384) The potentialities of water power are limited. Mr. Charles P. Steinmetz calculated, before his death, that if every rain drop falling on the United States should be transformed into power it would not supply the amount of energy already derived from coal. (388) In my own opinion, water power can never furnish more than a minor fraction of the energy requirements of the United States. The supplies of oil and gas are also clearly limited. It is probable that for the next few years there will be further increases in the use of liquid fuel, but geologists are generally agreed that present supplies cannot be maintained for more than a few decades.

(390) By the Court:

By "present supplies" I mean present rates of production. An inventory by the United States Geological Survey estimates the reserves at the end of 1933 of recoverable oil in known fields of the United States at 13,360,000,000 [fol. 333] barrels. If those were drawn on steadily at the 1933 rate of production, it would last not quite 15 years assuming, that is, that no new fields were discovered (391)

and that it were possible to recover all the oil in that time. Practically, it would be impossible to produce the full amount of these estimated reserves in even 25 years, because, as a field gets older, the amount of oil which can be taken out in the course of a year declines, and it is well recognized that new fields will be discovered and that improvements in the technology will increase recoveries beyond limits now practical, but the prospects of further discovery do not obscure the facts, as the Geological Survey reports, quoting:

“Petroleum reserves are irreplaceable, and each year’s production brings the nation nearer to an inadequate supply and ultimate exhaustion.”

That is quoted from “Geology and Occurrence of Petroleum in the United States” by the United States Geological Survey, printed in hearings before a subcommittee of the Committee on Interstate and Foreign Commerce, House of Representatives, 73rd Congress (Recess), on House Resolution 441, pp. 1080 to 1081.

Geologists Arnold and Kemnitzer, who are petroleum geologists of outstanding reputation, reviewing the natural resources, made the following estimate, on January 1, 1929. This was before the East Texas Field was discovered but they made allowance for future discoveries as they best anticipated they would be made. (392) Quoting from Arnold and Kemnitzer:

[fol. 334] “Petroleum in the United States and Possessions, 1931”

at pp. 51 and 52:

“The resources of natural crude oil in the United States are estimated to have been, on January 1, 1929, a little more than 50% developed, but less than 30% exhausted. At the rate wells were then being drilled, average full development would be reached in 30 years, at the end of which time would begin a long period of post-development production lasting 113 years, to practical exhaustion.”

It is a reasonable interpretation of Arnold and Kemnitzer’s position that they attach no exact value to these figures of the number of years that the supply would last.

The point that is important to bear in mind is that the supply is limited, that these geologists in particular, and the United States Geological Survey, hold that the total production will necessarily decline after a few decades. As petroleum diminishes in supply, or increases in cost, the burden of meeting the national requirements for energy will naturally be transferred more and more to coal. Methods are already in commercial use in Europe for the conversion of coal into motor fuel, and at much higher prices than prevail in the United States, but there is no question that if and when a shortage of petroleum forces a great advance in the price of crude oil and refined products in the United States, the necessary motor fuel and lubricant can be made from bituminous coal. (393) This will throw, before many decades, a greatly increased burden upon our coal supplies.

By Mr. Whitney:

[fol. 335] The increased demand will fall upon bituminous coal. The reserves of Pennsylvania anthracite are already 29% exhausted, and there is no prospect that anthracite production can increase materially over the past maximum attained during the war years. The soft coal mines, therefore, must continue to be our chief source of the flow of energy that is necessary to American industrial life.

By Mr. Critchlow:

Technical efficiency, in so far as can be measured in terms of statistical performance, is high in the bituminous coal industry of the United States, if not the highest in the world. The resources of bituminous coal are abundant and they are favorable to low-cost mining. I have made measurements of the average thickness of bed, the average dip of the seam, the depth of coverage, and other physical factors in the mines of the United States as compared with those of foreign countries, particularly of Great Britain. I imagine there would be no dispute among practical coal men that mining conditions are exceptionally favorable in this country. (394) The beds are relatively thick. They lie close to the surface in many places. They outcrop on almost every hillside, in portions of the Appalachian Field. They are exceptionally free, in com-

parison with European conditions, from faults or from igneous dikes, such as occur in parts of Great Britain. They are flat-lying. The roofs, on the whole, are favorable [fol. 336] to the application of machinery. On almost all physical factors, the natural conditions in coal deposits in the United States are among the most favorable in the world.

As further proof of the technical efficiency of the United States, from statistical sources we have computed the average output per man per day underground in the American bituminous mines and in those of Europe and of other countries. The output per man per day here is about three times that of Germany and nearly four times that of England. It is six times that of Belgium or Japan. The data, in terms of metric tons per man per day, are: For the United States bituminous mines, 4.9 tons per man; for Great Britain, 1.3 tons per man per day; for the Ruhr District of Germany, 1.6 tons per man per day; for France, 1.0 tons per man per day; for Belgium, 0.8. Furthermore, the efficiency of the American industry has been increasing. (395) The test of efficiency is the growth of the average output per man per day over a period of years. In 1890, according to the records of the Geological Survey, and of the Bureau of Mines, the tonnage per worker was 2.56 tons, and in 1932 this had increased to 5.22 tons. In other words, the output per man per day has more than doubled in the period since 1890, and the advance has been especially rapid in the last few years. The record is shown in the lower curve on the chart (Exhibit 4) in which the base line, for purposes of statistical convenience, represents two tons per man per day, and this line (indicating) represents four tons. The chart begins in 1899 and extends to 1934. This is the record of the gradual increase in the output per worker. The apparent decline in 1933 is partly a statistical fraction, and partly due to some shortening of hours and diminishing of overtime, as an effect of the NRA program. These figures are in terms of net tons per man per day, whereas the ones I cited in making the comparison with foreign countries were in metric tons per man, underground. (396) I do not see any physical obstacle in either the natural resources or the present physical and mechanical equipment of the mines, or any lack of managerial or engineering skill. As

far as those factors are concerned, I see no reason why this industry cannot be among the most prosperous of American businesses, yielding generous wages to employees and reasonable profits and reasonable rewards to management. The difficulties lie in the economic organization of this industry and of the competing industries producing other fuels.

Any evidence that I might give regarding economic conditions in the industry before the war is necessarily based on materials accumulated by the Geological Survey or the Bureau of Mines before I began serving with them, or on other documentary evidence from trustworthy sources, or on what I have been able to learn by experience and by conversation with men who lived through those days. My interpretation of the evidence that is at hand would be [fol. 338] that the present difficulties of the bituminous coal mining industry are not wholly new; that as far back as the statistical record can be pushed, there was a marked surplus of the mine capacity. This surplus of capacity came about from many causes. The resources were widespread. They had passed into the ownership of hundreds of thousands of farmers, and their farms, in turn, had been sold to a large number of land-holding companies. The owners desired to realize on their investment in the only way they could put it to use and that tended to open more mines than were needed. (397) The pressure of taxes and carrying charges on these land-holdings led to opening still more mines. Once the mines opened, the pressure of overhead, the tax burden and other factors drove the operator to produce all that he could possibly sell. Shifts in market demand occurred, throwing tonnage from one district to another. The change from beehive to by-product coking caused a transfer of a heavy load of business from some of the northern fields formerly producing beehive coke to the southern fields, in a position to supply coal for by-product coke in markets where by-product ovens were established. The expansion of the railroad net alone led to the opening of many new fields, and consequently of new mines. The freight rate and wage rate structures were, on the whole, so adjusted as to encourage development of the outlying districts. Finally, large-scale suspensions in the organized fields tended to cause consumers of coal, during the period of the suspen-

[fol. 339] sions, to seek sources of supply elsewhere, and were a factor in the development of additional capacity. All of these factors combined create the surplus of mine capacity.

The statistical record of capacity is shown on the chart (Exhibit No. 3). At the top of the chart is given the full-time capacity at 308 working days a year. (398) Below it is shown also the capacity assuming 280 days, a more conservative figure which was suggested some years ago by the coal department of the American Institute of Mining and Metallurgical Engineers. Both these records of capacity are calculated from the reports supplied by mine operators to the Bureau of Mines or in the earlier years, the Geological Survey. They show what the mines could produce if they worked a specified number of full-time days (308 days) with the same equipment and at the same rate of production that they actually obtained on the days that they were operating and the same labor force. In the calculation of the national total capacity, each mine is weighted in accordance with its tonnage and its importance. Turning to the figure of full-time capacity at 308 days, it is important to bear in mind that coal mines actually do try to operate 308 days a year, or they did before the coming of the NRA code. There is possibly some limitation as a result of the code.

The daily car loading records, kept over many years, show that in the typical districts, coal would be leaving the mines—some mines at least—on every one of 308 calendar days in [fol. 340] the working year. In some districts the working year is a bit longer, and in other districts a bit shorter than 308 days, on account of variations in observance of holidays, but the national average is very close to 308 days. There are quite a number of mines that succeed in operating 308 days a year. Many of them are captive mines. There are numerous instances where a mine has produced 308 days without a breakdown or without loss of time. (399) It is clear that all mines cannot manage to avoid mechanical breakdowns during the course of the year, and that some allowance has to be made for the possibility of falls of roof, accidents, failure of power supply, or some other mechanical difficulty that will shut down the mines. To test this point, I have made a study of the operating performance of 2,000 mines over a period of five years,

and it shows that on the average the typical mine will lose about nine days out of the year through failures of a mechanical character of one kind or another. 308 days less nine days is 299 days. On 299 days of the year the mines were there in this period, physically able to produce, and seeking a market. Even in the pre-war days, the soft coal mines of the country never approached 299 days a year. The actual average for the years 1890 down to 1914 was 213 days a year, so that out of this physically available 299 days they lost, on an average, 86 days. Of this 86 days average, an idleness of 34 days has to be set down as more or less unavoidable on account of the seasonal [fol. 341] character of demand. Consumers require more coal in winter than they do in summer. In the middle west the January peak may be twice as high as the off season trough. Obviously, until consumers change their buying habits, the industry has to maintain a capacity sufficient to take care of this peak. Over the country as a whole our studies indicate that the seasonal pattern of demand involves an average loss of 34 days a year (400) which cannot be avoided unless consumers are induced to change their buying habits. This fact does not make the loss of time any less serious to the worker or to the owner of the mine. The miner has to feed himself on the 34 days when the consumer is out of the market, and the operator has to continue to pay fixed charges and overhead. The operator is therefore under continuous pressure to try to sell that coal on the days when the market is dull, and the surplus continues to hang over the market. That is why coal prices usually fall off during the summer months.

The fact that the bituminous coal industry has to maintain a productive capacity sufficient to take care of the seasonal peak, is one of the great causes of the intense competition in the industry. In the pre-war days the industry never approached even the limitations that would be permitted by the seasonal pattern capacity. From the 299 days potential working time that is physically available if 34 days for seasonal loss is subtracted there remain 265 days in the year when, if capacity were balanced nicely and accurately with demand, the mines would be [fol. 342] able to work, but they have never succeeded in attaining to 265 days.



(401) During the pre-war days, in addition to the seasonal idleness, there was an average loss of 52 days a year, which has to be set down to simple excess of capacity. Some of this might be taken out in a car shortage or a labor dispute, but even if there had been no artificial interruption, the mines would have continued to be idle through lack of demand. The capacity was developed even then, not only beyond average requirements, but beyond peak seasonal requirements. As the chart shows, capacity continued to grow throughout the pre-war period. It grew slightly faster than demand. The total capacity, on full-time basis, has increased from 152,000,000 tons in 1890 to 279,000,000 tons in 1900 and 668,000,000 tons in 1914. The trend, in average working time, is shown in the lower portion of Defendants' Exhibit No. 4.

(407) The surplus of capacity which existed in pre-war days, had the effect of forcing intense competition among coal operators. It was relieved only occasionally by car shortage or a strike. Competition made it difficult for operators to maintain reasonable labor standards. There can be no doubt about the difficulty experienced by employers in maintaining such standards as then existed. During this period it was possible to get jobs in the mines and the rates of wages were sufficient to cause men to enter [fol. 343] employment because, as indicated by the chart (Defendants' Exhibit No. 4) the number of workers increased. (408) There was a rapid increase in the number of men working in the mines, but the employment was intermittent and the average man between 1890 and 1914 was offered about 217 days during the year. Accident rates in the mines were high, as they still are.

(409) The trend of the daily wage rates in the years before the war is indicated in Defendants' Exhibit No. 4. I have selected for plotting in this chart, and recorded in the exhibit, the union day wage scale for inside labor, the occupation of trackman, which is one of the skilled occupations, in the State of Illinois. In the year 1900 the day wage rate was \$2.28 and it increased slightly with one recession from 1904 to 1906 to \$2.85 a day before the World War. In the year 1913 the rate in effect for inside skilled labor was \$2.85 in Illinois. The mines of that state operated 189 days in that year. A rough indication of the

earnings of an average day man can be obtained by multiplying the daily rate by the average number of days worked by the mines. The answer is \$540 for the year's work, and that in a year when business in the coal industry on the whole was quite as good as normal. (410) The increase in the day wage rate from 1900 to 1914 amounted to 57¢.

There were strikes of labor or labor disputes as indicated by the statistical record maintained by the Geological Survey in the pre-war period. The basis of that record [fol. 344] was obtained from the answers to questions in operators' annual reports and the replies were obviously ex parte statements. An operator might report as a strike a labor dispute that was really a lockout. In later years I have followed the practice of indicating that these records represent losses of time on account of all labor disputes, including strikes, lockouts and suspensions. "Suspension" is the term used in the industry for a stoppage of work at the expiration of a wage contract between employers and employees when the two parties are unable to agree on the terms of renewal. During these pre-war years labor relations in the industry were unstable, as is indicated by the statistical record. Aside from petty strikes involving a single mine there were a number of major suspensions which shut down several fields in several states at one time and there were a number of strikes in districts arising over the attempt of the union to organize the non-union fields. (411) With reference to suspensions, the employers and the employees in the organized districts had adopted a system of two-year wage contracts which expired in the even years. It proved very difficult to negotiate the renewal of these contracts, largely because of the competitive pressure of one field against another field and particularly because of the competition of the non-union districts against the union districts. The lower chart in Defendants' Exhibit No. 4 shows in the black segment the amount of the working year for the country as a whole which was idle [fol. 345] on account of strikes, lockouts and suspensions. The incidence of labor disputes falls with curious regularity in even years. In the years between the negotiation of the wage contracts, when the contracts were in force, there was comparatively little interruption due to labor disputes.

That includes 1919 and 1927. It runs from 1899 to the last year of record which is 1933. It is an annual average for all mines in the country. In the districts that were directly affected by the labor dispute, the time lost would be much greater than the national average. During the odd years the loss on account of labor disputes was relatively small because most of the loss of time arose in the suspensions accompanying the termination of the wage agreements.

(412) The suspension of 1906 was one of the greatest disputes in the history of the American bituminous industry. In that year 211,394 men were technically out on strike or some other labor dispute and almost all of these are known to have been involved in the great suspension which began on April 1, which affected mines in 10 states. In Pennsylvania there were 59,593 men out during 1906 for an average of 66 working days. In Ohio there were 37,636 men out for 71 days. In Michigan there were 3,340 men out for 88 days. In Indiana 15,875 men were out for 63 days. In Illinois there were 49,792 men out for 58 days. In Iowa there were 7,969 men out for 28 days. In Missouri [fol. 346] there were 6,212 men out for 78 days. In Kansas there were 11,827 men out for 59 days. In Oklahoma there were 7,372 men out for 72 days. In Arkansas, a small coal producing state, there were 3,828 men out for 76 days. (413) In 1906 there were 478,000 men on the rolls of the industry. In the suspension of 1906 most of the men went out simultaneously so that the suspension was in effect not necessarily continuously over the entire period but simultaneously in 10 states. In 1908 there occurred another suspension which again affected several states. (414) There were involved 132,000 men in round numbers and it affected a number of states. The year 1909 was a year of peace. When the wage agreement expired in 1910 there occurred another large suspension in which 12 states were affected. In these 12 states there were in round numbers 211,000 men involved in labor disputes that year and their duration ranged from an average of 45 days working time in Pennsylvania to 157 days in Missouri. (415) There were lesser suspensions in 1912 and 1914. The statistics which have been cited relate to what the industry terms "suspensions" rather than strikes. The wage contract had expired and the parties were unable to agree on the terms of re-

newal at some time during this period. The record shows a different type of dispute occurring in connection with attempts to organize the non-union fields. These strikes for recognition instead of affecting a number of states simultaneously, generally affected one field at a time. (416) In 1902 the record shows such a strike or group of strikes in southern West Virginia. In that year 18,129 men were reported by operators as being on strike for an average of 75 days. In Alabama two strikes of local importance occurred and 6,059 men were out for an average of 23 days. [fol. 347] In 1903 there was again a strike in Alabama involving 7,319 men for 32 days. The other significant strikes of this type, involving an effort to organize a non-union area during this period, included a dispute in Colorado from 1903 to 1904 and a dispute in Alabama in 1904. In 1912 and 1913 there occurred a strike for recognition of the union in the Paint Creek and Cabin Creek districts of the Kanawha Valley of West Virginia which was accompanied by bloodshed and declaration of martial law and led to an investigation by the United States Senate. (417) The strike in Colorado in 1913 and 1914 was accompanied by calling out the militia and the so-called Ludlow massacre, leading to the intervention of Federal troops and another Congressional investigation.

(418) I have personal knowledge and experience with respect to the situation during the war. The war resulted in a shortage of coal and a marked increase in price. The average spot price f. o. b. mines rose from \$1.30 a ton in August, 1916, to \$4.18 a ton in February, 1917. These data are shown in Defendants' Exhibit No. 5 showing the average spot price of bituminous coal in each month from 1913 to 1931. Spot price represents sales on the open or free market as opposed to sales under contract. At any one time a large fraction of the output of coal will be moving on contract, the proportion of spot and of contract varying from field to field and from time to time. It is commonly said in the industry that approximately 25% of the tonnage moves on the spot market and 75% of the tonnage moves [fol. 348] on the contract market. These figures are based upon trade journal quotations taken from the best and most useful of the trade journals, including Coal Age and Black Diamond. It is necessary to rely upon trade journal quotations for the measurement of spot price fluctuations because it is very difficult to obtain information of an ade-

quate character in any other way. (419) The trade journal correspondent visits both the buyer and the seller in the field and matches up what both tell him. On the whole, spot price quotations from trade journals tend to be slightly above the market, if anything, in periods of depression because of the reluctance of the operator to disclose the full extent to which prices have been reduced. Spot prices tend to rise very much above contract prices at times of acute shortage and tend to fall somewhat below contract prices during periods of dull market. The operator's average realization for the year would be a composite of his spot business and his contract business. The average realization or average value per ton f. o. b. mine is shown in Defendants' Exhibit No. 3 and the accompanying table.

The primary cause of the so-called coal shortage during the war period was congestion of railway transportation. At no time during the war was there any lack of physical mine capacity and only for a brief period in the fall of 1917 did labor disputes exercise a serious restraining influence on the *the* national output of coal. (420) Coal mines are dependent upon continuous flow of cars for f. o. b. at [fol. 349] mine in order that the operator can ship his product. Even at the present time, when motor-truck traffic has largely increased, only about 4.6% of the total output of coal is handled in trucks and that part which is sold commercially moves almost entirely in railroad cars. During the war, a number of factors combined to create a congestion of transportation and to prevent the railroads from delivering to the mines what cars they needed to fill their orders. In part, the breakdown of railroad transportation was due to increased volume of business pouring into the United States for the war orders of the Allies. These dealt largely in heavy industry products, involving a large consumption of coal and there was an increase from 500,000,000 tons demand in 1916 to 550,000,000 tons demand in 1917, and to an all-time peak of 579,000,000 tons in 1918. This increase threw an increased burden on the railroads. At the same time, other commodities were flowing in increasing volume. The traffic congestion was especially severe in Northeastern United States where the munitions contracts and heavy coal-consuming industries were located.

At the same time, the price had increased in the way indicated in Defendants' Exhibit No. 5. This led to the

opening of more than 1,000 new mines. In the year 1916 there were 5,726 commercial bituminous coal mines in operation, not including the country coal banks. In 1917 the number had jumped to 6,979. The increase in the number of mines added to the burden on the railroads because it [fol. 350] was necessary to place cars at a larger number of points of origin.

(421) I was attached to the Committee on Coal Production, Council of National Defense, which attempted to handle the problem during the early months of the war. Later I was detailed to assist the statistician in charge of coal in the United States Geological Survey (422) who was at the same time functioning as the Chief Statistician of the Fuel Administration. The Committee on Coal Production did what it could to take care of urgent needs by granting priorities, sending coal which was available to those who had the most urgent need for it. They attempted to control prices by voluntary agreement of producers with the Secretary of the Interior. This proved unsatisfactory to the consuming interests and consumers induced Congress to include in the Lever Act a provision authorizing the President to fix prices for coal f. o. b. mines and to control distribution. The President set the prices August 23, 1917. The Fuel Administration assumed office September 1, 1917. The program ultimately adopted by the Fuel Administration was primarily one of saving coal transportation, thereby making it possible for the railroads to handle the increased demands of consumers for coal and at the same time the other burdens of traffic. As the problem was one of cutting down the number of car miles to be handled by the railroads as far as possible, the country was divided into 13 consuming zones. The coal fields were divided into 27 [fol. 351] producing districts. A budget was set up allotting to each district certain tonnages to move to each consuming area. (423) The general technique of those zones lay in warping toward the East as far as possible the supply of coal arising from the western fields and making available for the eastern markets the coals that were produced in the East. Certain eastern coals were zoned out of the middle western markets in order to cut down the length of haul and increase the turn around of cars and relieve the railroads, thereby increasing the total volume of coal traffic that could be handled. Exceptional cases were taken care of by a permit system, so that a by-product

coke plant in Illinois might receive Pocahontas coal when other consumers, who did not require it in Illinois and could get along with the local coals mined in Illinois and Indiana, were not permitted to have a special permit. The net result of this regulation was to make it possible for the railroads to handle the war traffic. The total output of bituminous coal rose to 12,000,000 tons or more a week during the middle of 1918. On the day of the armistice consumers had been supplied with stocks of 63,000,000 tons of coal which was twice any preceding known stock, and quite sufficient to carry them through a war of indefinite duration.

(424) From the year 1919 to the year 1923 there was an enormous increase in the productive capacity of coal. The capacity increased far in excess of any increase in requirements because in the period of shortage it drove up [fol. 352] prices to heights and made coal mining a highly profitable business during two distinct periods. That led to the opening of more thousands of mines and to an extension of those mines which were in operation.

(425) By the Court:

The line of 1918 in Exhibit 3 shows that the production was 579,000,000 tons. The figure \$2.58 is the average price per ton in the year 1918.

By Mr. Critchlow:

The increase in capacity was a reflection of the very great increase in price. The average value per ton rose to approximately \$3.75 during the year 1920 because of the runaway market which occurred that year. The price was again high in the year 1922 in connection with the great strike and the further difficulties at that time. It was this increase in price which led to the opening of thousands of new mines, and to an extension of capacity of mines already in operation, and which brought about an inflation of the total mining capacity as of the year 1923 to 970,000,000 tons as against a demand in that year that would represent 560,000,000 tons. (426) There was an acute shortage of coal in the United States in 1919 and 1920 and shortage began with the strike effective November 1, 1919. Other factors continued to make the market disturbed and the shortage persisted until the late fall of 1920 and early part of 1921. The Federal Government, when the strike broke

on November 1, 1919, invoked the powers of the Lever Act. [fol. 353] The Federal Government restored the regulations of the United States Fuel Administration under the Lever Act, and put into effect the schedule of prices which had been fixed during the war, delegated to a central coal committee, and in the face of the breakdown of the railroads it forced the Fuel Administrator to distribute coal, and he took possession of what coal was on wheels and proceeded to distribute it to the consumers most in need. At the peak there were 415,000 men on strike. These men worked in 22 states. The strike lasted approximately 6 weeks being settled on December 16.

(427) In the week before the strike, consumers had been purchasing 13,300,000 tons of coal, in a last minute effort to build up their reserves. In the first week of the strike the output was 3,600,000 tons, and it rose slightly thereafter. At no time during the strike did it exceed approximately 5,000,000 tons a week which was entirely insufficient to meet the current consumption. The consumer was protected with respect to price by the reinstatement of the war-time Fuel Administration prices. Many consumers found it difficult to get coal. Toward the end of the strike industrial plants along the Atlantic seaboard began to shut down and schools in New York and elsewhere were closed and the settlement of the strike became absolutely necessary.

There were other causes for the shortage than the strike. The shortage lasted from the beginning of the strike to the end of 1920, in all some 15 or 16 months. After the strike [fol. 354] had been settled but before consumers had succeeded in rebuilding their customary stocks another cause of shortage appeared. There was an outlaw strike of railway switchmen which began April 1, 1920 and it congested the terminals of the principal coal-carrying railroads and coal delivering railroads ((428) in the area north of the Ohio and Potomac Rivers, the great industrial center of the United States. That led to an acute shortage of cars at the mine which lasted in its sharpest form for two or three months. At the same time there was another cause of shortage. The British Government had found it necessary to place a limitation on customary exports from the United Kingdom. As Great Britain was the chief supplier of the world's export trade, this had the effect of creating an extremely active demand for the export of American



coal. These three factors acted in combination. Their result was to drive up spot prices of coal to an average for the United States at the peak of \$9.51 a ton. Along the Eastern Seaboard where the shortage was greatest and the demand most important, sales of \$20 were reported. The average spot price of Pocahontas coal, according to trade Journals in the month of August was \$12.90. The average price of Somerset mine-run coal was \$11.97.

(429) I should like to add in the interest of clarity and justice to coal operators that these prices were not obtained by all shippers and the average sales realization for the year, contract and spot business, for the country as a whole, was \$3.75. This was a very handsome sales realization but was less than the average spot price sales for the year.

There was a coal shortage during the years 1922 and 1923, caused by the great suspension affecting all union mines and the non-union mines in a number of districts in the bituminous coal fields and a simultaneous suspension affecting the anthracite mines. In this strike, 460,000 bituminous miners went out and 73% of the productive capacity of the bituminous coal fields was shut down. At the same time, 142,000 anthracite miners went out. The strike began on April 1, 1922 and lasted officially in all districts until August 16, when there was signed the wage agreement at Cleveland. Thereafter, other districts accepted the agreement and most of the men were back at work in September. (430) The effects of this strike were accentuated by a simultaneous walkout of the railway shop men whose strike began on July 1, 1922 and created a further shortage of cars in the non-union fields and a slowing up of the movement of coal out of the southern districts over the southern railroads. The two forces combined to produce a shortage in that year and resulted in an average spot price f. o. b. mines at the peak of approximately \$6 a ton. This shortage had the effect frequently of compelling the consumer to accept dirty or impure coal which he found difficult to use. It compelled him to accept coal from unaccustomed sources of supply which was not always suitable to his requirements. There were numerous engine failures on railroads as a result of inferior coal which they [fol. 356] were compelled to utilize. Consumers had to put in heavy stocks, in anticipation of shortage because a probable strike was known for some weeks in advance. Stocks

at the beginning of the strike in 1922 were approximately 60,000,000 tons which is perhaps 30,000,000 above what it might have been had there been no strike in sight at the time. The principal cause of complaint by the consumer was increase in price. (431) The consumer did have to pay an increase. There is an official record in an investigation by the Interstate Commerce Commission of the increase in price of railroad fuel in the year 1920 (Vol. 61 of Interstate Commerce Commission reports, p. 763) showing the average cost of bituminous coal purchased by the carriers per net ton at the mine on the contract market to have increased from \$2.56 a ton in 1919 to \$3.22 a ton in 1920. The average cost per net ton purchased on the spot market which was the market reflecting the greatest increase in price rose from \$2.83 a ton in 1919 to \$4.53 in 1920. The shortage was most acute in the region served by the New England railroads.

(432) The developed capacity of mines increased from 730,000,000 tons in 1918 to approximately 970,000,000 tons in 1923. This was accompanied by an increase in the number of mines as indicated in the curve on Defendants' Exhibit No. 4. The number of mines rose from approximately 8,200 in 1918 to 9,330 in 1923. The opening of these new mines and the extension of existing mines led to the recruiting of a large number of men. The number employed [fol. 357] rose from 615,000 in 1918 to 705,000 in 1923. In 1923 the mines were in operation an average of 179 days. (433) The wage rate increased to \$7.50 a day in fields in the Illinois district which was roughly typical of all the organized fields. The increase became effective in August of 1920.

In 1920, use was made of the powers of the Interstate Commerce Commission under the Transportation Act to declare priorities in the movement of coal. Those were in part geographical priorities to facilitate shipment of coal to areas of the country that were in particular need and in part consumer classification priorities directing the shipment of coal to those branches of consumption which it was felt were in particular need. During the strike of 1922 another attempt was made to utilize priority powers of the Interstate Commerce Commission at this time associated with an attempt to negotiate voluntary agreements to restrain prices f. o. b. mines. A presidential fuel distribution committee was set up to advise the Interstate Com-

merce Commission in the application of priority powers. (434) In September of 1922, an Act of Congress was passed known as the Federal Fuel Distributor Act of 1922 which was intended to validate the procedure used prior to that time by the Interstate Commerce Commission and to advise the Commission as to which areas of the country and which branches of consumption were in particular need. In 1920 the Indiana Legislature passed a special food and fuel commission act setting up a commission and instructing it to set [fol. 358] maximum prices on coal produced in the State of Indiana for intrastate shipment to consumers in Indiana and authorizing and directing the Commission to distribute fuel at this maximum price to domestic consumers and to other classifications of consumers in particular need.

The law creating the United States Coal Commission became effective on September 22, 1922, and the appointment was made soon thereafter. (436) On Defendants' Exhibit No. 3 the fluctuations from year to year in the curve of production represent primarily the ups and downs of the demand for coal as it is affected by the conditions of general business. In some years the production is not exactly equivalent to consumption because of changes in stocks. (437) In a year like 1919 there may be a considerable draft upon storage in the hands of consumers that does not make it necessary to produce quite as much as the yearly consumption, but if one were to plot the consumption curve alongside the production curve, he would find that it was substantially the same, with the exception of 1919, 1922 and 1923. In 1919 the effect of the great strike of 1919 was to deplete the consumers' stock and consumption in that year was greater than production. In 1922 there was a similar effect. Consumption was greater than production and production was actually curtailed by the strike. In 1923 there were some additions to storage so that consumption was less than there indicated. In the main, the movements up [fol. 359] and down reflect the ebb and flow of business in the fuel-using industries.

The reasons for the change in the general trend of demand which is so noticeable after 1918 are as follows: Prior to 1918 demand had been increasing steadily at a rate averaging 13,000,000 tons a year. Thereafter, it flattens off, and at no time since the war has the demand actually reached the war peak. The first factor was a change in the fuel-using industries themselves, particularly

iron and steel. As the country matured in its economic development, there was a tendency to pass from the production of crude materials, like crude iron and steel products, to more fabricated materials, and there was also going on in the iron and steel industry a substitution of scrap for virgin pig iron. (438) The result was that while formerly the demand for coal in the manufacture of coke, and consequently of iron and steel, had been growing very rapidly, it now began to flatten off. The iron furnaces were supplemented by the flow of scrap coming into the steel mills. Not so much coke was needed and not so much coal was needed. That is one of the major causes of the flattening of demand. This is of importance because the iron and steel industry, next to the railroads, was the largest single consumer of coal.

The second factor was fuel efficiency which had been improving since the first invention of the steam engine. Along about the time of the war fuel economy became an organized movement. The lead was taken by the electric utilities. It was stimulated by the high prices of fuel, associated with war. The reduction in the unit consumption of fuel which has been accomplished by the fuel engineers in the period since the war is notable. With the steam railroads, from 1919 down to the end of 1933, the reduction in the average requirement to move 1,000 gross ton miles of freight was 28.8%. In the electric power plants the reduction in the amount required to generate one kilowatt hour of power was 53% since the war. In the iron and steel blast furnaces the reduction in the amount of coking coal necessary to smelt one ton of pig iron was 19.6%. In the meantime the by-product oven was saving great quantities of fuel that had formerly been wasted out of the beehive coke ovens, and that saving turns out to be approximately 19% of the total fuel input of the by-product oven. (439) Averaging together all branches of industry and transportation, it is safe to say that the economies effected since the war are between 20% and 30%. In my judgment, that is the largest single factor in the slowing down of the former growth of coal demand.

A third factor was the competition of other fuels and of water power. The Federal water power act, passed in 1920, had opened a lot of new power sites to public development and there was rapid development. Oil and gas continued to increase in production. Probably the greater

part of the oil and gas that have been produced during the last decade has in no sense come into direct competition with coal. Much of it is either used in the field for the pro-[fol. 361] duction operations, drilling the wells and pumping them, or is used out on the Pacific Coast, where coal could not compete, or is refined and goes into lubricants, with which coal could not very well compete. Also, it goes into gasoline which, at anything like present price levels, coal cannot make. Only a minor fraction of the total increase of the production of oil and gas capacity was directly competitive with bituminous coal, but every coal man knows that it has been a factor and that business has been lost both to fuel oil and to natural gas. The net result of these changes was to convert an industry that had for 100 years been used to a steadily growing demand, and had based all its plans and expectations on a growing demand, into an industry that was faced with a stationary demand, and that tended to bring about a very difficult readjustment.

(440) The fact that the demand had stopped growing meant that the tremendous increase in capacity which had taken place during the war was now clearly not needed. Beginning in 1924, the causes of shortage which had hitherto prevented the mines from producing in a period of shortage were eliminated. The car shortage largely disappeared on the railroads through improvements in railroad transportation. The signature of the three year wage agreement between the miners' union and the operators eliminated the prospect of strike for three years. Under those conditions, there was nothing present to prevent the surplus capacity which had been created in the shortage [fol. 362] years from exerting its full effects on the market. The capacity, being 970,000,000 tons, and demand stabilized at around 530,000,000 tons, was so clearly out of balance that a long and very difficult liquidation became inevitable. That has had the effect of intensifying competition and of putting great pressure upon prices and wages.

In 1926 the industry benefitted by two outside circumstances which threw it extra business. Late in the fall of 1925, and continuing through the early months of 1926, the anthracite miners of the United States were on suspension. (441) This lasted about 5 months and a large volume of tonnage which was normally supplied by anthracite was transferred to bituminous coal. Later in 1926, the

British miners went on strike and were out for perhaps nine months. The shortage in the world's export trade created by the withdrawal of British coal during that period threw extra business to American shippers who could participate in the export trade. Those two factors accounted for much of the increase in tonnage experienced in 1926 and temporarily stiffened prices. The effects of this combination of the anthracite strike and British miners' strike can be seen in the record of spot prices for the year. In Defendants' Exhibit No. 5 it appears that in the fall of 1926 spot prices sprang from a level of about \$2 a ton to \$3.20 a ton for a brief period.

The effect of the deflation I have mentioned was a very drastic liquidation of both mines and plant capacity. The [fol. 363] number of operating mines between 1923 and 1932 fell off from 9,331 to 5,427. This is indicated in the top curve on Defendants' Exhibit No. 4. These properties are commercial mines producing 1,000 tons a year or more. Some of this reduction might be attributed to the effects of the depression of general business. (442) Even if one compares the number of mines operating in 1923 with the number operating in 1930 he finds that there is a net reduction of 3,440 mines for those years. This net decline does not measure the total number of mines that have been abandoned or otherwise forced out of business, being merely the net change in those years.

In the meantime, there had come into existence a very considerable number of small trucking mines utilizing hard roads and motor transport. Mr. Newell G. Alford, a mining engineer, in a paper published in the Transactions of the American Institute of Mining Engineers, presents a study of the records of individual mines on the books of the state mine inspectors and treats the individual cases, 4,800 properties or more, which had been forced out of business since 1923, and concludes that exhaustion of the coal accounted for a very small part of this reduction. There were corresponding effects upon the plant capacity in operation. The total capacity declined from 970,000,000 tons to 770,000,000 tons in 1929, being a reduction of 200,000,000 tons. That, again, does not measure the full extent of the deflation. Meanwhile, a number of new mines had come into existence and the old mines had expanded their [fol. 364] production. Out of these several thousand mines

that have been closed down since the depression began in the bituminous coal business in 1923, there are large numbers that are now idle but not finally abandoned. (443) The Bureau of Mines made an effort to determine the importance of these and as of 1930 we found that there were on our books 1,359 mines of this class, with a capacity when they operated of 130,000,000 tons a year. The evidence that we have been able to collect on the subject indicates that they include an appreciable number of properties that, if there were any sustained advance in price, would come back into the market. They include also many hundreds of mines in all states of collapse and disrepair which nothing but a world war would ever bring back into production. No one can tell how far shut down mines, not formally abandoned, ought to be reckoned with in the production capacity of the industry. If they were all included, the total capacity in 1930 would have been 770,000,000 tons plus 130,000,000 tons. Most of that is known to be so far out of repair and so hopelessly damaged by the long shut-down that it could not come back. Some part of it possibly could. The existence of this idle capacity in shut down mines is a further reason for the long-continued depression in the coal market and one more factor tending to intensify the competition and beat down prices with the consequent results. (444) It is important also to know how far these shut-down mines—1356 in 1930—are still in the picture. I have just had a test made of three of the principal states and we find that in those three states, as of 1930, there were 291 mines shut down but not permanently abandoned of which 203 have since been dropped from our records, the [fol. 365] owners considering them permanently withdrawn. There remain 88 in these three states which conceivably might go back into production, and which go, among other factors, to create the difficult competitive situation that the industry faces.

The effect of these conditions has been that a large profit during prosperous years has been transformed into a heavy and continuing loss as evidenced by the income tax returns made available by the United States Treasury. The Treasury data are shown on the lower portion of the chart in Defendants' Exhibit No. 3, the years of profits being shown in black and of deficit in red, and the data themselves being in a table. (Def. Ex. 6-A). (445) The Treasury data avail-

able for the years 1917 to 1921 are not entirely complete and the profit showing for those years is therefore somewhat less than the industry as a whole actually enjoyed. They show that in the year 1920 the excess of net income of the corporations making an income over the deficits of those that lost money was \$249,000,000 odd. There was a net credit balance also in the year 1921 when business in general in the United States was depressed. Data are lacking for the intervening years until 1925. (446) The question marks appearing on Defendants' Exhibit No. 3 for the years 1922, 1923, 1924, 1926 and 1927 are to indicate that the Treasury had published no separate data regarding bituminous coal for those years, but in those years the Treasury combined anthracite and bituminous and the combined showing of the two industries for the year 1922 shows a net of \$70,000,000; in 1923 a net of \$67,000,000.

By the Court:

[fol. 366] I mean an excess of net income for those corporations that reported net income over the deficits of those corporations that reported deficits. From that and the fact that spot prices and sales realizations were relatively higher in 1922 and 1923, it seems an inescapable conclusion that if the data for bituminous coal had been separated from anthracite they would have shown some excess of income over deficit in those two years. In 1924, the combined record for anthracite and bituminous shows an excess of deficits over incomes of \$49,000,000. That, plus the drastic liquidation in the number of mines and capacity in 1924 and with falling prices in that year, appears to indicate that all losses for the combined group could not possibly have been due to anthracite.

By Mr. Critchlow:

I do not happen to have the data here with reference to 1926 and 1927. (See Def. Ex. 49.)

(449) From the period 1923 to 1933 wage rates have been declining over the period as a whole. The extent of the decline and the dates at which it took place are indicated in the charts of wage rates and earnings given in Defendants' Exhibit No. 4. (450) The exhibit shows three different indicators of the trend of miners' wages. This does not purport to show the annual earnings of miners but



merely daily rates or daily earnings. The first of the indicators selected to show what the trend has been is the Illinois [fol. 367] nois day scale for skilled inside labor to which reference has already been made. It is indicated by the dotted line. As the Illinois district was completely organized throughout this period, wage rates in that field have changed by sudden steps at periods when there was a change in the wage agreement. As of 1923, the day rate was \$7.50, the point which it had reached by the wage agreements in August, 1920. The miners' union in that area remained strong enough to hold it at the \$7.50 level down to late in 1928, at which time, due to the competition of other districts and particularly of the non-union fields, it was forced down to \$6.10 where it remained for a period ending in 1932 and then dropped to \$5. The second indicator of the trend of wages, selected merely to indicate a change from time to time, is the average earnings of all day men in the State of West Virginia, covered by the periodic wage surveys of the United States Bureau of Labor Statistics. This Bureau cannot attempt to cover all mines but has selected a sample covering a considerable number of mines in each state and at intervals of two years it makes a close examination of the books of those mines to find what has been the average earnings during one typical pay period. (451) For the State of West Virginia the record compiled from the publications of said Bureau is as follows: The sample made in 1919 shows the average earnings of the day men were \$4.09. They rose to a high of \$5.87 in late 1921 and early 1922. The next observation made in 1924 shows that they had dropped to \$4.93 where they [fol. 368] stayed with slight reductions until the beginning of the great depression, and in February, 1933, the sample showed an average earning of \$3.25. It is significant that the drop in the daily earnings, which means essentially wage rates, in the State of West Virginia, came four years before the drop in the Illinois rate, indicating the competition to which the northern districts, as represented by the State of Illinois, were subjected during this period. The third barometer of wages indicated on this chart is the average daily earnings in the State of Tennessee for day men, also developed from the Bureau of Labor Statistics. The Bureau seems not to have made any canvass of Tennessee mines in the years 1921 and 1922 so the chart shows

the record beginning with 1924 in which the average was found to be \$3.55, which fell by degrees to \$2.66 in early 1933. (452) These are shown on the table (Def. Ex. 4-A). The working time tended to increase for a while due to the fact that the number of men on the rolls had been drastically reduced by about 200,000 workers between 1923 and 1930, which drop is shown in the line marked "then employed" in Defendants' Exhibit No. 4. The fact that these men were forced out of the industry and that the mines in which they worked had also shut down made it possible for the remaining mines to operate far more steadily and the average working time for the mines that remained in business increased from 179 in 1923 to 219 in 1929, the latter figure being still less than the average in 1913 the last prosperous year before the war. (453) What a man [fol. 369] can make in the course of a year depends on his daily rate and on the amount of time that he has to work. (454) During the prosperous years before the reductions in the wage rates, there were masses of men in the mines who earned in the neighborhood of \$1,100 and \$1,200 and some much more and some not anywhere near that much. You can get a rough picture of what these day men would be making in the year 1932 if you take the Bureau of Labor Statistics findings as to their average earnings in the month of February, 1933, and multiply that by the number of days the mines worked in 1932. In West Virginia, the product of days times the February, 1933 rate would be a yearly income of \$546. In Illinois, if you take the days times the union rate, \$5, the individual income would be \$560. In Tennessee, if you took the Bureau of Labor Statistics findings as truly representative, the annual earnings would be \$394. These are the day men, not the tonnage workers, who sometimes make less and have often made more. The Bureau of Labor Statistics samples are thoroughly comparable from time to time, but, in my judgment, may not show the full depths to which the reduction of wages went during the years of the depression. The list of mines has been brought to my office for checking. I have examined the mines that are counted by the Bureau of Labor Statistics in its findings for the States of West Virginia and Tennessee. (455) They include a number of large mines and are heavily weighted by the bigger mines and especially the captive mines. On the whole, those mines have [fol. 370] maintained wage scales rather better than the

little properties. It is therefore more than possible in my judgment that a complete count of all the mines in the State of Tennessee would have shown average earnings materially less than \$2.66 a day in 1933. I think we all of us have seen mines where rates were lower than that figure. (457) I have prepared or had prepared under my direction from data in the Bureau of Mines a table entitled "Disposition of total output of bituminous coal mines of the United States, by years, 1915-1933". By "shipment" in the second column is meant loaded at the mine in a railroad car or in a few local instances in a river barge for shipment by rail or river. In the next column is the percentage that that item bears to the total production in the country. (458) With respect to the column entitled "Truck or Wagon Commercial Sales" there have been wagon sales at least from the earliest times, but there was no separation made of them in the statistical records prior to 1932 or 1933. They were included in the caption "Other Sales to Local Trade, Used by Employees, or taken by locomotive at tipple". In 1933 for the first time we obtained an accurate separation, which warrants publication under the name "Truck or Wagon Commercial Sales". It was found that in 1933 that constituted 4.6% of the total output of coal. With respect to the column "Made into Coke at Mines" there are data in our Bureau as to what happens to that coke after it is made at the mines. Virtually all [fol. 371] the coke as it is drawn from the beehive oven at the mine, is loaded into railroad cars or very rarely into a river barge and shipped away. According to our latest accounts, there are three coke-oven plants in the United States that are still using some coke they produce in an affiliated factory right at the mine. But for practical purposes, all the coal that is charged in beehive ovens at mines, either 24, 48 or 72 hours later is loaded on railroad cars or on a river barge and shipped away. (459) The first column entitled "Loaded at Mines for Shipment" is the total shipments whether intrastate or interstate.

(460) [The table was offered and received in evidence as "Defendants' Exhibit No. 8 for Identification".]

I have prepared or had prepared under my direction from the records of the Bureau of Mines a table entitled

“Distribution of bituminous coal produced in 1929 according to the records of the United States Bureau of Mines, grouped by State of origin”. (474) [The table was offered and received in evidence as Defendants’ Exhibit No. 9.]

A map has been prepared based upon the table which has been marked “Defendants’ Exhibit No. 9”. Certain additional details have been entered on this map to indicate the distribution of coal shipped to tidewater, as to what states it is known to enter into, and certain additional [fol. 372] details to show which of the New England States have received coal from the origin districts represented. (475) [A map entitled “The Interstate Movement of Bituminous Coal in 1929, as shown by the reports of the United States Bureau of Mines” was offered and received in evidence as Defendants’ Exhibit No. 10.]

A map has been prepared based on very familiar public data in the Annual Report of the Bureau of Mines. It shows graphically the total production of bituminous coal in each state and the portion thereof that was shipped by rail or water or shipped out in the form of coke. (476) It is for the year 1929. [The map entitled “Production of bituminous coal and total rail (or water) shipments, by States, in 1929” was offered and received in evidence as Defendants’ Exhibit No. 11.]

By the Court:

The figures under the small heading represent production for that year in that State, I believe in millions of tons.

By Mr. Chritchlow:

I have prepared a chart entitled “Distribution of Pocahontas-Tug River coal, 1929” which shows graphically the consuming states in which coal produced (477) in the Pocahontas-Tug River district of southern West Virginia, including a small overlapping in the adjoining State of Virginia, was distributed in 1929. It is based wholly upon Defendants’ Exhibit No. 9 or upon another table which is in the set of exhibits, with the single exception that the relative importance of the tidewater movement of coal to certain points of destination, has been added graphically on this map. [The chart was offered and received in evidence as Defendants’ Exhibit No. 12.]

I have prepared a table headed "Distribution of the supply of bituminous coal from each originating district in 1929, divided between interstate, intrastate and railroad fuel." (478) This was compiled on data of the Bureau of Mines under my direction. [The table was offered and received in evidence as Defendant's Exhibit No. 13.]

I have prepared a table headed "Distribution of the total national supply of bituminous coal in 1929, divided between interstate, intrastate, and railroad fuel". (479) [The table was offered and received in evidence as Defendants' Exhibit No. 14.]

I have had prepared under my direction a table entitled "How intrastate rail shipments of bituminous coal to Indianapolis meet competition from interstate rail shipments (1929 data)". [The table was offered and received [fol. 374] in evidence as Defendants' Exhibit No. 15.]

(480) I have prepared or had prepared under my direction a table entitled "How intrastate rail shipments of bituminous coal to other large cities of Indiana, Illinois and Ohio meet competition from interstate rail shipments (1929 data)". [This table was offered and received in evidence as Defendants' Exhibit No. 16.] This table is based upon the detailed records of two railroad traffic bureaus, one called the Illinois Freight Association and the other called the Ohio Bureau of Coal Statistics. All cities carried on the books of the two traffic bureaus in such form that they could be matched up, say a figure from the Illinois Bureau be placed alongside a figure from the Ohio Bureau, were used in this compilation. (481) Then there was a certain lumping of destination groups "all other Illinois" and "all other Indiana," and they were left out as having no significance.

[There were then marked for identification and subsequently received in evidence the following: Table entitled "Bituminous coal loaded for rail shipment on origin railroads in the Appalachian districts north of Alabama—Northern Railroads" as Defendants' Exhibit No. 17 for identification; table entitled "Bituminous Coal Loaded for Rail Shipment on Origin Railroads in the Appalachian Districts North of Alabama—Southern Railroads" as Defendants' Exhibit No. 18 for identification; and table entitled "Recapitulation of Bituminous Coal Loaded for Rail Shipment on Northern and on Southern Railroads

in the Appalachian Districts North of Alabama'' as Defendants' Exhibit No. 19 for identification.] Table 19 is a recapitulation of Tables 17 & 18.

Cross-examination.

(484) By Mr. Whitney:

Referring to Defendants' Exhibit No. 4 and to the table at the bottom thereof and my testimony in connection therewith I meant that the two-year interval for wage agreements, falling in the even years, related to the period before the world war. During that time from 1900 up to 1916 the agreements had run for two-year spans and they happened to expire in the even years. My recollection is that the agreement was reopened in 1917, a period of rapidly advancing prices and costs of living. (485) The miners had a real case for a substantial increase. That agreement was supposed to run for two years or until the expiration of the war. There was no wage agreement in the year 1918. A new general wage agreement took effect April 1, 1920, resulting from the award of the United States Bituminous Coal Commission of that year. That agreement ran for two years expiring March 31, 1922. It was renewed for two years more expiring March 31, 1924. The Jacksonville wage agreement which became effective April 1, 1924 ran for three years to March 31, 1927. There was great difficulty in renewing that and thereafter the sequence is not uniform in the different districts. In Illinois an [fol. 376] agreement was reached late in 1927 to run for one year, at the termination of which there was another tremendous suspension and a renewal was reached to run until 1932.

1929 was a year in which no important district had a wage contract that lapsed. (486) It was a year of somewhat larger consumption than the two preceding years. It represented the end of the general business prosperity of the United States and for bituminous coal was a year of somewhat larger demand than immediately preceding, and probably more active markets. As for labor disputes it was a year in which there were no major wage contracts expiring. It was reasonably representative of the average of the period 1927, 1928, 1929 and 1930.

(487) Labor disputes are associated with the whole picture. They are caused, to no small extent, by the competitive pressures. They result in differentials in wages. I do not believe that it follows from the fact that there were no days idle in 1929 on account of strikes and that 1929 is fairly representative of the period 1927-1930 that industrial disputes do not make much difference to the industry as a whole. (488) In 1926 a British strike was one of the factors that underlies the substantial increase in spot prices indicated in Defendants' Exhibit No. 5. I am not sure that it was the principal factor. I would say that its effects were about equally divided with the knowledge the consumers had in August that the Jacksonville wage agreement was going to expire on March 31 and that they ought to lay in heavy stocks. Stocks of coal were relatively small [fol. 377] in the middle of 1926. Between that period and March 31, 1927, the consumers built up their stocks to 75,000,000 tons.

The chart (Defendants' Exhibit No. 5) is reproduced from the drawing in the annual coal report in the Bureau of Mines. (489) Assuming that the chart is plotted correctly, the data are reliable. The little captions on it were thrown in for purposes of illustration.

(490) The cause for the rise in spot prices from approximately \$1.25 to approximately \$4.15 in the year 1916 on the same Defendants' Exhibit No. 5 was due to the coming on of the Great War, the piling up of munitions orders from the Allies in the eastern states, and the resulting congestion of rail transport intensified by the sheer increase in volume of coal loadings. That increase had very little relation to strikes. It was not due to unfair competitive practices in the industry. (491) The decline in spot prices in the summer of 1917 from approximately \$4.15 to approximately \$2 was not due to labor disturbances. That was the result of the president's order fixing prices under the powers conferred upon him by the Lever Act. The preceding price represented what the semi-voluntary efforts of the Committee on Coal Production of the Council of Defense had been able to effect in the way of voluntary agreements among producers to limit prices. This Committee pushed the spot price down halfway from where it had been on a perfectly free and run away market to the level which the President finally set as fair.

(492) The primary cause of the decline from \$6.13 in August to \$5.05 in September was the signature of the [fol. 378] Cleveland wage agreement which resulted in the field beginning to go back to work. The upward pinnacle carrying spot prices up to \$6.13 does not give a fair impression of the level of sales realizations in 1922. I was careful to try to so explain. This represented the movement of the spot price. The coal that was under contract continued to move at much lower levels of price. The little pinnacle in 1926 does not give a fair impression of the level of sales realizations in 1926. It is intended to represent the movements of the spot market. Sales realizations are covered in Defendants' Exhibit No. 38. (493) Exhibit No. 5 represents the average of the spot price quotations for the U. S. as a whole. On the whole, the railroads with their tremendously concentrated buying power have been able to get coal at relatively lower prices. That is one of the complaints of the shipper, that the railroad butchers down the price. I think it is generally known and realized that the carriers have taken advantage of their buying powers. (494) The average of all the spot price quotations for the whole year 1920 was \$5.64. That is higher than what the railroads reported that they had to pay on spot markets. In that year, 1920, the roads purchased 19.3% of their total supplies on the spot market. (495) The conditions in the market to which the railroads are subject are fully and in detail explained in an Interstate Commerce Commission report. In the New England states which were along the seaboard and therefore felt the shortage more, the spot price average cost jumped from \$2.46 in 1919 to \$6.25 in 1920, an increase of 154%.

Not since the end of the 1922 market, which I would place in the first five months of 1923, have there been any run-away markets. The only approach is the increase in the fall of 1926 associated with the British strike and the heavy [fol. 379] purchasing for storage in anticipation of the wage suspension.

(496) That market pushed the spot prices up only about \$3.20 as compared to \$9.50 in wartime and over \$6 in 1922 and over \$4 in 1917.

I would not say that in the light of those conditions the curve from 1923 through 1931 showed violent fluctuations.



The chart stops in 1931 because the Trade Journal "Coal Age" in which the original quotations were published suspended publication of them at that time. I have checked the weights used and I have, every year, verified the average of the spot prices against the average sales realization for that year, to see if they bore a reasonable relation, and I am satisfied that this exhibit and the tables on which it is based are as accurate a picture of the movements of the spot prices as men in the United States will ever know during this period.

(497) The figures I testified to earlier about prospective recoveries of oil in 1929 were not meant to be precise. Ralph Arnold is a distinguished geologist and W. J. Kemnitzer is a well-known one. They reviewed all the geological literature. They applied decline curves to the indicated reserves which they found. They were specifically allowing not merely for the known fields but for what they thought would be discovered. Such knowledge as I have would indicate to me that the conclusion which Arnold and Kemnitzer reached as of that date was still a reasonable presentation of the order of magnitude of the life of the reserves of the United States. (499) I think, yes, so far as my competence extends—which is certainly very limited, I think that these statements are substantially indicative of what the future prospects for oil and gas in the United States are. I think today that it is a reasonable picture to say that the prospect is that oil will last for about 23 years and then enter a period of decline and be exhausted about 110 years thereafter.

The United States Geological Survey places the present developed water wheels of the United States, as of January 1, 1935, at 16,075,000 horsepower. It estimates that the potential power available 90% of the time, including that which has already been developed, is 41,000,000 odd [fol. 380] horsepower, and that the potential power available 60% of the time is 60,000,000 horsepower. Past experience indicates that water wheel development will go somewhat beyond the amount of power available 60% of the time. (500) For very rough purposes of calculation the Geological Survey have assumed that ultimately there might be as many as 80,000,000 horsepower. Today there is 16,075,000. However, the potential power includes everything that might ultimately from any conceivable engineer-

ing point of view be useful. Water power ranges through very wide limits from streams with a great volume of water to little streams with enormous variations in flow. Niagara can give some of the cheapest energy in the world but the great bulk of undeveloped water power is in streams of a type that are not very promising. If you assume that at some distant future every single horsepower of that 80,000,000 were developed, that it operates at 40% capacity at the present thermal efficiencies, 1.4 pounds per kilowatt hour roughly, it would mean that 147,000,000 tons of coal would be replaced. (501) That is a minor fraction of the 500,000,000 tons of annual output and cannot be reached for many decades. By the time the water power is developed to anything like that scale from our 150 years' past experience the people of the United States will be using twice or three times as much energy as they do now. The energy requirements of the United States in the future will have to be met principally from bituminous coal. Water power has made incursions into the use of bituminous coal. The development [fol. 381] now under way, the Tennessee Valley and some of the other public power projects that are in areas where coal has a chance to compete are going to take business from coal. (503) In those estimates, the Geological Survey does not take account of the harnessing of the tides so that developments such as the Passemagquoddy Dam might be in addition to those estimates as sources of power.

I do not know how the wage rates compare as between the United States mines and the British and German mines. I assume generally that the money wages are higher in the United States than abroad. I am not sufficiently familiar with British and German conditions at the mines to answer offhand what the average daily earnings in those mines might be at any particular time. I compute these average outputs per man per day for the United States, and I exchange them with people abroad who are responsible for doing the same thing there. These computations were reconciled in my office.

(504) With respect to Defendants' Exhibit No. 4 I cannot testify of my own knowledge whether the workers in Illinois actually received the wage scale noted by the line called "Union day wage scale in Illinois". The line purports to be the rate, the contract scale. The line "West Virginia day men's earnings" is the average rate received

by the men, according to the findings of the Bureau of Labor Statistics. The two are not specifically comparable. (505) My recollection is that the average daily earnings for all day men in Illinois as reported by the Bureau of Labor Statistics happen to be somewhat larger than the \$7.50 rate. The reason I plotted the \$7.50 base scale is that it happens to be of record all the way back. In the days before the war there were just no studies of miners' average earnings. There are none for West Virginia, for the southern fields. (506) My chart and the table say "Illinois scale, inside day [fol. 382] men, trackmen". This is the rate for trackmen. (507) There are many occupations inside of mines and outside of mines. The Bureau of Labor Statistics findings is the average of all those men paid by the day instead of by the ton. It happens that in Illinois there are a number of rates that are over \$7.50. A motorman makes more than \$7.50. Some of the other skilled occupations are less than \$7.50. The work sheets show the actual average daily earnings of all day men in the State of Illinois as follows: In the year 1921-1922, daily earnings \$7.66 and trackmen's rate \$7.50; in 1924, daily earnings \$7.55; in the year 1926-1927 they are \$7.76. Men get different earnings at different times. (508) There is no change in interstate commerce in coal from Illinois if a West Virginia day man were to move to Illinois and receive the same pay as an Illinois day man, assuming the man from Illinois whose job is taken goes down to West Virginia and replaces the other. I was trying to put on one chart some indicators that would show the broad trends of this industry over a period. I was asked to give the trends of wage rates and I thought that these would be as indicative as any others.

(515) I have prepared or had prepared under my supervision a chart entitled "Total delivered cost of bituminous coal purchased by Class I railroads in the United States and average cost per net ton". [This chart was offered and received in evidence as Plaintiff's Exhibit No. 58.]

(516) I believe that this chart shows that there was a [fol. 383] very sharp increase in the year 1920 over conditions in 1919 and that again the price in 1922-1923 was distinctly above the general levels of the period. The drop after 1922-1923 is much sharper than the drop which is to be observed in any other equal time thereafter. There was a large increase in the average cost between the years

1919 and 1923. I think that it is a fair statement that since that time the fluctuation has not been very violent. The period of violent fluctuation I described as the post-war period shortage, the period lasting from 1919 to 1923. The war contributed to all economic circumstances and conditions for years thereafter just as economists think it contributed to the great depression of 1929. (517) There were also many other immediate and direct causes. I do not see how you could explain the great strike of 1919, lasting six weeks, simply as a war phenomenon, or the great depression of 1922, or the shortage of cars on railroads and general transportation disability of those years. There was, of course, an increase in cost of living in 1919 and that was cited by the miners' union as a justification for their demand for an increase in wages which was one of the points at issue in the strike of 1919. The principal cause of that increase in the cost of living was the upward movement of commodity prices associated with the war.

(518) During the war the Fuel Administration was able to accomplish little during the first six or eight months from the period of September 1 until about March of 1918. It [fol. 384] took office at a time when the shortage caused by the war was so far under way that little could be done except to police fixed prices at the President's order and to take care of the most urgent demands by priorities. After the Fuel Administration was adequately organized and after it developed its budget for the distribution of coal and adopted its zone system, its work was a conspicuous success.

(520) I do not know how many persons were massacred in the so-called Ludlow massacre to which I previously testified. I only know that it was so called in the newspapers at the time. Any knowledge I had of the existence of the Ludlow massacre was derived from newspapers or from journalistic reports. (521) The number of men involved in the strike would not bear on the question as to whether it should properly be called a massacre. In 1914, the average number of men employed in the industry was 584,000. I should have to refer to the data to supply the figure as to how many were involved in the strike at Ludlow.

(522) According to professional paper 100-A of the United States Geological Survey, the total quantity of reserves of coal estimated to be underground in the United States is placed at 3,535,000,000 odd tons. Taking the

production for the year 1929 of bituminous coal at 530,000,000 tons and of anthracite coal at 70,000,000 tons, allowing for loss in mining and average recovery of about 65% of the total of bituminous coal and 60% of the total of anthra- [fol. 385] cite, (523) then that 600,000,000 tons a year would represent an annual drain of 1,000,000,000 tons. Roughly, the number of years the coal supplies would last would be approximately 3,500 years. At the present time the production is far below the total that I mentioned. If we were predicting as of 1934 production, the reserves would exceed 3,500 years. The best years indicated a rapid growth and some allowance must be made for the expected demand. The bituminous coal industry has not been a growing industry since the war. (524) To gain any clear conception of what the life of the coal would be it is necessary to consider by classes and grades and not to talk in terms of national totals. The great bulk of the huge total of 3,500,000,000,000 tons consists of coal so low in grade or so deeply covered that they have but slight value at the present time. (525) The largest single element in the total is bituminous coal of which there are estimated to be 1,440,000,000,000 tons. Besides that there are 1,200,000,000,000 tons of sub-bituminous coal which is distinctly inferior to bituminous. Then there are 1,000,000,000,000 or more tons of lignite which has a heating value of barely half that of good bituminous coal. The production of any mineral tends to be segregated into the more accessible and richer deposits. It is so in coal mining, and at the present time our national output is coming from the cream of our resources, from the high grade coals, the thick coals, the easily accessible ones. Considering the rate at which coals of present market value are being used in many districts the picture is very different. The life of the Pittsburgh bed in the State of Pennsylvania is good for about 100 years at the 1929 rate of production. The life of the famous smokeless coals of southern West Virginia has been placed by very eminent authority, H. N. Evanson at 4.8 billion tons. That [fol. 386] is to say, the reserves of coal beds of present commercial value, 36 inches or more thick. At rates of production as at 1929 that is good for about 85 years. There are of course large tonnages of that area of much thinner beds and in due time (526) as the thicker beds are exhausted, the mining will proceed to the thinner ones.

Smokeless coals compete with other forms of fuel, as does central Pennsylvania coal. These other forms give the prospect of lasting upwards of 85 or 100 years. (528) The 1,440,000,000,000 tons of bituminous coal divided by the 1929 rates of production and allowing for loss in mining as of that time would last approximately 2,000 years and at the rate of the 1934 production would last longer. I have no personal or expert knowledge as to whether methods of mining have improved from 1929 to 1934 but my impression is that they have not. On the whole I think the waste is greater than it was. The anthracite reserves are 29% exhausted. I should say they are of a magnitude to last between 100 to 200 years. (529) I would say that those grades of coal such as anthracite and high grade bituminous need conservation more than coals of a class which may last several thousand years.

I would place the conservation of petroleum as of the most immediate, urgent and pressing importance as between oil and coal. But the problem of conservation is important in all these resources. We cannot afford to neglect either the liquid fuels or the solid fuels. (530) The necessity of conservation of the better coals is also of immediate, pressing and urgent importance.

[fol. 387] I do not know of any source of prediction in this country as to natural resources that is more reliable than the United States Geological Survey. About 1919 to 1921 it was the feeling of many geologists that natural gas had reached its peak and that the problem was to conserve the waning supply. Since then that condition has changed radically by reason of the discovery of new deposits in the southwest and most of all by the development of improved methods of pipe-line transportation, which has widened the radius of pipe-line transportation from approximately 300 miles to 1,000 miles or more. Predictions as to the life of natural resources have frequently been revised in the light of changing experience. (531) Scientists have to be constantly shifting their conclusions as the premises upon which the conclusions are based themselves shift. When the City of Boston was building King's Chapel in 1745 concern was expressed about the sufficiency of the local supply of granite.

The condition of over-capacity in the bituminous coal industry has been in existence as far back as we can push the statistical record. The census of 1880 indicates it was as

much then as in 1890. The chart (Defendants' Exhibit No. 3) indicates that throughout the period when it could be accurately measured, from 1899 to date, there has been a surplus but never as great as developed in 1923 and never with as disastrous consequences.

From time to time shifts in market demand have occurred throwing tonnage from one district to another. (532) [fol. 388] Throughout our national history there have been great changes in the districts which produced coal. There have been very great shifts, resulting from the opening of more districts and more mines which have very largely ceased during the last ten years. There is now opening up in the south another field, the so-called Grundy field, but there are not many developments of that kind at present, nor for the last ten years. There have been during that period of ten years very great shifts in the sources of national supply. It is my opinion that if a scheme to preserve districts in the same proportions they now have were held indefinitely over decades of time and no allowance were made for departure from it, it would be unwise and unfortunate in its results. Compared to the sharp shifts in business which have occurred during the last ten years, I think a very decided degree of stabilization of relative tonnage between districts would be to the advantage of all concerned in the industry. (533) By all concerned I mean especially the operators and miners and districts. The welfare of the consumer also depends upon the welfare of the industry. The consumer has not only an immediate interest in prices, but a very great interest in the success of the whole national economy. And the existence of that national economy of one great industry which is in a condition of financial prostration, and unable oft-times to pay adequate wages, does harm.

(534) I do not know what is an adequate wage. I previously testified that in many instances operators were not paying adequate wages. I testified that the average annual income of a mine worker in Tennessee in the year 1932 in day men's classification would be \$394 in those mines covered by the Bureau of Labor Statistics sample for that year. [fol. 389] This was the lowest of the earnings that I gave as typical. I could not give the average earnings in the year 1932 of farm laborers in Tennessee. \$394 is far be-

low what men in many parts of the United States were earning for that year. (535) I would say the general condition of life among the hill people of Tennessee is below a reasonable standard of life—far below what the common conscience of the country, or the joint negotiations of employers and workmen in industry ought to set as a reasonable level; far below what a minimum wage should be. I personally think it would be highly desirable to provide a higher income.

A stabilization of production of coal will not necessarily stop shifts in market demand. I believe that the power that can control railroad expansion could go far in the direction of exercising a power tending to stabilize the coal industry.

(536) Surplus of capacity would always be present and if minimum prices were not deliberately adjusted to encourage seasonal buying in the off season, the seasonal problem would be much as now. However, if prices are set at minimum levels and are effectively policed and maintained, the result on the financial position of the industry will be beneficial from the point of view of lessening the present financial losses of the operator and of making it possible for him to pay a reasonable wage. (537) I believe the collective effect of the Guffey Act would be to stabilize prices, to increase the sales realization of the operator, to enable him to avoid some at least of the present loss incurred, and to enable him to pay some higher wage than [fol. 390] he would otherwise be able to pay.

I think prices would be higher than they would otherwise be, at the same levels of production cost, under the Act. It is the normal tendency in mineral economics for increases in prices to lead to increases in number of mines or wells. It is the normal result in increase of number of mines that capacity increases. Over-capacity is the fundamental and underlying evil of the coal industry. (538) Increases in prices, under any system of stabilized control of the market, will in time need to be accompanied by some control of sales tonnages, or some control of capacity, in order to be effective over the long run. It is not my judgment that moderate increases in prices under the circumstances I described would have any great effect on immediate increase in capacity but any long-continued application of an attempt to stabilize the market by the setting of minimum prices would have to be accompanied by some



control of supply and of capacity. (539) I would say that out of idle mines not permanently abandoned a sustained increase in the average price sufficient to give the industry a small profit margin might call back into operation 5% of capacity.

[fol. 390½] It all depends upon the amount of increase in price, of course. I should think that 5 per cent was an upper limit of the amount that might be anticipated as likely to return.

The average sales realization in the industry declined from \$2.68 in 1923 to \$2.06 in 1926. A decline of that amount would normally tend to decrease the number of mines. You asked for the decline in average sales realization, and I gave it. That of course does not tell what the decline in producers' profit was. This is just the price at the mine. I had in mind, in prospective in price, such an increase in price as would likewise give a larger spread between cost and price.

(540) I could not answer how much of increase in price would be necessary to give a fair wage to the Tennessee day men and the other miners.

I was thinking not of the total cost at the mine, the total sales realization at the mine, but of the increase in the profit margin, and I visualized conditions under a system of minimum prices that would yield a somewhat larger profit margin to the typical operator. That profit margin would be independent of the source of production in the sense that the cost of production reflect the wage rate. (541) I would say that such an increase in capacity as 5 per cent might come about from changing a deficit in average sales realization to an increase of approximately 5¢ a ton in profit margin independent of the cost of production. (543) I would base that statement on the experience under the code. If I recall it correctly, the average profit for Division I in the year 1934 was 1¢ or 2¢ a ton. Under that incentive of higher prices there were some mines reopened and there were a number of small truck mines reopened but there were no marked increases in capacity so far as our records indicate. We do not have the final records for 1934. (544) Increases [fol. 391] in prices tend to increase capacity in proportion to the increase in profit margin over and above cost. It all depends on the amount of the profit margin. (545) The deflationary effect of prices from 1923 to 1926 decreasing

the number of mines from 9,331 to 5,427 was a decrease of approximately 42 per cent.

During that period there was evidently a very great reduction in the typical profit margin.

(541) I would say that such an increase in capacity as [fol. 392] 5 per cent profit margin for a period of time would have a cumulative effect. When I said 5% I was thinking of a period of two or three years. It would be only a very wild estimate but I think that the change in the capacity at the end of two years, say, might reach 5% and that after that it would increase somewhat—not much. (548) The presence of shut down mines, some of which might physically reopen, is, in my judgment one of the elements in the intense competitive pressure in the industry. (549) The fact of surplus capacity, the fact that labor costs constitute 65% of the total, the fact that it is difficult to reduce prices without reducing labor costs, the character of coal demand, the fact that if you throw a small tonnage on the market above what it will absorb, the price will be seriously depressed, just as if you withhold a very small portion during periods of shortage of what the market needs, the price will rise to famine heights, are other elements resulting in intense competitive situations. A small change in productive capacity can increase the competitive pressure if not controlled. It cannot force a great reduction in price because the price cannot go more than about so much below cost without again killing people off.

(550) The features of the Guffey Act to which I have given substantial attention are the marketing features, the general concept of minimum prices as an aid to stabilization. By stabilization, I mean an attempt to put the industry on a basis on which heavy financial losses can be turned [fol. 393] into a reasonable profit and in which the industry will be able to pay reasonable rates of wages. I have no data as to whether there was any great difference in the cost of living as between Illinois and West Virginia in 1933. With respect to my previous testimony that in that year a day man made \$560 and a day man in West Virginia made \$546: (551) In the years prior to 1933, Illinois production had very greatly decreased. West Virginia production had greatly increased. I see no difference to the national public welfare whether the \$550 goes to a coal miner in Illinois

or to a coal miner in West Virginia. Illinois and West Virginia sell in some of the same consuming markets. Chicago is such a market. So far as labor costs are concerned, West Virginia must pay somewhat lower wages per ton than Illinois to compete in the Chicago market. This is because there are somewhat higher freight rates per ton from West Virginia. (552) It is true that in the course of a year an individual coal miner in West Virginia who wants to earn the same annual income as an individual miner in Illinois must dig more coal in order to do it, speaking particularly of the day man.

By stabilization I do not necessarily have in mind the possibility of a given consuming area being supplied generally by the same producing areas which were supplying it as of the time as of the stabilization. I think the concept does imply that during the period in which the attempt to control the market is in effect the supplies derived from various producing districts directed to a single consuming area will be roughly constant, in proportion, but it does not imply that they should be fixed with reference to any specific standard, or date or time. (553) I think that whether it would be unsound to try to fix that as of a particular date or time would be entirely a matter of judgment and the responsibility upon the part of the agency attempting to make the determination. In my opinion it would not be sound to fix stabilization as of a single particular date or time. If it were so fixed it would inevitably follow that the district which had been growing would tend to cease to grow proportionately in respect to other districts. The coal market as a whole over the entire years has been relatively steady from 1918 to 1930. Therefore, it is true that increases in production in given territories have necessarily been principally at the expense of the production of other territories. The total increases in tonnage in one area have been compensated for somewhere else by a roughly equivalent decrease in some other area or in several. (554) There was a tendency for employment to fall off greatly in areas where production had fallen and there was in some districts a tendency for employment to increase where tonnage was increasing though, on the whole, the increasing tonnage in the districts that grew was attained by operating the mines more effectively or by the tendency to-

ward reducing man-hours per ton which was going on everywhere in the industry. In my opinion, it is not bad for mineral economics in the United States to operate mines more productively and economically.

[fol. 395] I have previously testified that 1929, in which there were no disputes, was fairly representative of 1927 in which there were substantial disputes, that representative character being only as to production and marketing. As the spot price record shows, between 1927 and 1929 there was no very great disturbance of the market and no very great increase in price. (555) We have no record that any consumer of coal in the United States actually went without it in that year (1927) because of a labor dispute.

I should like to make a correction of my previous testimony with respect to the cause of increase in spot prices in 1926. I can now say that the British strike was the principal cause and that the other cause, the heavy purchasing for storage, largely motivated by knowledge that the Jacksonville wage agreement was shortly to expire, was auxiliary and supplementary to it. Both factors combined to produce the effect but the British strike was the largest single factor. (556) I should not think that any increase in wages to miners in Tennessee would have any effect at all upon curing the difficulties of interstate commerce arising out of the British strike.

If there is a local strike in a single mine or a little group of mines belonging to a single company that could not have an appreciable effect on the national supply of coal. The little deficit created would be quickly made up by competing [fol. 396] mines nearby.

Redirect examination.

By Mr. Critchlow:

With respect to the spot price chart (Defendants' Exhibit No. 5) I find that the draftsman has omitted certain minor captions explaining ups and downs in the curve. The minor increase in price which appears late in 1915 and early in 1916 is indicated in our official diagram as being related to the munitions demand flowing from the allied war orders. (558) With respect to the very sharp increase in price late in 1916 and early in 1917 our official record carries the words "coal shortage". With respect to the plateau of

lower prices from early 1917 to early 1919 our official record carries the caption "government price control". With respect to the drop in prices in late 1919 and early 1920 the official record carries the words "government price control". With respect to the increase in the latter part of 1925 and early 1926 the record bears the caption "anthracite miners on strike". With respect to the beginning of the increase in price in the fall of 1926 the record bears the caption "non union wages advanced". With respect to the very slight peak in price in the latter part of 1927 the record bears the caption "suspension ends in the West". With respect to the slight increase in March, 1928, the record bears the caption "renewed suspension in West". With respect to the decline in prices in 1930 the record bears the caption "Prolonged business depression". (559) [There [fol. 397] was offered and received in evidence as Defendants' Exhibit No. 20 a statement of quantity and cost of fuel purchased by Class I steam roads in calendar years 1920 and 1919.]

The vast bulk of the available total tonnage of bituminous coal of the United States lies west of the Rocky Mountains. (560) By very broad areas, the grand total of 3,565,000,000,000 tons is apportioned by the Geological Survey as follows: 500,000,000,000 lie in the eastern province (the Appalachian coal fields from Pennsylvania south to Alabama), 526,000,000,000 lie in the interior province (Illinois, Indiana and the tier of states from Iowa south into northern Texas), 23,000,000,000 tons is low grade lignite in the Gulf province (around the Gulf of Mexico, in and through Texas, up through Louisiana, Arkansas and Mississippi), 1,294,000,000,000 lie in the northern great plains province from North Dakota west into Montana, including parts of certain other Rocky Mountain states), the great bulk of that being lignite and sub-bituminous coal, 1,066,000,000,000 lie in the Rocky Mountain province again largely low grade coal, and 64,000,000,000 are found in the State of Washington, with trifling amounts from other Pacific Coast states.

(561) As I understand the Bituminous Coal Conservation Act, the schedules of minimum price are to be so adjusted that the yield on all grades of coal sold for a given minimum price area shall not be less than the average cost of production curve defined in the Act, for that minimum-price

area. The minimum price is to be not less than the average cost.

---

[fol. 398] (1533) FREDERICK G. TRYON, heretofore called as a witness on behalf of the defendants, was recalled and testified as follows:

Direct examination.

By Mr. Critchlow:

When I testified previously on cross-examination that the strike of 1927 had little effect on the total supply of that year, I understood the point of the question to relate to the national total supply, and I gave the answer that the production of that year was practically identical with the consumption and that there was a very slight increase in prices and that there was no recorded instance that reached my attention of anybody who physically had to go without coal in that year. That was referring simply to the national total output as against the national total consumption. There were very large shifts in sources of shipments in that year. The strike affected about 169,000 men in some eight states, and it lasted (1534) in many of those states something like seven months. In Illinois the output before the strike was running about 10,000,000 tons a month. The first month of the strike it had dropped to almost nothing, and individual railroads serving the States that were affected by the strike, such as the Chicago, Milwaukee & St. Paul, were loading 23,000 cars in the month before the strike, and dropped to approximately 2,900 cars during the strike. Taking the states that were chiefly affected by the [fol. 399] strike, Illinois, Indiana, and Ohio, the drop in their tonnage during the period the strike was in effect, something like seven months, was about 78%, as I recall it, in Illinois, and somewhat less in the other two states. At the same time, the non-union areas to the south, which were continuing at work, increased their tonnage, the State of Kentucky increasing about 20% during these same months. Very roughly, there was a transfer of tonnage from the states of the suspension to the south of approximately 15,000,000 tons. Consumers got through the strike without any acute shortage—partly because of the mines which re-

mained in operation, and very largely by laying in huge stocks of coal in advance of the suspension. It was known that the Jacksonville wage agreement would terminate on a certain date, and consumers anticipated that there might be a suspension and laid in about 75,000,000 tons of coal in storage, which was probably 40,000,000 tons more than would be required at that season of the year. (1535) If you take the extra stock, 40,000,000, and reckon the delivered cost at \$5 a ton, that represents working capital tied up in extra stocks of something like \$200,000,000, and with capital charges on that during the period the stocks had to be held, and the cost of laying the coal down and reclaiming it, which I presume would reach easily 50¢ a ton, the total cost to the consumers of putting in the stock would be approximately \$20,000,000. About half of it was accumulated [fol. 400] during 1926 and about half in the first quarter of 1927. As I recall it, on May 1, 1926 there were about 39,000,000 tons in storage and by January 1, 1927 they had increased to 55,000,000, and on the day of the strike were 75,000,000 tons. That makes approximately 15,000,000 added to storage in 1926 and 20,000,000 tons in 1927. The purchase of this amount in 1926 was one of the major contributing factors to the increase in spot price of that year. (1536) The primary inciting effect being the British strike, and the accumulation of these extra stocks being an important additional factor, without which the observed explosion in price would not have happened. The excess stocks were not all used up during the strike. It was two years before they were used up, and they continued to hang over the market throughout this time. After the consumer had laid in this huge reserve he naturally had to use it before re-entering the market to buy in the usual volume. We have long since learned that the existence of unusually large stocks in the hands of consumers has a very depressing effect on prices. The major effect has been to increase the demand for coal in the period before the suspension takes place; to require carriers to have facilities sufficient to handle these very sharp—I think they might reasonably be described as violent—peaks of demand in anticipation of the suspension, and consequently to depress the use of the carriers' equipment and mine capacity during the period when the production falls off. As I have said, they add to the [fol. 401] cost of coal to the consumer, (1537) and when not

liquidated have a very depressing effect on the price and tend to react on the man who wants to sell coal.

These shifts have an effect on the capacity of the mines. I think the record is very clear that a suspension of the kind that took place in 1927 and the similar ones that occurred in the years before the war, 1906, 1908, 1910, and 1912, not to mention the great strikes of 1919 and 1922, have all been among the significant causes of the increase in capacity. Orders were diverted to new channels, new mines were opened, and a certain illusory anticipation of prosperity suffused the industry. Ill-advised investments were made and this added to the other factors I have enumerated tended to create the great surplus capacity.

With respect to my previous testimony on cross-examination that there would be no effect on interstate commerce if a union miner from Illinois should change places with a non-union miner in West Virginia, if it is assumed that all mines in West Virginia should pay the Illinois rate of \$5 (1538) under some sort of collective wage agreement and mines in Illinois were to pay the West Virginia rate of \$3.25, which rates were in existence in February, 1933, and if it be further assumed that other states roundabout continue to pay the existing wage rates they were paying at that time, which would be a very fanciful sort of assumption, the situation being that the State of West Virginia [fol. 402] would be attempting to maintain by collective wage agreement, a wage scale of \$5 a day, when it was surrounded by competitors who were all paying very much less than that (something like \$3.50 in Pennsylvania, \$3.10 in Kentucky, \$2.66 in Tennessee, and lower rates in Virginia), under those conditions I think the effect on the State of West Virginia's coal tonnage would be catastrophic. The great bulk of its business is interstate, the coal moves to all points of the compass. The bulk of it moves to the area north of the Ohio and Potomac Rivers. It moves against freight differentials of an amount sufficient to impose a definite handicap on the southern shipper competing in the northern market. (1539) I should think if West Virginia were tied to a rate of \$5 a day and its competitors roundabout were paying the rates prescribed, especially if they were free to lower those rates under the non-union conditions then prevailing, the overwhelming part of the State's business would disappear. The low-volatile coals leaving



the southern fields for tidewater would all be competing with low-volatile coals from Pennsylvania in the same markets, produced at a very much lower wage scale. The low-volatile coals moving westbound, which Indiana and Illinois could not replace in terms of quality, could be supplied by the Northern producers of low-volatile coal under [fol. 403] such a wage differential. I should think the one rather early effect would be to greatly cripple the Chesapeake & Ohio and Norfolk & Western Railroad systems, and to throw them into bankruptcy, since the greater part of their revenues is derived from the carriage of coal originating in that State. At the same time, these railroads would be expanding their capacity in the surrounding fields. The competing states would be greatly adding to their business, receiving what West Virginia was losing, and then, if you look off to what would be happening in Illinois, dropping its wage rate down to \$3.25 a day, it would be able to undercut its neighbors, especially Iowa and Indiana, and again there would be a huge increase in tonnage.

(1540) Cross examination.

By Mr. Whitney:

The figures in my statement in "Coal in 1930", page 620, that on calculated capacity in millions of net tons at 308 days the capacity in 1927 was 835, in 1928 was 760, and in 1929 was 752, are accurate and do not conflict, if I may be allowed to say so, with the statement I thought I was making in my prior testimony about the strike of 1927 resulting in increased capacity. If I understand Mr. Critchlow's question, it was not relating to the suspension of 1927 alone, but to the effect of such suspension in general upon capacity. The suspension of 1927 did have the effect of temporarily increasing capacity in the South. A few [fol. 404] more thousand men were drawn from the hills and put to work at coal mines. The total capacity of the South increased somewhat during that year. It was, however, less, even in 1927, than it had been in the peak year 1923. Both North and South were forced to shut down many mines after 1923 and to close out large amounts of mine capacity. The reduction in capacity, however, was much greater in the North than it was in the South. There was a slight net increase in the southern fields in the year

1927. (1541) But taking the United States as a whole, the national total for all districts is a decrease of 75,000,000 tons of calculated capacity.

[Mr. Whitney then made Mr. Tryon his witness.]

A table entitled "Sources of Coal Used for Railroad Fuel, 1929" was prepared by me and my associate, Dr. Young, as one of the publications of the Bureau of Mines. (1542) [The table was offered and received in evidence as Plaintiff's Exhibit No. 67, with the explanation by Mr. Whitney that it was offered particularly for the fact that on page 2 there is a table giving railroad-fuel coal on which freight was paid, and on which no freight was paid, by mining districts, 1929, in net tons, showing bituminous coal sold to railroads on which freight was paid to be 30.9% and that on which no freight was paid to be 69.1%.] This table is based on returns from fuel agents of all the large railroads, [fol. 405] all Class I railroads, and each fuel agent was asked to estimate what part of the total tonnage that he purchased was so-called non-revenue company fuel, and what part was purchased off-line. It works out that of the bituminous coal bought by the Class I railroads, 69.1% was coal originating on their own lines on which they did not have to pay freight to another carrier, and 30.9% was coal originating on foreign roads for which they had to pay freight to that other road. (1543) That coal in respect of which no freight is paid is coal of which the carrier takes possession in its railroad cars and hauls those railroad cars to a convenient storage point. The carrier supplies its own cars for the loading of its own railroad fuel. A very small part is taken directly into locomotive tenders at the tipple. 99% of it must be loaded in railroad cars and moved by the carrier some distance, often across a State line, to the point where it stores its coal. It might often happen that the car in which the coal is taken belongs to some other railroad which happened to be on the lines. (1544) But the coal upon which no freight is paid is carried by the railroad that purchases it.

Increase in price influences an operator's decision to stay in business or go out of business only as it is reflected in [fol. 406] his profits. If prices go up more than costs, and an operator gets an increased profit spread, the incentive would be present to expand. An increase, in itself, will

not necessarily give the incentive to contract, nor will it presumably give the incentive to contract. It depends upon whether costs increase in greater ratio or not. (1545) By profit I mean excess of average sales realization over average cost. In cost I include all elements in cost of production, including depreciation, and selling expense related to the mine. I believe that it is true that a great number of mines operate habitually over the years at below total cost, allowing for depletion, depreciation, and other capital charges, because they operate at a net cash return.

By the Court:

It was certainly true, down to and including 1923, that a great deal of the growth of the coal mining business in West Virginia has been due entirely to natural causes and not dependent on the freight rates or the wage rates. During the years from the early pre-war period up to about that date, there was a very rapid growth of mine capacity in the South, and it was associated in large measure with the opening up of new fields. The railroad net had not been completed in that part of the country. The Louisville & [fol. 407] Nashville Railroad (1546) was sending out important tap lines that penetrated new valleys in the mountains. The Chesapeake & Ohio was expanding, and also the Norfolk & Western. So in 1905 you have the spectacle of the whole Logan field beginning to open up for the first time. In 1912 and 1913 the Harlan field in eastern Kentucky, and the Hazard field in the same area began to produce. The Winding Gulf district in Virginia was opened up about 1907. From those years on until 1923 there was a very rapid growth in capacity in the south. It was growing by leaps and bounds, and largely the process of development of resources that had been before untapped, encouraged by the munitions demand and high prices during the war. After 1923 that growth stopped. There were new mines opened up in the South; there were expansions in capacity and existing mines, but in the South as in the North, the net change after the year 1923 was a decrease in capacity. It was a slight decrease in comparison with the very high mortality that went on in the North, but in the South, too, the picture is one of declining mines in the aggregate and declining capacity. The great increase in business which the South, as an area, attained after 1923,

more or less at the expense of the North, was obtained by working the capacity in existence more days per year.

---

[fol. 408] (562) CHARLES O'NEILL, a witness called on behalf of the defendants, having been first duly sworn, testified as follows:

Direct examination.

By Mr. Critchlow:

I have worked in the mines and been associated with the coal industry in various connections for something over 35 years. As a boy and young man I worked in the mines as a coal miner. I was an officer of the United Mine Workers of America in the central Pennsylvania district. I was secretary of the Central Pennsylvania Coal Producers' Association for 10 years. Since January 1, 1930, I have been vice-president of Peale, Peacock & Kerr, Incorporated, miners and shippers of bituminous coal produced in Cambria, Indiana, and Clearfield County, Pennsylvania. (563) Until February of this year I was engaged in marketing and selling coal produced by the company. Since that time I have been attending wage conferences and have been in Washington, and have not been active in selling coal this year. I am president of the Eastern Bituminous Coal Association, a voluntary association of producers operating mines in 14 counties in central Pennsylvania and Maryland and in Grant, Mineral and Tucker Counties of northern West Virginia. Last year there were about 205 members with a production of 27,000,000 tons. The mines in the area covered by the association produced 37,800,000 tons.

[fol. 409] (564) I am familiar with the marketing of coals in the northeastern part of the United States particularly. The coal produced by the members of the Eastern Bituminous Coal Association is marketed principally in the Middle Atlantic States—Pennsylvania, New York, New Jersey, Delaware, District of Columbia, and the six New England states, at tidewater ports of Philadelphia, Baltimore and New York for trans-shipment for points beyond, in southwestern Quebec and eastern Ontario all rail, and via the Great Lakes of the northwest to points in Canada and

the United States. We also ship coal in small quantities into about 42 different states. Coal from that district competes with coal from the Ohio field, the low-volatile fields of southern West Virginia and eastern Kentucky, the fields of northern West Virginia, the western Pennsylvania high-volatile district and Indiana and Illinois, principally. My company ships about 55% of its production interstate, sells about 20% to railroads and about 20% intrastate, delivered in Pennsylvania. (565) The company does not operate mines in any other state. The coal sold in Pennsylvania competes with coal from Maryland, northern West Virginia and to some extent from Ohio.

In our district the great bulk of the coal is sold prior to delivery. Contracts for delivery from April 1 are usually made between January 1 and March 31 of that year. During that period we sell 50% to 75% of the total sales we make throughout the entire year. Deliveries are made by requisition by the customers from month to month. During the rest of the year we try to dispose of the balance of the coal and accumulate orders so that we can project our work at the mine for one, two, three, four or five days in a given week. Orders and shipping instructions are sent to the mine and then the mine proceeds to operate by loading coal into cars. (566) We have never stored any coal at the mine. There are many reasons why coal cannot be stored at a mine except for unusual circumstances. Coal stored outside deteriorates in quality. There is some loss of heat value and considerable degradation, that is, breaking down into finer sizes. There is also the cost of storing coal and later placing it in railroad cars. The value of coal when stored for any period of time is less than that of fresh mined coal. It would be with the knowledge of course that when you loaded it it would be less valuable than fresh mined coal, and you would have additional cost in the lowered quality of the coal that you shipped to your customers. So that the practice of storing coal at mines, for many practical reasons, is not good. As I have said, except in very, very exceptional cases, and in very infinitesimal quantities, compared to the total amount produced and shipped.

There are differences in marketability and salability in the case of all sizes and grades and kinds of coal. (567) Normally in the summer season it is harder to dispose of larger sizes than finer sizes which are used by industrial

consumers, whereas in the winter time when people are buying household or domestic coal there is greater demand for the larger sizes. The low-volatile coals of central Pennsylvania of the finer sizes are usually of lower ash content and higher heat value, because there are no laminations of dirt or ash to hold them together in larger pieces. In the lower volatile areas of our district, the smaller sizes are preferred by industrial consumers in some instances to [fol. 411] mine-run and to large prepared sizes. That varies with different seams in different localities. In some localities the reverse is true.

The most important factors which determine the coal producer's competitive position in any particular market are cost of production at the mine plus cost of transportation to destination.

(568) Between 60% and 65% of the cost of production is made up of labor cost. In our district, under the wage scale preceding the one now in effect, it was 61% and with the increase in wages granted October 1 of this year, amounting roughly to 15¢ a ton, that percentage will increase approximately to 63%.

The central competitive field, as constituted for wage making purposes, includes the States of Ohio, Indiana, Illinois and the western district of Pennsylvania. In the central competitive field prior to March 31, 1927, and for a continuous period back as far as 1898, wages were fixed by the establishment of a basic wage agreement as the result of a conference of miners and operators from Ohio, Indiana and western Pennsylvania. (569) Prior to the war period, the proportion of all coal produced in the United States which was produced in the central competitive field varied from 40% to 46%. This constituted about 70% of the coal that was produced at unionized mines.

(570) [It was then stipulated by Mr. Whitney that the [fol. 412] traditional way in the industry in the central competitive field of fixing wages and hours is by collective bargaining in an interstate conference between associations of producers on the one hand and representatives of the men on the other, and that the other union areas, outside of the central competitive field, fix their wages and hours by collective bargaining on the basis of the agreements made in the central competitive field.]

Up to 1922 the central competitive field wage scales as applied to the mines within it and to the outlying unionized districts have had a direct influence upon wages in the non-union mines. (571) This effect was in proportion to the closeness of location of the non-union mines, to the unionized area. During the war and the post-war period, due to high prices, car shortages, the shopmen's strike, etc., in order to retain labor at the non-union mines wages in the non-union mines were placed upon substantially the same level as those paid in union mines. This was up to January 1, 1923.

The theory of wage agreements by interstate negotiations rather than by local negotiations was to maintain a proper competitive relationship between producers by establishing proper wage relationships over a large area directly and also indirectly upon areas outside. (572) The basic wage agreement was simply an agreement upon certain basic rates for piece workers and certain basic rates for day wage workers to which all other rates in and around the mines could be keyed and made relatively uniform. Each district made its own agreement on the [fol. 413] basis of the rates and conditions of labor in the basic agreement. The basic agreement covers hours as well as wages and other conditions of employment. On January 1, 1923, the basic wage rate in the central competitive field for the track layer was \$7.50 for 8 hours.

(574) We call the trackmen's rate the basic rate or key rate for day labor and the cutting and loading rates the base rates for piece workers.

Wages are highly important in determining competitive relations. It is important to know what your competitor is going to pay. You have to know what your competitor is going to pay if you are going to have any idea of what your competitive circumstances will be in any market. The fact of the matter is, what you pay is what your competitor is willing to pay even more than what you are willing to pay, yourself, because there are more of them. (575) I cannot say specifically what the wage rates were in the non-union fields on January 1, 1923. The wage scale in the union fields was extended for a period of 3 years from April 1, 1924 to March 31, 1927 by the so-called Jacksonville agreement. Abnormal conditions as to prices and production being fully developed in 1923, wages in the

non-union fields then immediately began to be reduced to approximately the war-time scale, which was in the case of the tracklayer, \$5 in the north and I think \$4.78 in the New River district and the Smokeless field. After the agreement at Jacksonville was signed the non-union fields, beginning with the New River field, reduced their rates from the \$7.50 relationship to the \$5 relationship and the union fields had to continue to operate on the \$7.50 basis. That was the widest disparity between wage rates that I ever knew to exist between the unionized mines and the [fol. 414] non-unionized mines.

(576) At that time there were some non-union operations in Pennsylvania. They were not of sufficient importance to be a dominating influence in wages or hours except when conditions got very bad. In the south there were some union mines in Kanawha district of southern West Virginia and I think a little in eastern Kentucky. Generally, non-union conditions obtained in the mines south of the Potomac and Ohio Rivers and unionized conditions obtained in the mines north of the Ohio and Potomac Rivers.

(580) In argument over an objection to a question propounded to the witness, Mr. Whitney made the following statement:

“It is alleged in the affirmative defense of the Government defendants: \* \* \*

Thirdly, that there have been unfair trade practices. We make no point of the third. Let us have that right out of the case. The Federal Trade Commission has regulated it.”

(590) During the same argument the following colloquy took place:

“My Critchlow: The provisions of the Act are in three parts. I understand from Mr. Whitney that no contention is made that that part of the Act which provides for fair trade practices is unconstitutional. Is that correct?

Mr. Whitney: Except as a part of an entirely unconstitutional statute. It is inseparable.

Mr. Critchlow: Your contention there is that it is not separable?

Mr. Whitney: Yes.



Mr. Critchlow: You have the code divided into these three parts:

One relating to fair trade practice provisions. I understand Mr. Whitney now to admit that if that is separable, then the statute, to that extent, is constitutional."

(609) The original wage and hour agreement in the central competitive field was entered into April 1, 1916 to continue until March 31, 1918. During that period, because of a rise in cost of living and increased prices due to the war, it was modified twice, on April 1, 1917 and on November 1, 1917. The latter was pursuant to an agreement by the Fuel Administrator to grant an increase in the selling price, maximum prices then having been established under the Lever Act. The Fuel Administrator agreed to grant an increase in the selling price, equivalent to whatever increase in wages the miners and operators of the central competitive field would agree was proper. The agreement, known as the Garfield agreement, was on the basis of \$5 for the tracklayer and other rates in proportion, and the Administrator granted an increase in the selling price of 45¢ a ton to cover the cost of this wage increase. That agreement was made to extend for the duration of the war but not beyond March 31, 1920. The Armistice was signed on November 11, 1918, and there was a decrease in the demand for coal and some drop in prices following elimination of the maximum price established by the Fuel [fol. 415] Administrator about February 1, 1919. (610) During the period from February until September the United Mine Workers asked for a further increase in wages due to the rise in the cost of living which the operators refused because they contended that their agreement extended until March 31, 1920. The United Mine Workers then declared a strike on November 1, 1919 and closed down the union operations of the country. That strike lasted until December 10, 1919, during which period available supplies of coal were used up, the non-union operations not being sufficient to maintain the country, it being in the winter time, and the Fuel Administration was reestablished by presidential order, maximum prices being reestablished from December 1, 1919 to April 1, 1920. A temporary settlement was effected on the basis of a 14% increase based upon the increase in the cost of living. The

President intervened and appointed a bituminous coal commission to conduct an investigation into the causes of the strike and recommend an award to the miners and operators. (611) That Commission was appointed in the latter part of December, 1919, and it held hearings and conducted investigations in 1920, finally making an award effective April 1, 1920 of an average of about a 27% increase to the mine workers, making the tracklayer's rate \$6 per day. It recommended that the maximum prices of the Fuel Administration be discontinued on April 1. The miners and operators in the central competitive field confirmed the award effective November 1, 1920. That agreement was supposed to run until March 31, 1922. Following its adoption, prices began to rise very rapidly, the switch-[fol. 416] men's strike affected the coal car supply, the post-war boom of 1920 began, and the day wage workers in certain areas contended that they had not received proportionately as great an advance as had been accorded the piece workers by the Commission's award. During July and August of that year, when selling prices of coal were at their highest point from \$15 to \$20 a ton, for spot sales, there was a series of outlaw or wildcat strikes in Illinois and Indiana by the day wage workers with the result that President Wilson agreed to reassemble the central competitive field joint conference. (612) That conference assembled and failed to reach an agreement as to the amount that day wage workers should receive although there was an agreement that there ought to be an increase. The Illinois operators then granted their day wage workers an increase of \$1.50 per day which brought the scale to \$7.50 a day, and that was immediately signed by all the districts in the country. That rate was carried up to March 31, 1922. The agreement provided that the mine workers and operators would assemble for a joint conference at its expiration. The operators of the western Pennsylvania district refused to attend the joint conference and the mine workers called a strike on April 1, 1922, and there was a general shutdown of unionized mines. The strike lasted from April 1 until about August 19 at which date an agreement was effected by certain operators from various states. President Harding had tried to get the conference [fol. 417] together to bring about a settlement but was unable to accomplish that. (613) A group of companies

from various states, including western Pennsylvania, Illinois, Indiana and some from the southwest, Kansas and Missouri, signed the agreement renewing the 1920 agreement until April 1, 1923 on the same basis. On April 1, 1923 the central competitive field renewed the agreement further to April 1, 1924 at the same wage rate and day basis.

1923 was a good year as to production. I think it was 565,000,000 tons for the country. It was effective as to both production and prices because the long strike in 1922 meant that stocks had been used up. In addition, the coal car shortage had affected many carriers in the latter part of 1922 and the early part of 1923, with the result that prices due to the strike and its effect on them, and the coal car shortage, were on a rather high base from the end of the strike to April 1, 1923. Most of the coal that was sold for delivery after April 1 over the ensuing 12 months was contracted for at relatively high prices. Although prices declined from April 1 throughout the year there was a good volume of general business.

(614) Toward the end of 1922 the effect of the excess capacity was beginning to show itself on prices and in competition. The coal car shortages had ceased to exist and we have never had one in our country since.

The next wage agreement was made in the first quarter of 1924 and was effective from April 1, 1924 to March 31, 1927 on the same basis of \$7.50 per day. Wage rates in the Southern fields were reduced to the Garfield agreement base which may have been \$4.68 in certain fields and \$4.78 in others. (615) The wide disparity of wages between the union and non-union fields enabled producers [fol. 418] on the lower level of wages to take markets away from the producers who were tied up on the \$7.50 per day wage rate level. From 1924 to 1927 business was lost by mines in Pennsylvania, Ohio, Indiana and Illinois by millions of tons and the relative increases in the south, particularly in the mines in West Virginia and Kentucky, were greater during that period than at any other time. It closed down mines operating in the unionized area. In the central Pennsylvania district the number of mines in operation was reduced from 1,022 to 357 in 1933, a production decline from 54,000,000 tons to 28,000,000 tons. (616)

The continuous decline in prices meant losses, and confusion increased year after year in our district until about July 1, 1933. Well, as the pressure of competition increased losses due to the fact that we had to sell at prices greatly below cost of production, became greater. Northern operators abrogated their contract with the union and opened up on a non-union basis and established wage scales at whatever level they could. Usually they tried to go to a \$5 basis which was a reduction of \$2.50 per day. Strikes began in all the union districts of the north about 1925. As one company went non-union, others were compelled to go non-union and finally whole districts went non-union. We carried out our contract with the union and continued the wages for three months of 1927. We attempted to get the union to give us a reduction so that we could compete with the non-union rates but they refused and on August 17, 1927 we opened up our mines on a non-union basis.

Practically everybody in the district who had remained union did the same and established a \$6 a day wage rate. [fol. 419] (617) We had a big strike and finally got the mines open and operating on a non-union basis about the first of 1928.

The central competitive field was unable to enter into any agreement in 1927 at the expiration of the Jacksonville agreement. Between 1925 and 1927 the western Pennsylvania district had gone non-union. The Ohio district which had remained union refused to renew the agreement on that basis and withdrew from the central competitive field and went on strike and declared their mines open shop. We likewise in the central Pennsylvania field did the same thing a little later. The conclusion of it was that the mines in Pennsylvania and Ohio were all non-union by 1928 except in a very few instances. Illinois and Indiana were practically all that remained in the union in the north. From 1927 to 1933 wages were established more or less arbitrarily by the operators, sometimes in groups through associations and sometimes just by the individual operators and the longer that policy continued the worse it became. We cut our wages to \$6 in 1927 and on June 16, 1929 to \$5 in the central Pennsylvania district. On November 16, 1931 we cut to \$4.40 a day. (618) On April 16, 1932 we cut to \$4 a day and on December 6, 1932 we cut to \$3.44 a day. Then we quit. We figured that was about as far

as we could go. And that was really the highest wage paid by a group of representative operators in our district. Wage cutting had become so prevalent in the industry that it was very difficult for anyone to know exactly what any other operator was paying. It had become a matter of the individual slashing of prices and then the individual slashing of wages in order to meet the prices and to try to keep in business. The confusion and chaos that the industry [fol. 420] was in in 1933 is reflected in the fact that the average realization for our company was \$1.21 a ton.

We have figures more representative as to what the district and other companies were doing. (619) When we were negotiating with the NRA in 1933 for our district we assembled the cost and realization for 68 representative mines. They showed a realization of \$1.14 and a cost of \$1.44, a loss on cost of production against average realization of 30¢ a ton during that month.

We made the wage cuts I have mentioned to try to meet the competitive circumstances of the market. We made out cut on December 16—no, on November 16, 1931, in anticipation of the prices we would probably have to quote in order to sell our coal in the contracting period from January 1st to March 31, 1932. The trouble with it was that you made wage cuts at stated intervals, and your prices were continually going down, and after you cut your wages, your prices kept on descending. You never could keep up with them, so that every so often you probably reduced your losses by again taking it out of the only place you could get it, which was by cutting wages. That was why we had to do it, in order to try to stay in business. Of course, wage cutting became absolutely prevalent in the industry. Everybody was cutting prices and wages, and prices and wages were made according to the competitive conditions. (620) That condition existed from 1927 until July 13, 1933. It started in 1925 in the unionized fields and was a continuous operation from that time forward.

We continued operating our mines because we had a large investment. It is a costly matter to let a colliery stand idle. There are taxes and fixed charges and maintenance men and organization. In our district it would cost 20¢ to 30¢ a ton of annual capacity to let the mine stand idle and take care of it properly. That is the pressure that is back of an operator to try to operate his mine

to accumulate enough tonnage in order to reduce those losses.

(621) During the depression in our district we were on about three to three and a half days a week. The average [fol. 421] age for the field was three and a half days, 157 days for the year 1932, while the record for 1933 was about 170 days. In 1928 it was around 200 days. This is on the basis of a full year of 300 days.

Figures for our district show that a mine working three days as compared with the same mine working five days a week means a difference in cost of about 16¢ a ton in favor of the five day week. That is what forces you to try to get tonnage at a price so that you will have backlog tonnage, that is, the proportion sold to industrial plants or for delivery over a long period of time. After you get that your incentive is to cut cost of production, to add to that tonnage as much as you can in order to get a greater degree of operating time and reduce the expense due to idle time. That is a constant depressant on the market because you always have a surplus of offers in the market at continually declining prices.

(622) We cut our wages on December 16, 1932, in our district in anticipation of selling our coal in the usual contract period. The Interborough Rapid Transit Company in New York City is a very large consumer of coal, purchasing over 1,000,000 tons annually. That company, under the direction of the New York Transit Commission, makes contracts after public opening of bids. This occurred in 1932 about March 15 and the awards were granted on March 29. The next day one of the large suppliers of that company, who had received a generous portion of those 1,000,000 tons, cut his wages effective March [fol. 422] 30. The effect of that award and wage reduction, which was public, affected prices for public utilities all along the Atlantic Coast. The rest of us who were doing business in that district had to immediately cut our wages in order to revise our prices and meet the competition.

We had substantial losses in the period 1929-1933. In 1934 we broke even.

Under the Bituminous Coal Code of the National Recovery Administration our position was materially improved from a financial standpoint. (623) We wiped out our losses and had substantial increase in wages for the mine workers and

in general a much better situation, particularly during the year 1934. The Code regulated prices and wages. I am not so familiar with the industry as a whole except as to Division No. I, which included the mines in Pennsylvania, Ohio, West Virginia, Virginia, eastern Kentucky and Tennessee, and about 70% of the production of the nation, employing approximately 325,000 men. In that area, the operation of the Code changed the situation from one of constantly recurring losses to a very slight margin of profit in 1934, with a benefit to operators and miners and reasonable prices to consumers.

(624) I was chairman of the eastern subdivision of the Code Authority of Division No. 1 under the Code. (625) There was a provision in the Code requiring the filing of certain information. By an amendment in 1935 producers were required to file invoices, contracts, credit memoranda and other information necessary to the compiling of prices [fol. 423] and practices under the Code.

(627) [A copy of the NRA Code for the Bituminous Coal Industry was then offered and received in evidence as Plaintiff's Exhibit No. 59.]

During 1933, when wages had reached these very low levels, both in the north and the south, produced by this terrific price war which had been continuing, the National Industrial Recovery Act was enacted by the Congress. The mine workers and operators were assembled by the Administrator of that Act and there was worked out what came to be known as the Appalachian wage agreement. (628) The Code and the wage agreement were made effective on October 2, 1933. That agreement ran until April 1, 1934 and covered the States of Pennsylvania, Ohio, West Virginia, Virginia, eastern Kentucky and northeastern Tennessee. Because of the great volume of tonnage and number of men directly affected by it the Appalachian agreement was made the basic agreement and there were some 23 district agreements made under it. It also is the basic agreement for the wage schedules in all union districts in the United States which now, I think, cover about 95% of the total miners employed. That agreement was extended on April 1, 1934 for a year with a wage increase and a change from an 8 hour day to a 7 hour day. At the expiration of

that agreement a joint conference met on February 18, 1935 and failed to reach an agreement. On April 1 the National Recovery Administration had the agreement extended until June 16. (629) Later the President intervened and had it extended until July 1 and there were two or three other [fol. 424] extensions brought about by government intervention and an agreement was finally consummated after a five day strike in September, which was made effective October 1 of this year, with an increase in wages of 9c a ton and 50c a day on day wage workers, that agreement to extend to March 31, 1937. [Copies of the Appalachian and Smokeless agreements, dated October 1, 1935, was offered and received in evidence as Defendants' Exhibit No. 21.] (630) Producers of more than two-thirds of the national tonnage for 1934 are signatories to the Appalachian agreement. In 1934 the Appalachian area produced about 251,000,000 tons while the entire country's production was 358,000,000.

The only wage agreement executed under the Appalachian agreement in a district outside the Appalachian area of which I know absolutely of my own personal knowledge is Illinois. I have a general understanding that they have been generally closed all over the country on the same basis. The United Mine Workers of America have approximately 300,000 men in the union in the Appalachian area out of some 400,000 or 450,000 men.

(631) [A copy of the Smokeless wage agreement, dated October 1, 1935 was marked Defendants' Exhibit No. 22 for identification and was withdrawn.]

In eastern Pennsylvania most of the mining towns are isolated. That is, they are built near the location of the mine, which is usually located in a field. Such industries [fol. 425] as there are around the mining towns are usually dependent upon the mine itself. (632) That is also true of local businesses. In Johnstown, Pennsylvania, and around Pittsburgh, there are many mines located near big centers where there are many other industries. Generally speaking most mines are isolated. In my judgment a price schedule based upon the weighted average cost of producing coal in minimum price area No. 1 would have the effect of placing that schedule of prices at a realization at or about 65% on the cost bulk line—(633) in other words, 35% of the



mines in my district would produce coal above the weighted average cost of the district and 65% would produce coal at or below that cost. It is my thought that that price provision would have the tendency to concentrate the business in the efficiently managed, well-operated mines and to do it in an orderly fashion, with the tendency to reduce cost at a given wage scale, rather than to have the disorder and chaos we have without any controls.

(634) Cross-examination.

By Mr. Whitney:

It is hard to tell what the exact level of prices is today in any district. It is my judgment that the Act would not increase prices substantially above the NRA code levels. I think the current prices will be raised some in my district and more in some others.

I do not know why an increase in price should have any effect on the number of mines if it is effective at all collieries and to the same extent. (635) If prices were raised more [fol. 426] at one mine than another it might affect the operation or closing down of those mines. It is my judgment that a general increase in the present price level will make no change in the number of mines in my district. It depends on the relation to profit. If there is a profitable margin, it will increase the number of mines or open up mines that have been temporarily closed down. If prices are fixed on a basis of average cost I cannot see why it would open up any more mines.

The increase in price will affect the profit of only those operators that can produce coal below the average weighted cost. (636) I know of nothing in the statute that contemplates an increase in prices as such. There is no direction in the statute to increase prices. In my district current prices are now probably 15 or 20c a ton below average cost.

Assuming that the statute will provide an increase in prices (637) its effect on a particular mine selling below cost if it had to make a very large increase in prices would affect that mine adversely, perhaps, from a competitive standpoint. If all the factors entering into the sale of coal such as quality, etc., are known, it might have the effect of closing down a mine of that kind. If the average price in our district is raised to average cost and the average prices of all

our competitors are raised to average cost it will not make a change in a single mine's position in our district. (638) If we raise prices and nobody else does it will shut mines in our district, but if the provisions of the Act are carried out and everybody goes to the same level it will make no difference. (639) If prices throughout the country are raised [fol. 427] to profitable levels it will increase the number of mines in my district.

My company screens about 30% to 40% of its coal. When we make sized coal it is very difficult to keep in proper balance the relationship of various sizes in all months of the year. The prepared sizes would go to the householder and they are a drug on the market in the summer time.

I mean by proper wage relationship the relationship of one rate to another rate within a given mine, that is, (640) as to a skilled inside laborer as compared with his helper, for instance. I also took into account in piece work rates, such differences in physical conditions over a broad territory as will give relatively uniform wage schedules and a relatively uniform possibility of earnings between mines within a district, between districts and between states. Some of them are recognized as differentials, some merely differences.

When I testified in 1926 at hearings before the Committee on Interstate and Foreign Commerce of the House of Representatives that—

“The tonnage of non-union fields is naturally expanding, and tonnage produced by operators doing business with the United Mine Workers of America is contracting. The Government cannot cure this. These two ideas will continue their contest for domination in the industry. The thing that the nation needs is a restoration of the status in the mining industry preceding the War. This can be, and will be, brought about by the men in the industry within a very short time. In my opinion, the best that Congress can do to help this thing along is to leave the matter alone.”

[fol. 428] I meant just what I said, but between 1926 and 1933 I changed my mind and found out that we could not be left alone and live, without destroying the industry. I do not mean that the coal will be destroyed but that the business of mining and shipping coal will be destroyed by destructive price cutting. (641) I can visualize insufficient coal being

shipped to take care of the requirements of the consumers if the industry were carried on as in 1933. I think that destructive price cutting can only result in shutting down the mines or absolute monopoly by securing control of the entire industry by those strong enough to remain in the business. I do not know the exact number there are but I suppose there are several thousand companies now engaged in the industry. The ones I fear will acquire monopolistic control are those who can last through the fight. I have no fear of any of them that I know of particularly. I am talking about the results of destructive price cutting.

In my district, 80% have joined the Code voluntarily and Indiana had something over 90% and Illinois 96%. I think it is true that everyone who has joined the Code has joined "voluntarily."

(643) When I testified before the House of Representatives last spring, I felt that there were many men who had engaged in a conspiracy to destroy the NRA code and I anticipated that without enforceability in the Act, such would be the result of any legislation that might be passed by the Congress—that these same men who had destroyed the code by destructive price cutting and unfair trade practices would strike down the Act if there were no provision that would make them comply with the Act when they had signed it. I felt that there should be a provision to make [fol. 429] them obey the Code after they had signed it and that it should be severe enough to make those kind of people respect the law. (644) My judgment is that the producers who attended the meeting in District No. 1 were there voluntarily and signed voluntarily, without the compulsion of the provisions in the Act.

(650) With respect to the testimony I gave before the House Committee on Interstate and Foreign Commerce in 1926 as set forth above, the reasons that caused me to change my mind subsequently are as follows: The mines in the non-union areas did continue to expand their production, or increase their proportion of the country's production, and non-unionism became the dominant idea in the industry during the period from 1924 to 1928. But after it had won out, instead of settling the problems of the industry in restoring the normal condition of competition of operators from all states, all non-union, it resulted in complete chaos and disorder in the industry. And when I realized that, from 1926

to 1933, non-unionism being dominant in the industry, there was still disorder and chaos, bankruptcy and strikes, and troubles everywhere, low wages, impoverishment of miners, bankruptcy of coal companies; and with no end to that situation, I decided that probably the industry needed something else to help it get on an orderly basis. (651) The depression in the mining industry began really in late 1923. There was no period of prosperity in the industry from 1923 to date. It was always in an impoverished condition, continually getting worse. There were slight periods, affected by the anthracite strike in the United States in 1925 and the British miners' strike in 1926, when mines in the eastern portion of the United States had some increase in prices and in volume of business which put them on a better basis for these years than other parts of the industry. I do not know [fol. 430] just when I changed my mind. I came to Washington in May of 1933 to attend the meeting of the Association of Manufacturers who were seeking to amend the National Industrial Recovery Act and at that time, instead of opposing the Act, I supported it. (652) The change of mind was a gradual process. 1933 is finally when I did change my opinion as to what the outcome of our situation would be on a nation-wide basis with unrestricted competition. The gradual process began to occur from 1930 on, as I got closer to the marketing problems of the industry and had to sell coal, and realized that our prices were going down and that there was no hope of stopping them. It is fair to say that such depression as the coal industry suffered prior to the general depression was not a factor which caused me to begin to change my mind. I cannot see anything but a continued depression in the coal industry. The coal industry was low before general industry became low. General industry did not become low until 1929 and 1930. I cannot state definitely when my mind changed or by what process it changed except the condition of chaos and disorder which was in the industry and for which I saw no end, (653) which led me to the conclusion that we need some regulation. I am not so certain that my mind was on the way to a change by 1931. I began to realize more keenly the difficulties with which the industry was confronted and made some efforts during that period to try to put the industry on some basis whereby we could maintain order. I do not remember whether in 1931 I had changed my mind on that or not. In

[fol. 431] 1932 I tried to support the regional sales agency plan which came out in the Appalachian Coals case. I do not know whether I ever replied to the question in 1932 as to whether the Government could cure the situation. (654) One's opinions change as time goes on and one recognizes the full force and effect of the circumstances that bring about the change. It may be that my mind was well on the way to a change in 1932 but I cannot say. I think I reached the conclusion that the poor condition of the coal industry after 1926 and prior to the general depression did cause my mind to turn in the direction of a cure by the Government. It was a combination of all the circumstances of my experience from 1923 forward. I cannot fix the exact date. I think it was the result of the total development; the facts controlling the industry were becoming more evident every day to me. (656) I do not believe that prior to 1930 the full force and effect of conditions had brought me to a point where I could say I had changed my mind at that time. I was still living in the hope that we could work it out by and through our own efforts by voluntary action. I felt the full force and effect of it by 1932 and 1933. That is when I reached the conclusion that we were rather hopeless.

(657) I have not thought overnight of the name of any company that is likely to monopolize coal in the event the Guffey Bill is held unconstitutional. I said that I thought the end of destructive price cutting would be to give a monopoly to those who would live through it. I do not know of any company who could live through a destructive price war, such as we were engaged in in 1933. It continued from [fol. 432] 1924 to 1933, and I think we have evidences that it is recurring again, right now. In 1932 I saw the wreckage of company after company going out of business. It is self-evident that a continuation of the process would gradually eliminate any company, no matter what its strength today might be. You can destroy the liquid cash capital of a coal company but that does not necessarily liquidate the coal mine. The coal mine is still there. I think destructive price cutting is one of the weapons by which monopoly is achieved in any industry. (658) I do not think it is a new thought of mine that monopoly is likely to happen in the coal industry. Destructive price cutting may bring about monopoly in any industry. I testified in April of 1932 before a committee of the Senate as follows:

“Senator Hayden: I take it from what you say, then, that there is so much coal in the United States, and the ownership is so widely diffused, that there could be no coal monopoly.

“Mr. O’Neill: Absolutely none, in my opinion. In bituminous coal none.

“Senator Hayden: Do you consider the bituminous coal industry, then, somewhat similar to the wheat-growing industry, that there are so many people engaged in it, and there is such wide opportunity to produce it, it would be impossible to produce a coal monopoly in the United States?

“Mr. O’Neill: I think absolutely. So long as coal is real estate I do not see how it could ever be possible.”

(659) because I believed that at that time. I have believed both, that which I testified today and that which I testified before Senator Hayden.

[fol. 433] With respect to my testimony at the same hearing that

“Even during the current period of depression many other industries have suffered a far greater decline in the rate of operation and earnings than has the bituminous mining industry.”

I do not know whether I can testify that all these other industries ought to be regulated by legislation similar to the Guffey Bill. I am not sufficiently familiar with other industries. (660) I am not prepared to testify on the subject of the steel industry. I think there is a good deal of difference between a fabricating industry and a natural resource industry. One is an exhausting industry and the other is not. Coal is a mineral that is destroyed or at least is irreplaceable when taken out. The necessity of conserving coal is one of the elements to be considered. I am not sufficiently familiar with the anthracite industry to testify as to whether it should be regulated by a bill similar to the Guffey Bill. (661) I think it needs regulation. I do not know as to the oil industry but I have many ideas that it ought to be regulated as a matter of conservation of a very valuable national resource. I think the coal industry is special and unique in the respect that it employs so much labor, that so much of its cost of production is labor or wages cost, that it has become needful to the nation and it must continue to give a national service

to the nation and to the carriers of this country in order that it and they will continue to do business. (662) I believe [fol. 434] that the bituminous coal industry is necessary and essential and that it needs regulation in order to continue in business. So far as the salt business is needful for the people, I think all businesses are needful. I do not say that all businesses should be regulated by statutes like the Guffey Coal Bill. The reason that distinguishes the coal business from other businesses is that it is an essential necessity as a national industry and one that can be regulated in no other way and cannot live in any other way. When I say "it cannot live" I can visualize that it will be destroyed so that coal will not be delivered. (663) We had a strike in 1935 that closed down practically all mines of this nation. It lasted a very short time. Its effect was not good.

With respect to whether employees are in a more distressed condition in the coal industry than any other industry, I think that is dependent upon what the selection is. I think that conditions at certain times and in certain areas are very bad. I know that to be the case today in some areas. I think they are very good in some states and they may [fol. 435] still be, but I do not know about that. I think that is a comparison of the local situation. I think there is a peculiar or sui generis distress in the coal industry that does not exist in other industries. I think when we force wages down to \$10 a week we have produced a condition that is not healthy. (664) I think the time the wages were the lowest in the coal industry was in April and May 1933. They were lower on the average then than they had been in 1932. On April 16, 1932 our wage rates were \$4 and in 1933 they were \$3.40. I believe that production as to quantity in the industry was about the same in April, 1933 as in April, 1932. It may have been a little more in 1933. There was greater production for 1933 for the year as a whole than in 1932, and wages were substantially increased in 1933. (665) They were increased in July and August and they were increased on October 2. The difference between the wages paid in April and May, 1933, in my district, was the difference between \$3.44 a day and \$4.60 a day, beginning on October 2.

I think we put a wage reduction into effect December 16, 1933 in anticipation of the prices we would have to quote for business contracted for between January 1 and March 31 of that year. We feared conditions would become worse

and they did. In February, 1935, my company's wages were \$5. In April, 1932 they were \$4 a day. (666) In February of 1935 we were working under the NRA code and had [fol. 436] reasonable hope that it would be continued. I think Congress was considering extending the NRA for a period of two years at that time. In June of 1935 we were paying \$5 a day as a wage scale under the extension that had been arranged by the President. The agreement itself had expired on April 1 and a number of extensions had been arranged for. I was not then hopeful as to the prospects in the coal industry as compared with my feeling in the spring of 1932. The Supreme Court had given the decision on the National Industrial Recovery Act and the NRA code had been eliminated. That was one of the factors that made it difficult to reach an agreement with the United Mine Workers of America for a new wage scale. (667) As to general business conditions, I felt much more hopeful in June, 1935 than I did in April, 1932, and particularly in April, 1933. In June, 1935 as compared with April, 1932, conditions in the coal industry were substantially better. I think the improvement that had been obtained was due to two things: First the working of the NRA code; and second, the establishment of relatively uniform wage schedules all over the United States under the Appalachian wage agreement. These two factors I think improved the situation in the industry as well as the improvement in general business conditions.

[fol. 437] Comparing the time before the NRA and the Appalachian wage agreement with the time after that (668) I think our mines produced about the same tonnages. The first six months of 1935 we produced at a higher average rate for the six months than we did for the three months July, August and September, but that was accentuated by a set of conditions. In the first quarter of 1935 there was a fear that a general strike was going to take place. (669) The production of the mines of my company was not higher than it had been prior to the NRA. The production before and after the NRA was approximately the same. The entire industry had an increase in production due to the improvement in general business conditions. Production was increased. I do not think the code had anything to do with the fact that the relative share of the nation's production enjoyed by my company was decreased. It remained about



stationary and relatively it would be somewhat smaller. The principal thing that affected our business was the policy of railroads purchasing their coal. We did not sell as much coal to certain carriers as we normally did. That change happened sometime during the years 1934 and 1935. (670) That was not simultaneous with the time I changed my mind about the Government's policy of the regulation of the coal industry. (671) The first time I ever took public position in favor of Government regulation was in June, 1933, before the enactment of the NRA. That is when I started to support Government regulation. So far as I had ever appeared [fol. 438] or made a statement, I had been opposed to Government regulation before that time. (672) I had been opposed to Government regulation practically all my life. The factors obtaining in the coal industry and the distressing conditions growing up around them had been making me change my mind about our ability. In 1931 we tried to set up voluntary regional sales agencies. After court action, the Appalachian Coals, Incorporated was finally declared by the Supreme Court to be legal and the agencies started to function about February, 1933. The effect of the Appalachian Coals, Incorporated, so far as I could observe, was not the answer to the needs of this industry. The difficulties that I had in my own district trying to get a sales agency organized made me feel that it could never become strongly enough organized in all the districts of the United States to affect the general situation. (673) I knew nothing about the workings of Appalachian Coals, Incorporated. We started preceding the Supreme Court's decision. We held meetings, wrote up by-laws, set up our capital structure, arranged for our contracts and took out our charter. I think the final report of the committee was published in June, 1933. I think the work began in 1932. There were a number of meetings which began in October, 1931. Our report was actually printed and published in June, 1933. We could not get enough signers. Other districts also failed. (674) When I testified before Congress in April, 1932, that:

[fol. 439] "Even in this period of slack operations there is nothing peculiar to the bituminous mining industry about employee distress and with the return of normal industrial conditions the labor situation will right itself, especially if the industry is permitted to eliminate wasteful methods of

operating and selling through the establishment of cooperative selling agencies, and is left free from the costly and restrictive control of a bureaucratic commission in Washington."

I certainly believed this advice, else I would not have given it to Congress. Thereafter, when I was unable to form a successful marketing agency and the other coal men were unable to do so, I changed my mind because the plan would not work. My advice to Congress was a little hopeful enthusiasm. I believed and hoped that the marketing agency would work but my own conclusions were, after trying to organize one, that we could not accomplish that end.

(675) I do not know whether the commission in Washington will be costly or not. I became satisfied to try that to save the industry. The term "bureaucratic" which I used before Congress in 1932 is a term one uses when one is opposed to any government regulation. There are other commissions than the Bituminous Coal Commission of 1935 that I exclude from that appellation. That is a derogatory term against a rule of doing business, rather than against any particular body. If you are going to try something new, and you are going to put your efforts and time and energy into it, you must, of course, be hopeful that it is going to work, and you must be convinced that it will work when you start out. I can say this cheerfully, that if all the operators in my district will join a regional sales agency, we can operate it successfully with the proper kind of a contract, but much to my disappointment, we could not get them to do that. They could not get them to do that in the Appalachian territory, where they organized one. They could not get them to do that in the Pittsburgh district, where they went to the point of preparing their report.

So that my hope and enthusiasm and belief was destroyed by the fact that the operators would not go along and try to operate it. (677) When I gave my advice to Congress as to the Bituminous Coal Conservation Act of 1935 it was based upon actual experience and the results obtained under the code of fair competition and the National Industrial Recovery Act. I think that regional sales agencies could operate successfully if a sufficient proportion of the tonnage [fol. 440] in each district would sign a proper contract and if every district organized one of a similar character and

equally strong. Then you would have violent competition between these larger units, unless they were permitted to make agreements with each other and coordinate their activities. If they made such agreements, you would have a real monopoly in the coal business. (678) I do not think it would be a good thing to have unregulated monopoly in the coal business. I believe the formation of marketing agencies would be helpful in each district but I can visualize a competitive war between regional sales agencies unless they are permitted to make agreements with each other.

There were certain minor violations by some of the code members in my district under the NRA code. I cannot give the dates. I think they happened oftener as time went on. I think they occurred in the latter part of 1934 particularly and in the early part of 1935. (679) The effect of that was to greatly weaken the code and cause people to have less confidence in it. It had not destroyed it. I think the weakness of the code was evidenced and its destruction apparent to everyone in the early part of 1935. As time went on, in 1935, certain coal companies did undertake to destroy the code. I think they had reached the point where it was evident that the code had broken down.

(680) I think there are several provisions in the Act that will make producers comply with the Act when they have [fol. 441] signed it. Primarily, if I sign the code and violate it I will have my taxes increased from  $1\frac{1}{2}\%$  to 13% on my gross sales price. Section 14 of the Act provides for elimination of people who are expelled from the Code from participating in Government business which I think is a very strong weapon to bring about compliance with the Code. I think those provisions apply to persons who do not join the Code. It would not be satisfactory from the point of view of the coal industry if that provision were eliminated. I think it should apply to those who have not yet accepted the Code. If the purpose of the Act is to be carried out, those who remain outside, if permitted to sell coal at prices below those in the Code, would break down the Code or take all the business that is available.

In other words, if the Code prices were based sufficiently high (681) that they might yield a profit to any proportion of the industry at all, people could reduce their cost by selling just below that level fixed, and in that way pro-

cure a volume of business that might return them a larger profit than the fellows in the Code. I have no desire to make anyone join the Code. I have a right, though, to ask for protection, if I can, for those who do join the Code, from the destructive and unfair practices, from those that remain outside. (684) I do *now* know what effect Section 3 of the Act has on those who would not otherwise join the Code. I know that certain companies came to our meeting (685) and voluntarily signed the Code on the receipt of papers from the Commission and filed them and voted and elected a district board. I know that certain other companies have elected to stay out of the Code. They must have had their own reasons and purposes in remaining outside, so that it had not sufficient compulsion to force about 20% of the production in our district into the Code. I am talking about the entire District 1. The producing districts included in the Eastern Bituminous Coal Association are Central Pennsylvania, the southern portion of Somerset County, Pennsylvania, the State of Maryland, and Grant, Mineral and Tucker Counties of northern West Virginia. I have general knowledge about other districts other than those. (686) I was a proponent of the legislation and was chairman of the special legislative committee (687) of what we call the National Conference of Bituminous Coal Producers, that employed legal assistance to draft this bill, or assist in the drafting of the bill. I participated as chairman and the committee participated in advising with counsel.

(688) [There was offered and received in evidence as Plaintiff's Exhibit No. 60 a copy of the November 4, 1935 bulletin of the Bituminous Coal Commission.] (689) I have no idea why there is such a discrepancy between those who have joined the Code in my district, Indiana and Illinois (between 80% and 90%) and those who joined taking the country as a whole. In our district we have the United States Steel Corporation, the Bethlehem Steel Corporation, or Bethlehem Mines Corporation, and the Erie Railroad operations, all captive tonnage, who have not signed the Code, so far as I know, up to date, and we have some commercial producers who have not signed. The only two of those commercial producers whose position I know, and that only from the press, was the statement issued that Berwind & White Coal Mining Company and Consolidation

Coal Company had joined with three other companies, the Pittsburgh Coal Company, the Island Creek Coal Company, and the Pocahontas Fuel Company, not to sign the Code. That affected some other producers. Whether it was designed for that purpose or not, I do not know. (690) When I testified that 80% had joined voluntarily in my [fol. 444] district, I was including in the total tonnage the mines of the United States Steel Corporation, the Bethlehem Steel Corporation and subsidiaries, the Consolidation Coal Company and Berwind & White. They represent less than 20% of our district. Those four companies represent about 12½% or 13% of the tonnage of my district.

When I testified before the House of Representatives that control is necessary for order in the industry, I anticipated that control would bring order in the industry. (691) By that I mean that we would organize under the provisions of the bill, set up our minimum market prices and put into effect our fair trade practices, with the resulting stability in production and distribution. By stabilization I mean stability of competition, that is, fair pricing of coals to sell against each other in common consuming markets, and the other trade practices that go with such marketing, the maintenance of proper wage standards, maximum hours of labor, and conditions of employment. I think this plan for fixing prices will accomplish the intended result. I think it is a practicable plan and one that will bring about a fair situation as to prices. I have always had the idea that price control was one of the essential elements of any scheme of regulation of the industry by the Government. Another essential element is the proposition that there might be production control. I think that is an essential element. It is not provided for in this statute because it was taken out. (692) I think price control can be made to function almost as a production control temporarily, and if the finding of Congress is later than it is necessary to amend it it can do so and price control will operate a sufficient length of time to develop that situation, in my opinion. It is my opinion that the present Act needs the amendment to provide for limitation of production, finally, if it is going to be made to operate successfully. I think it could be made to operate successfully for the time being, as it now is. I think the first price list will operate successfully for a considerable

period of time. I would say it would go along for a year. (693) I think the price fixing plan under the NRA code worked successfully for a year without control of production. There was only price control and wage control in the code. The first evidence of the NRA code breaking down was toward the end of 1934. It had been in operation slightly over a year when it began to be apparent that certain coal companies were determined not to carry out the provisions. With respect to my testimony before the Senate of the United States in February, 1935:

“So far as I know, no price fixing plan has ever worked unless it had back of it control of production, and under this bill, control of capacity as well.”

I still believe that to be a fact over a long period as a permanent plan. This is a four year Act and not a permanent plan. I did not tell Congress that I meant that no price fixing plan has ever worked except for a reasonable [fol. 446] period because at that time we were discussing a permanent bill without limitation on it. I wanted that statute to be passed. (694) I think my testimony there was in favor of the bill in principle. (695) I wanted the bill passed with the amendment I suggested in my testimony. (696) Those amendments did not include the elimination of the proration provision. I think we discussed the weaknesses of the provision that was in the bill. I am not sure. I think we discussed the improper grounds of the proration plan that was contained in that particular bill and I said they would not work and if put into operation would break down the Act. I wanted the statute that was up in June of 1935 passed although it had no provision for proration. I supported the bill because we could not get an agreement among the operators as to a method of production control and I suggested that we put into this statute a provision providing for a study of the question by the Commission itself, and let it make its report on that part of the measure to the next succeeding Congress.

In my opinion there are more available workers for the mines than the mines can give full opportunity to work.

(697) I would say that the flow of tonnage that was in effect for 1934 was satisfactory to me. It was unsatisfactory to many others. That is why we could not agree as

to what the normal flow was and that is really one of the questions that the Commission will have to give consideration to in its report to the Congress. I was willing to agree [fol. 447] to accept the 1934 basis of tonnage production in the respective districts as a basis of settlement of the plan. The middle district of Pennsylvania had lost a great deal of tonnage as compared to the rest of the country during the 20 years preceding that time. (699) With respect to my testimony before the Interstate Commerce Committee of the United States Senate that:

“We believe that the penalty for refusal or wilful failure to obey the code should be severe.”

I had reference to provisions then in the bill denying the violators the use of the mails and the right to ship in interstate commerce, Section 14, and the provision at that time for a maximum tax of 25%. I never understood the 25% tax to be a penalty. I understood it to be a tax, and as a penalty for a violator of the Code. The tax was one of the items I had in mind when I referred to penalties. (700) I do not know whether it is a penalty or not when reduced from 25% of the sales price to 15% of the sales price. I think there are operators who can afford to pay the 13½% additional tax and continue to operate outside the Code successfully where they have very low costs of operation. I do not know whether those operators are such a substantial number that they will destroy the effect of the Code. When I testified this morning that I believed the statute would be successful in stabilizing the coal industry I meant it. So far as the companies which can evade the Code, the amount of the penalty taken out of their sales realization [fol. 448] will take whatever advantage they have in cost, and their competition will be fair. It will add to them that much additional cost. I think the 13½% tax added to their cost will stop them from breaking down the Code and Act. (701) It is to stop them from breaking down the Code and prices fixed under it. The payment of the tax by those producers will make it fair to the extent that it will stop the producer who has to pay the 13½% tax from selling the coal at such a price as would break down the Code. I do not know whether such producers would have to charge as high a price as those who join the Code but they would take out of their realization such an amount

that it would put them down to or below cost. Such a producer could sell at a lower price but he has to take  $13\frac{1}{2}\%$  out of the price he gets, and that, of course, would affect his net returns on the sales he made.

My company just about broke even in 1934. We had substantially no profits. (702) The  $13\frac{1}{2}\%$  tax on all sales would be very effective. I think our realization for September was \$2 a ton. That would be 27¢ or 28¢ a ton. I do not know that our company will benefit from the imposition of this tax on those who do not join the Code. I think the entire industry will benefit by the Code. My company will only benefit in proportion as the industry benefits. We have concern about competition which is going to bring about tremendous losses, and we have tried out the competition, I think, since 1890.

[fol. 449] When I testified before the House that Pennsylvania has a natural market, I meant by that a market close-by, where freight rates ought to be substantially lower than from far-distant fields. It seems to me that the close-by field should supply the coal to those markets under any fair competitive circumstances. (703) That fair competitive provision would exclude far-away producers from selling into that market at dumping prices. I believe we should have a statute providing that what the law sets up and the Commission determines to be dumping prices shall not be charged. I do not know the volume, but the State of Pennsylvania does produce natural gas. I think West Virginia is the larger producer of natural gas. I think it is considerably larger, but I do not know. (704) I think every producer has a right to compete in every market.

I do not know of any companies that I believe will have to have a  $13\frac{1}{2}\%$  differential applied against them in order to make their competition with my company fair. I said that there were producers in the country that might be able to absorb the tax and still compete and I had in mind particularly strip operations in Illinois and Indiana. (705) So far as I know, only strip mines will require that a penalty of  $13\frac{1}{2}\%$  be imposed upon them in order to prevent them from competing with my company on fair terms. Only a small proportion of the production of coal in the United States is represented by strip mining. I would say [fol. 450] less than 10%. (706) So far as the mines of



Consolidation Coal Company are concerned, in my district, I have no fear of their competition, with or without the 13½% tax. With respect to Berwind & White I know their cost of production is about the same as mine, without the tax. I would say to the extent that they pay a greater *tax* than I do that they would injure themselves. (707) I do *now* know whether it would benefit me directly or not but I think it would injure that company.

(708) In my opinion a Federal statute is necessary in order to maintain prices that will prevent such wastes in coal mining as are incidental to low prices. Such a condition also can cause abandonment of mines, and probably the permanent loss of that portion of a field that has been opened up and developed, if it falls in or fills up with water, that particular portion that is opened up may be lost. In my opinion, unless prices are increased from destructively low levels, operators will cause waste. I do not believe that the industry is now at destructively low levels. I think some coal is being sold at very low prices but I do not think the general level has receded to destructively low levels. (709) I do not think it would do it until the effect of the contracts made in January, February and March of 1935 had passed out of existence, about April 1, 1936. Then, if there is no price list or no stabilization, I think prices will fall very low because that is when the bulk of the coal is sold. By that I mean to destructively low levels. I think those levels would be lower than in April, 1932, relative to cost of production. That is because cost of production is higher due principally to wage increases. I do not think that wage rates will stay up without the statute. They will be reduced if we go into next January, February and March and sell coal at 25, 30 or 35¢ a ton below cost of production. Then immediate wage cutting will begin and the wage scale will pass out just as it did before. (710) I think prior to the time that you get to the conditions in 1932 you will have a national strike of very serious proportions. We did not have a national strike of serious proportions in 1932. We were non-union at that time. We had a different situation prior to 1932 while we were on the way down. In the first place, a large proportion of the mines were on a non-union basis and others went non-union piece meal. (711) This time, about 95% of the mines and miners are organized into a

union, and a national strike will cause a much more serious stoppage of production and shipment of coal than any other strike there has ever been in the country.

By the Court:

West Virginia, Kentucky, northeastern Tennessee and Alabama, which were formerly non-union, are all now organized. The unorganized 5% consists in some so-called company unions, Harlan County, Kentucky, and also some mines in western Kentucky.

By Mr. Whitney:

We now have in existence a contract which runs into 1937, governing wage rates. With respect to whether operators will breach that contract if prices decline, I can only say that competitive necessity did bring that about in the [fol. 452] period between 1924 and 1927 in a large way in the union fields. (712) I think the breaching of the contract would be the inevitable consequence of low prices. My company did not violate our contract the last time. We carried it out, but we had a strike after the contract was concluded anyhow. I expect we would have to go non-union if the rest of the country did. I do not know whether we would have to violate our contracts. I would hope not. Even if the contract were carried out for 1937 I question whether many operators would renew it if we went into lower prices at that time. If they did not renew it in 1937 they would make a strike in 1937.

(713) The last authorized general strike that lasted more than a week of all the union fields in the country, I think, was in 1922. There were strikes affecting whole districts beginning in 1925. (728) The chief trouble with the coal business today is its excess capacity to produce and the surplus of offerings on the market of coal at continuously descending prices, which has been the situation from April 1, 1923. I think that bituminous coal carries an undue burden or proportion of the freight revenue of the carriers, the rates of which I think are higher than they should be. (729) When I testified in 1932 that "the chief trouble with the coal industry today is freight rates" I thought a decrease in freight rates would assist the industry in meeting competition from other fuels and sources of power, transportation being such a large proportion of the de-

[fol. 453] livered cost. I think our rates are loaded with an excess that is more than they should have compared with the cost of transporting other commodities. It was my opinion at that time, as I testified, that:

“It is my opinion that the most important thing that can be done to improve the situation in the industry is for the railroads to put the destination price of coal where it will successfully meet its present-day competitors, from whom they get very little traffic.”

I think that the fact that the rates were loaded at that time and have been further accentuated by the recent increase of 15¢ per ton is one of the very important things even today. I think the most important thing to be done today is to put into operation the Conservation Act (730) and that the organization of producers that will grow out of it can secure proper consideration of the freight rate structure.

I do not suggest that the Bituminous Coal Conservation Act of 1935 has any provision for conservation in it except as I have previously testified with respect to the waste that might be preserved. The only provision to that effect in the statute is the fact that receiving a price based upon cost will produce the elimination of some waste.

The receipt of a price based upon cost will represent about 15¢ or 20¢ a ton increase in price to my company. My judgment is that that would be fairly representative of the increase in my district, based on current prices.

(731) Since my testimony in 1932, general levels of freight rates have not been reduced. There have been reductions in rates covering large areas—for instance, the rates to Pennsylvania have been reduced from 12¢ to 25¢ [fol. 454] and the rates to Baltimore and inside-the-Capes at Baltimore have been reduced 13¢. Rates in New Hampshire and for inside-the-Capes delivery at Philadelphia and to certain points in New Jersey, including the City of Trenton have also been reduced since 1932. With the 15¢ increase effective April 1, 1935 I do not believe there has been any reduction in the average weighted freight rate from my district as compared with 1932. I think it would be somewhat higher. (732) If we received a freight rate reduction to the extent of 50¢ to \$1 per ton, I am not sure that it would do my company from three to six times as

much good as the Guffey Bill, measured in money. I think it might widen the markets for the distribution of coal to a considerable extent, as against other fuels. I still believe that freight rates are substantially too high on bituminous coal.

Whether an increase in our prices of 15¢ a ton will have any tendency to turn customers to competing fuels depends entirely on how the prices are set up. Our natural competitors are oil, natural gas and hydro-electricity. Hydro-electricity plants usually produce capacity. Competition with oil is something that fluctuates with the price of oil. The most serious effect of competition with oil that I can recall was during the period of lowest prices for bituminous coal, from 1929 up to 1932. During that time there was an importation of a great deal of foreign oil, principally from Venezuela, and we were successful in getting [fol. 455] Congress to levy an excise tax on imported oil of 1¢ a gallon (758). That stopped importations of crude oil (733) for industrial purposes very effectively and from that time forward the inroads made by oil competition on the seaboard have not been nearly so great. When prices were fixed under the NRA code there were more conversions—at least of the plants that I am familiar with—from oil to coal during 1934 than there were from coal to oil. Conversions from oil to coal or coal to oil depend a good deal upon the type of plant and equipment a plant has. A stoker plant cannot readily burn oil and such a plant has to scrap its stoker equipment, which is very expensive, and install tanks and other oil-burning equipment if it wants to buy oil for fuel. Anyone making that kind of a change must predicate it upon the assumption that he will get a price of oil low enough below that at which he can purchase coal to save his investment over the period of time for which he can contract for oil at that low price. I think the effect of inducing the Government to shut off Venezuelan oil from our market by a prohibitive duty was to stop the flow of cheap oil into the country and it may have had an effect on the price of domestic oil, but whether that is true or not I do not feel free to say absolutely. [fol. 456] (734) It may have contributed to the increase in the price of oil. I am not sure of that. Oil prices went up substantially in 1933. I think the increase in oil prices had something to do with the conversion from oil to coal

to the extent that when the price of oil did go up in 1933, oil was purchased at a low price and was limited in quantity and delivery. Specific amounts were delivered weekly to the plants that burned the oil and the oil producers would not give an additional amount of oil over that specified in the contract at the contract price at a particular utility plant. They were compelled to buy additional oil at the higher price and thus the general average cost of their fuel was increased. That was in Newark harbor.

(735) I think the delivered price of coal in the spring of 1933 in New York harbor of coal from the middle district of Pennsylvania would be about \$3.75 to \$4 a ton of 2,000 pounds. After the NRA started, our prices went up on that amount of coal about 60¢. The rule of thumb is something like 4½ barrels of oil to a ton of coal. Between the low point in the winter of 1932 and 1933 and after the NRA code came into effect, oil prices at tidewater in New York, I think, went to \$1.15. The lowest published price had been 45¢ a barrel. (736) In equivalents there was an increase of \$2.12 in oil to 60¢ in coal. I suppose that if coal prices are increased 15¢ a ton, there are places where [fol. 457] it will be desirable to buy oil instead of coal. The higher coal prices go and the lower oil prices remain the more conversions may take place. During the period of highest priced coal in the last four or five years, oil had gone up in a considerably greater ratio. I do not know whether the natural economy of oil production and distribution today will put oil prices up. They have gone down, I think, from \$1.15 to 95¢ in recent months. That is a reduction of about 17%.

Where oil increased more than coal prices, I have experienced a tendency from oil to coal in public utility plants where the plant itself is adaptable to rapid conversion. (737) I do not anticipate conversions from coal to oil on an increase of 15¢ per ton in coal prices. I think there were some plants converted from coal to oil under the NRA. I know of one plant in particular that converted from coal to oil during that period. At that time oil prices went up nearly four times as much as coal prices, from what I have heard to be the low point in oil. Under these conditions, there still was some conversion from coal to oil. (738) I think the great amount of the conversions I know about were from oil to coal. I think that had something

to do with the service and the fear that oil prices would go much higher than they did. I do not think oil companies will make contracts at low prices over very long periods of time. (739) In the particular plant I have testified with [fol. 458] respect to, if coal prices are restored to code levels and oil prices stay where they are, I do not think there would be any conversion from coal to oil since the delivered price of coal would be \$4.10 and that of oil higher. Wherever the coal price would be higher than the oil price and the plant would be equipped to use oil it would be attracted to the use of oil. Where it had to change its equipment to use oil it would be a matter of judgment whether it would do so or not.

(740) My acceptance of the Act does not wipe aside my desire to try to convince the Interstate Commerce Commission to reduce bituminous coal rates. I am anxious to do anything I can to improve the realization for coal at the mines of all districts, but that is because of my realization that I cannot increase the realization in my district without doing the same in other districts.

Redirect examination.

By Mr. Critchlow:

(742) The first strike in eastern Pennsylvania, in 1925, began when operators were unable to secure a revision of the wage agreement with the United Mine Workers and felt they were unable longer to compete with the low-priced coal coming from the areas that paid lower wages. They closed down their mines as union operations and began to reopen them as non-union. The first large company in our district that did that was the Rochester and Pittsburgh Coal and Iron Company. That company had an agreement with the United Mine Workers (the district agreement) [fol. 459] which lasted until March 31, 1927. It closed down its operations and went non-union because it could no longer compete with the prices being made by non-union operators. At that time, the State of Pennsylvania was not all organized. In our district, it was organized about 80%. The non-union operators in the district had usually paid the union scale, but had by this time gone to the \$5 basis. (743) That was part of the competition that caused the Rochester and Pittsburgh Coal and Iron Company to

go non-union. It also competed with the Smokeless area of southern West Virginia and the high volatile fields of southern West Virginia and eastern Kentucky, which were all on the low-wage scale basis. I think their strike began in February and it lasted over a long period of time. I think their production dropped from 3,800,000 in the year before to 2,100,000 in 1925. The strike affected them to the extent of about 1,500,000 tons throughout the year. The mines were closed down for a period of time and did not ship anything and then they gradually got men working and built their tonnage up over a long period of time. It takes a long time to go from union operation to a non-union operation after you have been unionized about 30 years. There were other companies in the neighborhood of the Rochester and Pittsburgh that had strikes at about the same time—the Buffalo and Susquehanna Coal and Coke Company was one. I cannot recall the others.

(744) The other strikes in my district began after the [fol. 460] contract with the union had expired in 1927. The operators refused to renew their agreement and opened up their operations in the latter part of 1927 on a non-union basis because they were in a position then that they had no place to go with their coal. Everybody else had gone non-union by that time, except Illinois and Indiana, with whom we did not compete very much. Our own companies went non-union at that time. Other companies that went non-union were the Pennsylvania Coal and Coke Corporation, the Clearfield Bituminous Coal Corporation, Barnes and Tucker, Madeira and Hill, Sonneman Shaft Coal Company and a great many others I cannot recall at this time. There were strikes at all those collieries. They shut down the current on July 1. There was no production in July, practically none in August, and very little in September. It began to increase a little in October and November. And I suppose on about March 28 we were on a basis of normal operation. We still had coal and iron police and deputy sheriffs and searchlights and all that sort of thing because the United Mine Workers never did call the strike off. (745) I suppose in that particular part of the strike we had probably 15,000 men out. As an estimate I would say probably 12,000,000 to 13,000,000 tons annual production was involved. The companies involved had contracts for the shipment of coal to points outside the State of Penn-

sylvania at that time. The strike stopped all shipments for a period of time and permitted only a very small proportion at other times. Gradually the companies secured enough coal to supply their orders, but in the meantime they either [fol. 461] lost their business or purchased coal from some other operator to fill their orders. In our case we produced 2,163,000 tons in 1926 and 1,284,000 in 1927. During the month of July we produced no coal at all. In August we produced 12,990 tons; September, 30,970 tons; November 67,000 tons; December, 89,000 tons; January, 96,000 tons; February, 95,000 tons; March, 113,000 tons. Then we gradually increased from that time on.

(749) Conditions in the States of Pennsylvania, Ohio and West Virginia growing out of strikes at that time were the subject of an investigation made by the Interstate Commerce Committee of the Senate in 1928 and the Senate Committee held hearings in our district.

[It was stipulated that the record of hearings before the Committee on Interstate Commerce of the Senate on the conditions in the coal fields of Pennsylvania, West Virginia and Ohio, 70th Congress, First Session, 1928, is the transcript of the testimony of that investigation. It was agreed that the Court had the right to take judicial notice of the record of these hearings.]

(750) There were strikes in the eastern Pennsylvania district in 1933, beginning in July, and affecting a large number of operations, through August and September, up until the time the wage agreement was made effective October 2. In that district there were about 15,000 men out [fol. 462] at one time. The western Pennsylvania area was much more greatly affected by the 1933 strikes than eastern Pennsylvania. I would say probably 75,000 tons a day were affected by that strike in the eastern Pennsylvania district. Those strikes undoubtedly had the effect of preventing the shipment of coal from those districts to points outside the State of Pennsylvania on the days the mines were closed down. We were shut down during that strike. (752) There were no strikes after that date except of a very local and minor character until 1935 when the strike of five days was called and the whole district was out. That was a nation-wide strike. I think it reduced production the last week we worked from 9,000,000 to a little over 1,000,-



000 tons throughout the United States. I suppose it stopped all shipment except that 1,500,000 tons.

(753) I think the fact that the Coal Conservation Act had been passed had a helpful effect on negotiations. It gave some assurance that there would be some stability in the industry and that you could afford to sign agreements with that assurance. Just what its full weight was I do not know. It was somewhat helpful.

(754) In 1932 our wage rate in my district was \$4.40 for the first quarter. After April 16 it was \$4 and for the last two weeks in December it was \$3.44. I cannot give you the figure of how many days a week we operated during that period. It was something around three or three and a half days a week, roughly. I think our district worked about 160 days. Our mines operated about the same time.

[fol. 463] (755) Recross-examination.

By Mr. Whitney:

I think the statement contained in the official report of the Department of Commerce, Bureau of Mines, entitled

"Coal in 1927" is substantially correct, as follows:

"The restriction in the union districts therefore was counteracted by an expansion of mining in the two largest producing States south of the Ohio, which had easiest access to the markets normally served by the northern States. While this expansion measured in tons was not sufficient to keep production at the high level of the early months, still it was adequate to supply amply all current demands, and between April and October only 13,100,000 tons were withdrawn from storage."

The strike had much greater significance in those States affected, and did stop the shipment of coal in interstate commerce, and caused customers to pay more for the coal that they had to get to replace that which was shut down.

As a matter of fact, the non-union mines were able to supply this tonnage because there was a declining ratio in the consumption of coal during that period. Otherwise it could not have been done.

## (757) Redirect examination.

By Mr. Critchlow:

During the period from 1924 until 1927 production was very rapidly declining in the eastern district of Pennsylvania. The reason for that decline was the absorption of the business of producers there, by mines working non-union, and on lower wage schedules, which quoted lower prices, and it was a case of constant price cutting in the markets that was taking away the business. The districts that improved their position most were West Virginia and Kentucky. (758) In 1923 the central Pennsylvania district produced 54,696,000 tons and in 1928 it produced 42,653,000 tons. In 1923 it produced 19.69% of the total production of the country and in 1928 it produced 8.06% of the total production of the country.

(1946) Referring to the colloquy at page 758 and following pages of the record, and in order to clarify his position, Mr. Whitney stated his admission to be that

(1947) "1. In answer to the questions there addressed to Mr. O'Neill, the answer would be:

" 'The competitive situation is such that the effect upon intrastate sales resulting from a minimum-price regulation for interstate sales, if such regulation were not applied to intrastate sales, would be to give such a competitive advantage to the intrastate seller that the interstate seller could not fairly compete with him, so that there would result a discrimination against the interstate seller.'

"2. That the other Government producer witnesses would each make the same answer in respect of the producing and marketing territories as to which they testified and as to the other areas of substantial production throughout the country to which they testified.

"Mr. Whitney stated that he made no concession as to the legal effect of such evidence upon the issues in this case but that he makes no contention that such evidence is incompetent or inadmissible as a conclusion."

[fol. 464] (762) HARRY O. FINDLAY, a witness called on behalf of defendants, first being duly sworn, testified as follows:

Direct examination.

By Mr. Critchlow:

I have been in the coal business over 30 years. I entered the Youghiogeny Coal Company in 1902 and occupied various capacities in that organization until 1912 when I was made general sales manager of the company. In 1915 I was made vice-president in charge of sales and other executive duties. I have been in that position with the company since that time and have had charge of the sale and distribution of all coals. I am also president of the Simpson Creek Collieries Company since 1924. Both of those companies own and operate bituminous coal mines. The Youghiogeny & Ohio Coal Company owns (763) and operates mines in western Pennsylvania, eastern Ohio, the middle district in Ohio and also in Boone County, southern West Virginia. The Simpson Creek Collieries Company owns and operates two large mines in the Fairmont field of northern West Virginia. In addition to the coal which those companies produced (a capacity of about 5,000,000 tons per year), they purchased and resold from 500,000 to 750,000 tons of coal a year. The Youghiogeny & Ohio Coal Company owns and operates coal storage docks at Superior, Wisconsin, and at Milwaukee, Wisconsin and also operates a dock at Bridgeport, Connecticut. Our coal produced in western Pennsylvania moves to the Great Lakes, to Canada, [fol. 465] and Ohio, New York State, New Jersey, Delaware, the New England states and to tidewater. Our Ohio coal, in addition to being sold in Ohio, is shipped into Pennsylvania, New York, Canada, the Great Lakes. From both of these districts we also ship a substantial tonnage of railroad fuel coal. The coal we produce in Boone County, West Virginia, moves for the most part to Michigan, the Great Lakes, Ohio and Indiana. (764) Those coals compete with practically all coals mined in the Appalachian area in one or more of the consuming markets. Shipments from our mines in northern West Virginia moves to the

railroads, to tidewater, to the New England states, New York, New Jersey and Delaware, principally.

It has never been our custom, nor is it the custom of the industry generally, to operate our mines unless we have orders on which to ship coal. We sell the greater part of our coal through our own sales organization. That organization secures either contracts or spot orders from time to time and when the customer makes requisition for shipment of coal the order comes into the general office or the branch office and is then conveyed to the mine, and when there are sufficient of these orders to operate the mine, the management of the mine calls the men out to work and starts the mine. That is the custom generally, I think, in the industry.

(765) The difference between sized coal and slack coal with respect to its marketability depends a great deal upon what kind of coal it is. Certain coal will have preference [fol. 466] on the part of the buyer as a domestic fuel and those are usually screened into the various sizes that the domestic trade requires. Other customers, such as the railroads, for the most part, use mine-run coal. Some by-product plants use mine-run coal. For the most part, it is the coals that are suitable for the domestic market that are screened. It is always more or less of a problem to balance our orders for sized coal against our orders for slack coal. When you have an accumulation of orders, for instance, for lump and egg and stove coal, and at that particular time may not have sufficient orders for slack to take care of the amount of slack that these sizes will make, the problem arises. The custom is under such a situation that you operate the mine and ship out your prepared sizes until such time as your mine tracks become blocked with slack. If that time arrives you of necessity have to close the mine down until you can dispose of that slack coal and clear your tracks. Slack coal produced under the conditions I have just described might become distress coal. You may succeed in getting orders for a part of it for prompt shipment and will not be able to sell the balance. (766) Coal of that kind by some operators is frequently moved out in order to clear the tracks to the railroad scales or some consuming point and there offered on the market at distress prices. Frequently, it is offered through ten or a dozen shippers or middle houses and the buyer under those conditions gets the impression that there is a great deal more coal being