THE GENERAL RATE INQUIRY

The Traffic World Washington Bureau

The more or less popular notion that the troubles of the railroads are largely due to the waste of transportation represented by the mileage of private cars of railroad officials, by the traveling done by railroad directors on their passes when they are not on errands for the railroads, and by their failure to have the most efficient engines and equipment, was attacked by Daniel Willard, president of the Baltimore & Ohio, and Samuel M. Felton, president of the Chicago Great Western, at the afternoon session, January 11, in the Commission's general rate inquiry.

Mr. Willard was supposed to have finished at the session of the preceding day, but he was recalled to answer questions which Commissioners Esch and Lewis had in mind and because Mr. Felton was not ready to proceed. In his formal statement, preceding the questions put by the two commissioners about private cars and passes, Mr. Willard had said that the troubles of the railroads could not be eliminated by the saving of lead pencils, and that economies that would result from better engines and better tracks could not be accomplished because such things, known to be desirable, call for expenditures of capital the railroads are not able to obtain.

Answering a question by Commissioner Esch, Mr. Willard said he could not say there was no loss on account of passes and private cars, but he was sure it was a small one. Passes, he said, were issued only to those entitled to receive them, and they were used on trains that had to be run, even if there were not passengers enough to fill them. As to private cars of officers, he said they were offices. His mail is delivered to his car, he said, and that is where he does his work when he is away from his office in Baltimore.

As to passes for directors, he said, it is the policy of the Baltimore & Ohio to get representative men to serve as directors, even if they are not heavy stockholders. He referred to Robert Garrett of Baltimore and John G. Shedd of Chicago as men of that character. They give the company the benefit of their business experience and render services of much greater value than the $20 they receive for attending the meetings of directors, he said. They are legally and morally responsible for the operation of the railroads even to the extent of having to defend themselves against indictments. Mr. Shedd, he said, comes from Chicago to attend the meetings of the board of directors and gets $20 for that service.

"I think he is the cheapest employe the Baltimore & Ohio has," said Mr. Willard. "He has a pass. Should he ask for the use of a private car, which he never has, I would think he had earned it."

Commissioner Lewis said that Commissioner Esch and he had asked the questions because there was a popular impression that passes and private cars and the salaries of high officials constituted a big drain on the revenues of the railroads. Mr. Willard said he knew that was a fact because he had been reading the newspapers and the magazines. He recalled, he said, that Theodore H. Price had written an article pointing to the saving of 17,000,000 freight car miles as a notable achievement of the Railroad Administration in the operation of the railroads under one control.

"It was an achievement and I am not criticizing Mr. Price for having written it," said Mr. Willard, "but when such things are put out the public should have an opportunity to appraise the relative value. Seventeen million freight car miles, it happens, constituted only three hundredths of one per cent of the total number of freight car miles in that year.

"The solution of the problems confronting the railroads is not to be accomplished by such economy. They are desirable, but they are not controlling."

In answer to suggestions for economy and efficiency, Mr. Willard said that studies of that kind are going on all the time and that the railroads avail themselves of all suggestions it is possible for them to use. To illustrate his point, he said that superheaters on engines were savers of fuel. One thousand of the twenty-six hundred engines on the Baltimore & Ohio are so equipped, he said. It would be desirable, he said, to equip the rest of them, but to attach a superheater costs from twenty-five hundred to three thousand dollars, and neither the Baltimore & Ohio nor any other average railroad has the money that would be needed. Brick arches and superheaters on all their locomotives would cause an additional saving of $750,000 for fuel alone, but they would cost $2,000,000. Enlarged bridges to enable the management to use the most efficient locomotives would also cause a large saving, but enlargement of the bridges would cost $8,000,000. The saving of one scoop of coal for each mile a freight locomotive steamed, he said, would mean $500,000 a year to the B. & O.

"We pay $50,000 a year for a supervising force to advise and bring about careful firing," said Mr. Willard. "We have been criticized for having too many supervisors, but we don't think so."

"To what extent do directors travel on passes when not on company business?" asked Commissioner Lewis.

"I don't know."

"Is it true that New York bankers have passes over practically all roads?"

"That is not true as to the B. & O.," said Mr. Willard.

Mr. Willard, in answer to questions by Commissioner Lewis, said he did not think that a reduction in the passenger fares from 3.6 to 3 cents a mile would result in such a stimulation of business as to make good to the railroads the loss that would result from obtaining a smaller sum for each mile. He said that if the business remained at the same volume as in the past year the reduction in gross revenue, he had been informed, would be $280,000,000. He was surprised that the sum was so large.

"How about 5,000-mile interchangeable books?" asked Commissioner Lewis.

"Why, that would be preference for the man who can afford to buy transportation 5,000 miles at a time instead of 20 miles when he is ready to travel," said Mr. Willard. "That's the kind of preference we have been trying to get away from, isn't it?"

Mr. Willard said he could not believe that the six-tenths of a cent a mile was holding back business.

"But it is said that six mills is driving business to automobiles," said Mr. Lewis, repeating one of the arguments of the traveling men.

"Then business isn't being held back," retorted Mr. Willard, "if the traveling men are using some other method of transportation."

As to a ten per cent reduction in coal rates, Mr. Willard said that would cost the Baltimore & Ohio Railroad $6,000,000 a year deduction from its net income, because 48 per cent of its tonnage was coal, which produces one-third of the revenue. He said the twenty-five per cent reduction in export rates on steel had caused no stimulation, but perhaps it was too soon to know what effect that would have on business. Mr. Willard said that last year the Baltimore & Ohio had paid out $8,000,000 for police protection to prevent thievery in its freight yards. That observation was made by him because the day before Mr. Aishton could not answer Commissioner Esch, who asked how much money the railroads had to pay out for policing freight yards because cities and states will not detail police officers for such duties.

Mr. Felton said the western railroads were now suffering from the greatest decline in freight and passenger business ever known. They are suffering relatively more than railroads in other parts of the country and the appearance of improvement in their net income is due, he said, almost wholly to deferred maintenance. Like Mr. Willard, he said, the public had been misled into error as to the effect of economies. It was impossible, he said, to estimate what could be accomplished by more efficient methods and economies in a given length of time, because economy and efficiency were matters of growth. To enforce his point, he said that if all the economies in the way of more efficient engines and better firing could be carried out the saving in one year would be only $174,980,000, instead of the billion or more that had been loosely estimated.

"I have no hesitation in saying that, in my opinion, railroad management is as vigilant and resourceful as in any other line of human endeavor," said the witness. He said that train and car loading had declined in this period of depression as in all others because shippers do not do business in as big units at a time like this as they do in more nearly normal conditions. He said he had hoped that business would pick up after January 1, but that the earnings on his road for the first week of the new year had not shown any improvement.

"In making the agricultural reduction that recently became operative the carriers have gone to the absolute limit," said Mr. Felton, "and no further reductions sufficient to have any effect on traffic can be made without reductions in costs except at the risk of threatening insolvency of the railroads. Capital expenditures should be made now, although there is comparatively little business. Economies should be planned, although they are not now possible, because they require capital."

Speaking of the rate of return after March 1, Mr. Felton said it was the opinion of railroad executives that there had been no change in conditions warranting a rate less than the six per cent now provided. He said there could be no greater blow to the carriers than a decision of the Commission fixing a rate lower than six per cent.

"Six per cent," said the witness, "should be regarded as an average. The railroads should be allowed to earn enough in good years to enable them to pay six per cent in poor ones."

In answer to a question by Commissioner Lewis, Mr. Felton said that an investigation by him showed that 15 railroads in the western district were paying section men and shop men at the rate of $60,000,000 more than the going rate of wages for similar labor in the section where they operate.

Byram on the Stand

Economies and bargains constituted a large part of the text used by President H. E. Byram, of the Chicago, Milwaukee & St. Paul, in his testimony at the morning session, January 13. He went at length into economies, apolgizing to the railroad men for mentioning things that, to them, might seem commonplace and trivial because they all knew about them and regarded them merely as small details of their daily work. But, he said, the public, apparently, did not know about them and that fact constituted justification for his mention of them. He said he was glad to present data to show that the railroads generally, and the Milwaukee in particular, for he could speak with authority respecting it, lost no time in adopting economical practices not confining their economy efforts to pay roll reductions to meet the situation created by the business slump. He compared 1920 with 1916, and also presented data for the first ten months in 1921, as to operating revenues and expenses. His chief effort, however, was to show that the general charge of wastefulness, often made against the railroad management of the country, was not true.

In 1920 the operating revenue was only $56,063,822 greater than in 1916, while the increase in expenses was $89,937,562, showing a loss in the net operating revenue, 1920 compared with 1916, of $33,873,000, he said. In the ten months of 1921 the revenue was $15,785,000 less than in the corresponding months of 1920. The reduction in expenses, however, was $31,191,000, so that the net operating revenues showed an increase over the corresponding ten months of 1920 of $15,406,000.

From 1916 to 1920, there was an increase in the pay roll of $60,666,000 or 127.7 per cent. During the first ten months of 1921 there was a decrease of $26,225,000 in the pay roll, a decrease of 27.8 per cent. That decrease, he said, was the result of most drastic efforts to bring expenses somewhere near the relation they should bear to the revenue.

But, great as the reduction in the pay roll was, it was only about equal to the decrease in the volume of business as measured by net ton miles, he said. All the usual measures of efficiency, such as increased train loading, increased car loading, decreased locomotive miles, ton-miles per ton of fuel, etc., were of no effect, Mr. Byram said, in the ten months of 1921, nor in the whole of 1920, to overcome the adverse tendency caused by the increased cost of labor and materials.

In answer to questions by Charles E. Elmquist, Mr. Byram went more into detail about the electrification of part of the Milwaukee road. He said an electric motor costs three times as much as a steam locomotive but it does three times as much work and its upkeep is only one-third that of a steam locomotive. The same number of men are used on a motor as on a steam locomotive.

The reduction of $30,000,000 in expenses, 1921 compared with 1920, was made possible, the witness said, in part by Labor Board decision No. 147, effective July 1. That gave relief to the Milwaukee to the extent of $3,000,000.

"In this connection," said Mr. Byram, "I would like to say that we have felt that the federal control of wages, while doubtless stabilizing in its influence on strikes and lockouts, has prevented the adjustment of wages to suit economic conditions by establishing inflexible rates of pay that during the past year have been greatly out of line with current rates paid in other neighboring industries and these high wages, coupled with the inflexible rules governing the method of performing details of work, particularly in shops and round houses, have greatly and unnecessarily increased the cost of railroad operation. As labor constitutes the greater part of operating expenses, this factor has been the principal cause of the decrease in net income of the railroads, and until the conditions are changed, it will have the effect of interfering greatly with the possibility of increasing net income by greater efficiency and economy in management.

"As an evidence of this we estimate that this railroad, if permitted to pay the going rate in outside industries, would have saved in the last year about $7,250,000 in its mechanical department and $1,750,000 for track labor alone in the maintenance of way department."

Through the co-operation of employes and officers, savings amounting to thousands of dollars are being affected on the Milwaukee, Mr. Byram said.

From the reclaiming of waste material alone $2,268,000 has been realized in the past two years, while during the same period more than $5,400,000 has been realized from the sale of scrap. This work is being carried out, Mr. Byram said, through committees composed of officers and employes of that road. In the ten months of 1921, he said, reclamation has saved the purchase of $687,802 worth of materials and scrap sales have amounted to $1,108,585.

As a result of the organization of such a committee two years ago to study the use of forms, blanks and general stationery, he testified that the company had been able to dispense with a large number of forms, thus reducing the amount annually expended for these purposes.

"To create greater interest in the economical operation of the property," he testified, "a campaign was inaugurated in 1920 towards the elimination of all waste, the reclaiming of all usable material, the use of second-hand material for repairs instead of new, the saving and segregating of all scrap material, and employes in every department were requested to furnish their superior officers monthly a letter outlining suggestions that occurred to them whereby a saving in material and labor could be accomplished. The employes were also asked to include in their monthly letters specific cases where economy had been practiced by them in labor or material, so that the benefit of any new idea could be passed around to other employes.

"The response received to the request above outlined was very satisfactory and thousands of letters have since been received from employes outlining the savings they have accomplished, and many good suggestions also are contained in their reports. On receipt of the savings letters from the employes, the local officers acknowledge their receipt and the employes are commended for any activity which has conserved material or labor."

Through similar efforts, increased conservation of fuel had been brought about whereby the average number of pounds of coal required to move a locomotive one mile in the freight service was 220 pounds for the first ten months in 1921, compared with 260 pounds for the year 1919.

S. O. Dunn Testifies

A progressive decline in railway development in the United States as measured by miles of line and cars and locomotives ordered and built in recent years was shown in testimony at the afternoon session by Samuel O. Dunn, editor of the Railway Age, based on statistics compiled by that paper and official reports of the Commission. This decline, Mr. Dunn showed, has been accentuated since the war and by 1920 there was an actual reduction in the mileage of line and in the number of locomotives and freight and passenger cars in service, but the decline in the annual rate of increase had begun long before the war.

In each of the last five years the mileage of railroad line abandoned in the United States has exceeded the mileage of new line built, Mr. Dunn said, and in 1921 the mileage of new line and the cars and locomotives ordered were less than in almost any previous year in railway history. The new railroad mileage built in 1921 was 475 miles, or less than has been reported in any previous year except 1920, when only 314 miles were built. In the four years ending with 1901 the new mileage averaged 4,524 miles a year; in the four years ending with 1905, the average was 4,974 miles; in the four years ending with 1909 it was 4,449 miles; in the four years ending with 1913, 3,314 miles; in the four years ending with 1917, 1,135 miles and in the four years ending with 1921, 549 miles.

For the five years, 1917 to 1921, inclusive, the mileage of railroad abandoned in the United States totaled 4,989 miles, Mr. Dunn said, of which 1,714 miles represented track actually torn up and the balance represented mileage on which operation was suspended. In 1921 operation was suspended on 1,409 miles, 217 miles of line were actually torn up, and authority was asked of regulating authorities to abandon 575 miles. The Commission during the year ending October 31 issued certificates authorizing the construction of 405 miles of new line and the abandonment of 702 miles. Mr. Dunn also quoted from Commission records, which showed a decrease in the total mileage of railroads owned in the United States from 254,251 in 1916 to 253,708 in 1920.

The number of locomotives in service on the railways of the United States increased 7,378 in the four years ended with 1913, Mr. Dunn said, but only 473 in the four years ended with 1917 and 617 in the four years ended with 1920. The number built for service in the United States and Canada in 1921 was 1,185, or less than the number built for the United States alone in any year since 1897.

The average number of locomotives built annually in the United States and Canada in the four years ending with 1909 was 4,319, in the four years ending with 1913 it was 4,137; in the four years ending with 1917 it was 2,126 and in the four years ending with 1921 it was 2,259. The number of locomotives ordered in 1921 for service in the United States was 239, which is the smallest number ever reported, except in 1919, when it was 214. The average number of locomotives ordered annually for 21 years has been 3,225, while the average number ordered annually during the last 4 years was only 1,384.

As to freight cars, Mr. Dunn showed that the average number built for the United States for the six years ending with 1904 was 123,256. In the five years ending with 1904 it was 111,824 and in the four years ending with 1921 it was only 65,823. The number built in 1921 was only 40,292, which is the smallest number ever reported since the Railway Age began to compile the statistics in 1899. In 1906 and 1907 alone, Mr. Dunn said, the number built was 516,667..

The number of passenger cars built in 1921 for use in the United States was 1,275, the smallest number ever reported except in 1920 and 1919, and the number of new passenger cars ordered during the year was only 246.

In response to questions by Commissioner Lewis, Mr. Dunn said that the statistics he had submitted showed that railroads were not keeping abreast of the growth of other industries. He also expressed the belief that if a normal demand developed the railroads would not be in position to meet it.

"Why haven't the railroads ordered equipment?" asked Commissioner Lewis.

"Because they have not had the money," replied Mr. Dunn, adding that if they go on as they have they will be unable to handle the business of the country.

President Chandler of the National Industrial Traffic League inquired as to what the railroads had done in the way of cutting out "loafing" on the part of freight cars and in cutting down the time a freight car is in transit. Mr. Dunn believed that to meet that situation would require large expenditures for improved terminals. Mr. Chandler also inquired as to whether the witness thought there had been any improvement in the speeding up of freight cars. Mr. Dunn said a large increase in miles per car day depended principally on improvement in terminals. Mr. Chandler asked whether the limit of efficiency in the handling of cars after they had been turned over to the carriers by the shippers had been reached, and Mr. Dunn said a great effort had been made to increase the car miles per day. He said he believed one great difficulty was that the railroads received cars from connections faster than they could handle them, and he referred to the use of embargoes and permits to meet that situation. He said the embargo and permit systems were used during federal control but that the movement of cars was not increased thereby.

Shriver and Mapother

Responding to a previous inquiry by Commissioner Lewis relative to the relationship of coal traffic to all freight traffic, Vice-President Shriver of the B. & O. submitted a statement showing that on the B. & O. in 1921 the per cent that coal and coke tonnage was of total tonnage was 52.6 per cent; that the total revenue from coal and coke traffic was $54,369,816 as compared with $156,739,118 for all freight, the per cent being 34.7 per cent. These figures were based on actual figures and estimates for part of December. For the eastern district of the United States Mr. Shriver submitted the following:

The tons of coal and coke traffic shipped during the 12 months ended September 30, 1921, as shown by the quarterly reports published by the Interstate Commerce Commission were as follows:

	Eastern District	United States
Tons—Anthracite Coal	78,828,205	80,949,376
Tons—Bituminous Coal	219,314,072	320,220,043
Tons—Coke	11,861,952	14,043,422
Tons—Coal and Coke	310,004,229	415,212,841
Tons—All Freight	557,234,514	1,022,912,207
Per cent Bituminous Coal is of Total Tonnage	39.4	31.3
Per cent Coal and Coke is of Total Tonnage	55.6	40.6

The revenue is not kept separate for coal traffic for either the Eastern District or the United States. Under the direction of the Interstate Commerce Commission, a special study was made of car load traffic for the month of April, 1920. Based on the results of this study, and taking account of the increase in rates in Ex Parte 74, the average revenue per ton of coal shipped is estimated to be $2.27, or, say, roundly, $2.25 per ton.

Applying this rate per ton to the bituminous coal tonnage for the 12 months to September 30, 1921, produces the following results:

	12 Months to September 30, 1921	
	Eastern District	United States
Tonnage of Bituminous Coal	219,314,072	320,220,043
Tonnage of All Freight	557,234,514	1,022,912,207
Per cent Bituminous Coal is of Total Tonnage	39.4	31.3
Revenue from Bituminous Coal	$193,231,662	$720,495,096
Revenue from All Freight	$2,014,329,653	$4,191,030,605
Per cent Bituminous Coal revenue is of Total Tonnage	24.1	17.2

Based on the traffic handled during the twelve months to September 30, 1921, which as a whole was a period of marked depression in business, the effect of a reduction of 1 per cent in bituminous coal rates would reduce revenues in the Eastern District approximately $4,932,000.

And the result of a 10 per cent reduction in bituminous coal rates would reduce the gross revenue and correspondingly lower the net revenues of the Eastern carriers (which for the twelve months ended September 30, 1921, were ($228,973,000) by $49,320,000 or 21.5 per cent.

To meet the loss in net revenue due to such a 10 per cent reduction in bituminous coal rates would require the production and movement of an additional tonnage in the Eastern District of approximately 46,000,000 tons.

W. L. Mapother, president of the Louisville & Nashville, speaking for the roads in the Southern district, said the railroads had been required to conserve their revenues to an undesirable degree. In the year ended October 1, 1921, the roads in the Southern district, he said, earned 1.8 per cent on their investment.

Rates cannot be reduced without a very material reduction in operating costs, said he, and the latter cannot be produced without the modification of the rates of pay and working conditions.

"Any arbitrary or premature reduction of the revenues of the carriers would certainly prove ruinous to the general business interests," he continued.

"Railroad transportation, more than any other single factor, served to make this country great and to create its unrivaled prosperity. The initiative and resourcefulness of the railroads produced for America the best and most economical transportation system of the world and, with a reasonable restoration of opportunity such pre-eminence can be re-established and transportation may again be made the cheapest commodity essential to our commercial progress, continuing, of course, as it is now, far below like costs in other countries."

Mr. Mapother said present conditions of business did not justify an optimistic expectation for an early commercial revival.

"Judged even by the net railway operating revenue of Southern carriers for the four months' period since the wage reduction, from July 1, 1921, to October 31, 1921, the yield on the investment falls about 33⅓ per cent short of that contemplated by law," he continued. "Had not the traffic movement in October been influenced by abnormal conditions the deficiency in the return on the investment for the four months' period since July 1, 1921, would have been even greater. The management of almost every road in the Southern region has given expression to a deferred maintenance in 1921, particularly in equipment. Had the full complement of maintenance been effected, the yield on the investment would have been still further reduced.

"I believe that thrifty and careful administration has been practiced to the maximum extent and it is quite evident that the exigencies of the transportation situation during the past year have forced the application of economy upon a scale which, if continued for any great length of time, must ultimately rebound to the detriment of the public interest."

Mr. Mapother said wages of railroad employes should be more flexible and in a larger degree determined by the management.

"In this way," he said, "railroad operations will more quickly adjust themselves to economic conditions and the ability of the railroads to pay a given wage under certain conditions will be given consideration in fixing wages. The standardization of railroad wages is wrong in principle. There is no logical reason why railroad labor should not be amenable to the law of supply and demand to the same extent as labor engaged in other lines of industrial endeavor. Aside from this discussion, however, the first essential to increasing the net income of carriers in the Southern region is a reduction in wages.

"While the greatly increased cost of fuel in recent years has been a substantial factor, the excessively high expenditures for labor have presented by far the most formidable barrier in the way of smaller costs of operation and incidentally the greatest obstacle against the realization of a satisfactory income under the transportation act. Labor costs, although measurably modified by recent revisions in wage schedules and agreements, are still overstepping all bounds of proportion in comparison with other charges and their absorption of gross earnings is yet substantially greater than was ever recorded under normal or pre-war conditions."

Fulbright Asks Data

At the request of shipping interests, put forward by R. C. Fulbright, typical railroads in each of the operating districts created by the Railroad Administration, during federal control, are to put into the record of the Commission in its general rate inquiry, data showing the going rates of wages and the rates of wages allowed by the Railroad Labor Board for similar work in railroad service. The request for such data was made by Mr. Fulbright after Samuel M. Felton had said that the Chicago Great Western had had steel cars repaired in contract shops because it had not facilities for repairing them and that the work was done for one-third of what it would have cost the company to acquire the facilities and do the work itself. He estimated that the saving, generally speaking, was about one-third. The steel cars were an exception to the rule.

"The higher cost in your own shops was due largely to the wage scale approved by the Labor Board, wasn't it?" asked Mr. Fulbright.

"Yes, sir, that is the fact," said the witness. "In our shops the work would have cost us on a certain line of cars $1,100 per car, while the cost in contract shops was $800."

The Chicago Great Western had only five engines repaired in contract shops, at a saving of thirty per cent. Mr. Fulbright asked other questions based on an assumption that if all the railroads had had all their repair work done in contract shops, there would have been as great a saving on all of them.

"Oh, no, do not understand me to say that there could have been a saving on all cars," said the witness. "In cases where it would have been necessary to send cars as revenue freight there would not have been such a saving as I have indicated. I meant the saving would have been great only where the contract shops were right at hand."

This discussion about the cost of making repairs to cars followed a general discussion by the attorney and witness of the condition of railroad equipment when it was returned to its owners at the end of government operation.

The cross examination of Mr. Felton was interjected in that part of the program because the remaining witnesses that are to be offered by the railroads were not ready to proceed on January 14. Before Mr. Felton was subjected to cross examination, Commissioners Esch and Lewis asked Mr. Mapother many questions about the possibility of economies through the unification of terminals. Mr. Mapother said the popular notion on that subject was erroneous. There are some places where economies can be achieved by the joint use of terminals, he said. In a majority of instances, however, there would be no economy simply because the terminals were built to serve the needs of a particular road, without reference to the necessities of any other railroad, he said.

Answering Commissioner Lewis, who inquired about the possibility of savings through a unification of terminals in Chicago, Mr. Mapother said that from what he knew of that city there could be no economy without an enormous expenditure of capital because the industrial districts of that city were so widely separated. With regard to St. Louis, he said the situation was different. There the industries are in a compact mass and unified operation, or a single terminal, was economical. He endorsed the general statement made by predecessors on the stand that economies can be achieved by the expenditure of great sums chargeable to capital account. He denied, however, the accuracy of the popular notion that the present machine can be operated so as to produce great economies.

Felton Cross-examined

The cross examination of Mr. Felton, conducted by Mr. Fulbright, Mr. Thorne, Fayette B. Dow and Glenn E. Plumb, by no stretch of the imagination could be called hostile, except, possibly, when Plumb, by the insinuating force of his questions, made it appear that mine operators in 1920 practiced extortion when they charged from $4 to $5 per ton for coal, for which, without any change in the wages, they are now selling for prices ranging from $2.10 to $2.20 per ton.

Mr. Fulbright asked the witness if, in his opinion, there was any public demand for increased mileage in the Western district.

"Two years ago I testified that I thought there was," said the witness. "I doubt now whether anything more is needed than the construction of railroads into parts of the country that are being developed. Where the government is carrying on a great reclamation project, railroads should be built to it. When a place like the Imperial Valley is opened there is reason for new construction. That does not mean, however, that existing lines should not be double-tracked and terminals enlarged. I mean only that there is not much of a public demand for new lines."

Answering a question about the effect of good roads, the witness said that they brought right to the railroad, so to speak, places which before were considered remote.

Mr. Felton subscribed to the Aishton proposition that when cars were on foreign lines they were deemed to be in good condition so long as it is possible to run them. When they get to their home lines, he said, they are found to be in bad condition. That difference in reports of condition he ascribed to the desire of a railroad that had a foreign car on its hands to use it to its limit because, whether loaded or empty, per diem must be paid. So long as a road can find employment for a foreign car it is kept in service. When there is no work for it to do, he said, it is hurried home so as to stop the running of per diem. Besides the rules of the Master Car Builders require only light repairs to be made to foreign cars. The Railroad Administration, he said, had a rule that repairs should be made only on running and draft gear.

"In the test period before federal control," Mr. Felton said, "the Chicago Great Western had a car supply so nearly balanced that it had a credit balance of $110,000 a year. During federal control only 25 per cent of its cars were on its own lines. When the slump in business came our cars came back to us in great numbers, but 40 per cent of them were in bad order. We made repairs to box cars that cost as much as $1,500. The Railroad Administration had a rule requiring foreign line car repairs to be limited to repairs to draft and running gear. We regarded that as a war emergency measure."

"They needed about everything, when they got home, except automatic couplers, didn't they?" asked Mr. Fulbright.

"Right," ejaculated the witness. After the cars came back home, at the end of fedral control, Mr. Felton said, the Chicago Great Western had a debit balance of more than $800,000 a year because, he said, its own cars had to stand on the sidetracks while it paid per diem for the use of cars of other ownership.

As to coal, Mr. Felton made declarations which show that the railroads in the west generally are buying coal and storing it because they believe there will be a strike of coal miners in the spring. They are paying from $2.10 to $2.20 per ton for it, in comparison with prices ranging from $4 to $5 per ton during the peak of prices in 1920. They began buying coal at those prices last fall. Contract coal is coming to them at prices higher than that. Some of the contractors have cut their contract prices so as to induce their customers to take more than the minimum specified in the contracts.

The benefit of these low prices, Mr. Felton said, will not show in the reports of the railroads until the railroads use up the higher priced coal bought ahead of it. Accounting requires that materials shall be taken into the accounts at what they cost, regardless of when they are used. In that same way the high priced materials inherited from the Railroad Administration were taken into account, not when they were bought, but when they were used. Western railroads, he said, had not had as large stocks of high priced materials turned over to them by the Railroad Administration as he understood had been given the eastern railroads.

Mr. Plumb was greatly interested in the observations of Mr. Felton about coal prices.

"You are buying coal for half what you paid in 1920," he asked the witness.

"Yes."

"The coal is mined at the same labor costs?"

"Yes."

"Were you approached by operators with a suggestion that if you would help them reduce their labor costs, you would get your coal cheaper?"

"I have no recollection of anything of that kind.

"To what do you ascribe the lower prices?"

"To market competition. To the play of the law of supply and demand," replied Mr. Felton.

In a bulletin to members on the general rate investigation, Mr. Benton, general solicitor for the state commissions, said the sub-committee for the Western district was "analyzing the statistical exhibits presented by the carriers, particularly relating to the Western district, and is preparing data for the purpose of indicating what the earnings of carriers in that district will be under normal conditions. Special attention is also being given to the carriers' contention of under maintenance of way, structures, and equipment. The committee will also prepare statistics indicating the necessity for a reduction of the passenger rates to a basis of three cents per mile, in order to permit a return of normal passenger traffic, and normal revenues therefrom.

"Owing to the fact that few commissions in the Eastern and Southern districts have entered appearances in this hearing, it has not been practicable to arrange similar committees for those districts. To a considerable extent, however, the work done by the committee mentioned will be helpful to the situation generally on aspects of the case which are common to all districts."

The sub-committee is composed as follows: C. B. Bee, Missouri, chairman; Harry Slater, Illinois; C. B. Ellis, Iowa; B. C. Smith, Minnesota; J. A. Little, Nebraska; V. E. Smart, North Dakota; J. K. Moore, Oklahoma; D. L. Kelly, South Dakota; L. R. Bitney, South Dakota; J. R. Moore, Texas; O. D. Hudnall, Texas, and P. E. Schreiber, Wisconsin.

Thorne Requests Figures

Figures purporting to show the relative efficiency of railroad men in the transportation service are to be put into the record of the Commission's general rate inquiry by George M. Shriver, vice-president of the Baltimore & Ohio, in charge of accounting. Comparisons are to be made for years preceding government control, during federal control and since. Shriver is to select the years. The comparison is to be made at the request of Clifford Thorne, attorney for agricultural interests. It was made during the course of a technical accounting and statistical cross-examination of Mr. Shriver by Mr. Thorne. The latter asked if such figures could be prepared. Shriver said they could, so Thorne asked him to do so. The cross-examination ran the gamut of property investment accounts, accrued depreciation on equipment, stock and bond issues, prices of materials and supplies, and the fact that there is no accrued depreciation account set up for way and structures.

The question of labor costs came up after more than an hour had been devoted to costs of materials and supplies, particularly coal and steel rails. Thorne did not limit his request for man-hour cost statistics, but, on the suggestion of Shriver, he limited his questions so they will cover only employes in the transportation department. That limitation was made because Shriver said that inclusion of the maintenance of way and shop men probably would distort the figures, because at present the railroads are not maintaining either their way and structures or equipment to the point which they should.

"But the figures will not tell the whole truth," said Shriver after he had agreed to furnish them. "On account of larger engines and cars, they make it appear that the same number of men are producing more net ton-miles when, as a matter of fact, the greater number would be due to the larger equipment."

Shriver absolved railroad labor from any deliberate shirking or sabotage during the war. He said the decreased efficiency in maintenance of way labor was due to the employment of old men and boys to do the work of the younger men who had been called to the colors. He said the Baltimore & Ohio had employed 15-year-old boys to do the work of men and had paid them the wages of men.

In the shops, he said, decreased efficiency was due more to the rules and working conditions than to the deliberate effort of individual workers to reduce their output. There was loss of time because of the arbitrary division of tasks between the different crafts. Before that division of labor took place, the witness said, a man and his helper would do a certain job of work from beginning to end. After the division, the man and his helper worked up to a certain point. Then they had to stop while another man and his helper did a part of the work. In that way time was lost and the unit cost of doing work went up.

"Your exception then is more to the rules than to the men," said Thorne.

That's true," said Shriver. "There has also been some picking up in efficiency because there are fewer jobs now than during the war and a man may think more of his job now than he did then. That is only natural.

"The figures for which you have asked may also be mis leading in this regard: There are fewer trains on the road now than there have been in any recent year. If they show that a man is producing more ton-miles in an hour than in 1920, it may mean nothing more than that, there being no congestion, he has been getting over the road faster than he was when the tonnage to be moved was greater. I don't think there was as great a loss in efficiency in the transportation department as there was in other departments, but for the reasons I have mentioned, the figures for maintenance of way and shop men would be more misleading than figures for the men in the transporta tion department."

Thorne devoted much time to the prices of materials and supplies at the end of 1917 and when the railroads went back into the hands of their owners, March 1, 1920. He called attention to the fact that the Director-General of Railroads claimed that the supplies he gave back to the railroads had a value greater by $268,000,000 than the supplies he received from them at the end of 1917, and that $48,000,000 of that sum represented an out of pocket loss to him. After Shriver had said that the prices of materials and supplies charged to operating expenses in 1920 and 1921 were the average prices, ascertained by taking the value of materials and supplies turned over to them by the Railroad Administration and their purchases in 1920, Thorne claimed that the railroads were charging into operating expenses more than $200,000,000 which they did not spend.

"Prices were higher in June, 1920, than in March, 1920." said Shriver, "so the charge-outs will be higher for the middle of 1920 than for the early part thereof, because prices are always the average of the stock, plus the cost of additions to it."

"I claim," said Thorne, "that $200,000,000 have been charged in operating expenses on account of increases in prices during government control, although not a dollar of the increase was borne by the railroads."

"But the Director-General got the benefit of the increases in the prices of scrap and rails sold during the time he had charge of the property of the railroads," said Shriver. "He took up rail that was carried in the accounts at $30 per ton and sold them for $65 per ton."

"We are going to make a similar showing as to many other items of supplies turned back to the railroads at the end of federal control," added Thorne.

Shriver said that the Baltimore & Ohio was buying and storing coal now, not with any idea of economy, but merely to be prepared in the event there is a strike in the spring. It is buying spot now at a cost of about $2.749. In October its contract price average was $2.74 and spot, $2.89, he said. A year before, the contract was $3.37, and spot, $6.37, but the witness said the times were abnormal.

As to probabilities for the future, the witness said that his hope and expectation were that prices would be considerably less. Reduced to figures, he said his hope and expectation was a decrease of 88 cents a ton within the coming year.

"I have heard that in the non-union fields spot coal is now selling at prices ranging from $1.55 to $1.75," said the witness. "The Baltimore & Ohio does not reach those fields, so it cannot obtain the benefit of such low spot prices." If it had to pay freight rates on that coal, he said, the cost would not be less than what it is paying for coal from mines on its own rails. It does not charge itself freight on its coal although the price should be increased by the cost of hauling it, he said.

A decrease in the prices of materials and supplies, amounting to 25 per cent in the coming year, Mr. Shriver said, might be expected. That would make a saving of $126,000,000 for the eastern railroads, he said.

Getting down to property investment and capitalization accounts, Mr. Thorne called attention to what he said was a fact, namely, that there was a difference of $4,000,000,000 between the property investment account and capitalization. He suggested that the difference represented increases in the property investment made from earnings, gifts and donations. The witness and Thorne could not agree on anything on that head, so Thorne went to the question of the return on investment. He took up the returns on investment put into a table by Shriver, from 1891 onward, showing, according to the figures, that the return on investment had been going steadily downward.

"Was not the net just before the war the greatest ever known?" asked Thorne.

Shriver would not agree to that. He said he had often heard Mr. Thorne claim that to be the fact, but he submitted that the return, if calculated on the whole investment, would not be the fact.

Shriver declined to accede to the suggestion that the compensation during federal control was greater than the railroads had ever earned. He contended that the return in 1916, the year when Thorne claims the return was the highest ever known, was only 5.92 per cent, and that in 1918 and 1919, the compensation paid by the Railroad Administration was equal to only 4.83 per cent. In 1920, the return from the two months of federal control, six months of guaranty and four months of private control under rates under Ex Parte No. 74, amounted to only 4.28, even should the government pay the maximum under the guaranty that the railroads hoped to obtain.

Cost of Government Operation

In the two years and eight months of government control and guaranty of railroads, beginning with January 1, 1918, and ending August 31, 1920, the government paid to the carriers or became obligated to them for $1,502,323,657 more than they earned for it. The government has not yet paid the railroads that much more. About $200,000,000 of the sum mentioned is still in dispute. The final payment to the railroads may be less than the sum mentioned. It will not be larger.

The foregoing was put into the record by Vice-President Shriver, in answer to questions by Clifford Thorne, at the afternoon session of January 16.

"It is accurate to say, therefore," said Thorne, after Shriver had finished reading the figures, "that, in addition to the increased amounts paid for freight during the war, the people of the United States have paid out more than a billion and a half dollars."

"No, that is not the way I would put it," said Shriver. "I thought I had made it clear that the sum is the amount which the government has paid or may pay to the railroads when the accounts are settled. I do not say that that is the money the people have paid in addition to the sums they paid by reason of the higher freight rates and passenger fares."

According to the Shriver statement, in 1918 the railroads under federal control were paid as compensation $897,419,000. They earned for the government only $642,162,000, leaving $255,-257,000 to be made up from the general funds of the government. In 1919, the railroads under control were paid $897,419,-000. They earned only $449,173,000, leaving $448,246,000 to be paid out of the general funds. In the first two months of 1920 the compensation amounted to $151,000,000. The railroads, however, earned only $51,959,000, leaving a shortage of $99,041,-000 to be made up.

In the six months of the guaranty period the guaranty payment should have been $483,750,000. There was an operating deficit of $216,029,667 in those six months, because the increase in wages was made retroactive to May 1, 1920. The total difference between compensation and earning in the 26 months of federal control was $802,544,000. The guaranty in lieu of compensation for the six months following the end of federal control, which the railroads claim but which has not been allowed in full as yet, is $483,750,000.

Should the claim of the railroads for the guaranty period be allowed in full, the total difference between earnings of the railroads and the compensation and guaranty would be $1,286,-294,000. The railroads, in the guaranty period, earned no net for the government. The government was responsible for their income, so it had to bear an operating deficit of the sum before mentioned, namely, $216,029,667. Adding that deficit to the difference between compensation and earnings for the 26 months of government control, gives the total of $1,502,323,657, also before mentioned.

There was really not much disagreement between Thorne and Shriver as to the meaning of that item of $1,502,323,657. Shriver remembered that it cost between $7,000,000 and $7,500,-000 to pay the expenses of the Railroad Administration that could not be charged to operating expenses. The $1,502,323,657 was not the whole cost of the operation of the railroads and other systems of transportation, because the government also lost some money in operating ships and accessorial services, not counted in the billion and a half. He, therefore, would not say that that sum was what it had cost the people of the United States, in addition to the increased sums caused by increased rates.

Aishton and Wettling Questioned

R. H. Aishton, president of the American Railway Association, and L. E. Wettling, statistician for the western group carriers, also were subjected to cross examination. The questions put to them by Messrs. Thorne, W. H. Chandler and R. C. Fulbright were for the purpose of clarification and not of the controversial character that were asked Mr. Shriver.

Commissioners Esch and Lewis, however, asked Wettling questions that were intended and did bring out his opinions as to the effect of different kinds of possible reductions in rates and the effect of the Commission's decision in the western grain rate case. He estimated that the Commission's order would cause a saving of 2 cents a bushel on grain and grain products, but doubted if that would be of much benefit to the farmer.

Commissioner Esch wanted to know what effect a one per cent reduction would have. Wettling said he could not see that that would help anyone, although it would hurt the railroads.

A 10 per cent reduction, about which Mr. Esch asked, would be felt by shipper and by railroad, the witness said. He said that if it were found that a 10 per cent cut could be made, it would be better to have it made on specified and selected commodities rather than on all commodities. He doubted whether any reuction could be made without endangering the solvency of the railroads.

As to whether there should be any reductions in passenger fares, he answered in the negative. He said that any possible reductions that could be made should be confined to freight. He doubted whether reduction in passenger fares would stimulate business.

Commissioner Lewis asked, as he had other witnesses, about the feasibility and desirability of issuing 5,000-mile interchangeable books. The witness said he was opposed to them, because such books would cause discrimination based, not on difference of service, but on the fact that the buyer of such mileage books could use them within a given time, while others would not have need of so much mileage. But the thing that struck him with most force was the practical impossibility of policing the use of such tickets. The effect of inability to police their use would be to put them into the hands of ticket scalpers and the general use of such books by passengers not burdened with any scruples.

After Commissioner Esch had finished with his 10 per cent reduction questions, the witness said he had just finished making a study of the relation of freight rates to the value of manufactured products of the United States. He found that the total wholesale value of manufactured products, in 1920, was $62,500,000,000. The gross freight revenues collected were less than 7 per cent of that value, he said. That $62,500,000,000 did not include any agricultural products that are consumed, such as potatoes, without going through any process of manufacture. Nor did it include fuel. When that value was brought up to the price the consumers had to pay he said the freight paid would probably be less than 3 per cent.

Willard Cross-examined

At any rate of return on the value of the property of the railroads, arranged in groups, less than six per cent, would be inadequate, Daniel Willard said, on cross examination by Clifford Thorne, at the morning session of January 17. They must earn six per cent, and half as much in addition, the latter to be used in making non-productive improvements, such as the separation of grade crossings, he said. Thorne took up about two-thirds of the time Mr. Willard was on the stand. When he had finished, Commissioner Hall, chairman of the division that is hearing the witnesses, reminded Mr. Thorne there was a schedule to be observed and that the Commission would proceed with the examination of witnesses on coal when the time for them arrived.

Mr. Willard reiterated what he had said about railroad earnings in the 1910 advanced rate case. The transportation law, he said, when Glenn E. Plumb and Mr. Thorne tried to have him construe his language in the way in which they understood it, had changed conditions. The recapture clause, he pointed out, does not permit a railroad to keep more than half the excess over six per cent.

The cross examination carried the witness clear across the index of financial operations, during the first hour and a half he was on the stand. For five or ten minutes thereafter Commissioners Esch and Lewis asked about the classification of trains practiced by the B. O., with a view to bringing out whether that classification results in economies of time and expense. Mr. Willard said it was the opinion of the B. & O. that it does. Twelve per cent of the trains, carrying probably considerably more than that percentage of the total tonnage are classified so as to practically eliminate intermediate switching. Shippers, the witness said, sometimes thought their freight was delayed unduly at points of origin because cars had to be held until enough have been assembled to make up a train. He said that, as a matter of fact, the elimination of intermediate switching resulted in time economy. Mr. Willard said the B. & O. had been classifying its trains in that way ever since he had been president, but that its practice had attracted some attention within the last few months, simply because the company had put out rather elaborate rules to be observed by employes in carrying out the scheme. . Live stock, he said, had always been handled in that way and the B. & O. was doing no more than endeavoring to extend that practice to all freight.

Mr. Willard, while on the subject of train classification and operating economies, volunteered the observation that nearly everybody seemed to attach undue importance to empty mileage and per diem. He said he believed he would handle foreign line cars just as he did now, even if there were no per diem, because it was necessary to get empty cars where they were needed. Eastbound tonnage, he said, on the B. & O., used eight cars while westbound used only five. Inclusion of empty cars in westbound trains that otherwise would have to go light was therefore an economy rather than an expense, in comparison with the running of whole trains of empties, he said. Unless the empty cars were moved west as soon as possible, he said they would accumulate and in a short time block every possible terminal in the east.

While on the subject of empty mileage and congestion, Mr. Willard said he favored a sliding scale of demurrage. When the car supply was plentiful he said he would have the demurrage rates low and in times of congestion very high, so that they would really be penalties assessed against the man who unnecessarily detained the cars.

"I don't believe in penalizing a shipper, if, in time of car surplus, he delays unloading a car for a day or two," said Mr. Willard. "In time of shortage, however, the penalty should be heavy so as to help the man who has not been able to get any cars.

"Is the sailing day used to any extent now?" asked Commissioner Esch. Mr. Willard said it was not, because the shipper seemed to think it caused a discrimination against him. Mr. Willard seemed to think it was an erroneous notion that was held by the shippers. President Chandler, of the National Industrial Traffic League, called the attention of the witness to the fact that salesmen, from cities which could ship every day, used that fact in the competition they met from cities which could not ship every day. Mr. Willard admitted that that might be a point in salesmanship.

While discussing the financial phase of the subect, Mr. Willard said that many railroads in the East had reached the point where the volume of outstanding bonds in relation to outstanding stock was so large that future financing must be done largely through new issues of stock, otherwise their bonds would be disqualified as securities which insurance companies and trustees might use for investing the funds in their care. One of the questions put by Mr. Thorne seemed to carry with it an implication that six per cent was too high a rate of return. It seemed to nettle Mr. Willard.

"When the government of the United States will not lend money to the railroads for less than six per cent with the best possible security, it hardly seems to me that an investor can be expected to accept stock with no guaranty back of it with no possibility of earning more than six per cent," said Mr. Willard.

He said the fixing of any rate less than six per cent would be a very serious matter for railroads that would soon have to finance refunding operations as to bonds which bore only 3½ to 4 per cent interest. The B. & O., he said, would have to refund $125,000,000 of 3½ per cent bonds in 1925. Glenn E. Plumb asked questions about that and brought out the fact that the profit and loss surplus of the Baltimore & Ohio is $21,000,000 and the corporate surplus $33,800,000. From that Mr. Plumb concluded that that railroad would have to make arrangements for refunding that debt. Mr. Plumb's questions were couched in argumentative form and were so long that Commissioner Hall suggested that the time for argument had not yet arrived.

In the course of his testimony Mr. Willard called attention to the fact that only twice in the last ten years had the return on railroad property approached or passed the six per cent point; that the railroads are well stocked with materials and supplies bought at comparatively high prices; that the railroad administration has not admitted liability for deferred maintenance; that the government turned back the engines at the end of federal control in substantially as good condition as they were when it took them over; that the government had done nothing to the passenger coaches in the way of maintenance when it held them; that freight cars were in decidedly poorer condition when turned back than when received; and that freight rates in this country are lower than in any other, except possibly India.

Commissioner Lewis was much interested in freight rates in foreign countries, and Mr. Willard promised to have data on that subject prepared. Mr. Thorne had asked some questions on that point but had stopped Mr. Willard when the latter tried to tell him that Harrington Emerson had the data upon which he had based his assertion. H. A. Scandrett, however, asked Mr. Willard the questions necessary to enable the latter to complete his answer on that subject.

President Chandler, of the National Industrial Traffic League, endeavored to obtain information about uniform express contracts and the results flowing therefrom, but Mr. Willard said he had not made any investigation of that subject. All he knew, he said, was that the contract had worked unsatisfactorily to the railroads. He could not explain how it came that express operating expenses after September, 1920, began falling off at the rate of $6,500,000 per month.

Four Vice-Presidents on Stand

After Mr. Willard had been excused from the stand, four traffic vice-presidents were subjected to cross-examination, chiefly by attorneys for shippers of particular kinds of commodities and Joseph H. Beek, executive secretary of the National Industrial Traffic League. The latter questioned Edward Chambers, of the Santa Fe, with a view, if possible, to having him modify the opinion expressed by him on direct examination that if reductions were to be made they should be made on specific commodities and not generally. Mr. Chambers adhered to the position taken on direct examination.

The vice-presidents other than Mr. Chambers were Benjamin Campbell, of the New York, New Haven & Hartford; C. R. Capps, of the Seaboard Air Line; and W. C. Maxwell, of the Wabash.

In a general way, attorneys for the shippers tried to make the traffic vice-presidents admit that all the reductions made by the railroads since August 26, 1920, other than those made in compliance with orders of the federal or state commissions, were made with a view to conserving revenues or increasing them by enticing back to the railroads traffic that had gone to carriers by water or motor trucks. H. W. Prickett, of the Utah Traffic Service Bureau, persuaded Mr. Chambers to admit that reductions on canned goods, tin plate and commodities for export, both east and west bound, were made with a view to increasing the tonnage and for no other reason. Mr. Chambers, answering J. C. Lincoln, of the New York Merchants Association, said he did not think the percentage increases had reduced the volume of long-haul traffic. Making allowance for all the adverse conditions, Mr. Chambers thought traffic was moving now as freely as ever. Mr. Lincoln was of the opinion, as indicated by his questions, that high-grade merchandise, since the percentage increases, had been moving to terminals in carloads and then was distributed from the western terminals instead of going from the eastern points of origin to western destinations in L. C. L. quantities.

Commissioner Lewis asked Mr. Chambers whether he desired to revise his estimate as to losses in revenue by reason of the ten per cent and western grain rate case reductions, but Mr. Chambers said there was no reason why he should do so.

The cross-examination of Mr. Capps was brief. He said he had no reason to revise any of the figures contained in his estimate of losses in revenue by reason of reductions in rates since Ex Parte 74. The only additional fact that he put into the record was that the grower of the watermelon, which was sold in Baltimore for $1, received 7½ cents therefor, while the railroads that hauled it to Baltimore received from 10 to 11 cents.

Mr. Maxwell and Mr. Chandler had a discussion about the inability of the C. F. A. carriers to obtain the full 40 per cent increase by reason of their differentials to New England. Mr. Maxwell would not admit that the C. F. A. lines, by reason of increases to Philadelphia, Baltimore and Norfolk greater than 40 per cent, had fully equalized the losses sustained by them by reason of their inability to realize 40 per cent for their rates to and from New England.

John S. Burchmore devoted much attention to the reasons actuating the carriers in making voluntary reductions.

"Have you thrown away revenues by making unnecessary reductions?" he asked. Before Mr. Maxwell answered that Burchmore asked him whether there was not a sound reason for every voluntary reduction.

"Yes, either to hold or to get new business," answered Mr. Maxwell. He also thought that perhaps the railroads had obtained more revenue than would have flowed into their treasuries if they had not made any reductions. Mr. Burchmore called attention to rate reductions covering many pages in the exhibits applying to a particular point, such for, instance, as Greencastle, Ind., and wanted to know if such reductions had not been made merely to line up the rates which, by reason of some peculiar quirk, had been thrown out of gear. Mr. Maxwell said that he didn't have at hand the memoranda which explained each reduction, so he would not undertake even to make a guess as to why six pages of reductions to Greencastle had been put into the exhibit under examination.

"It is my recollection," said Mr. Burchmore, "that, instead of answering the Commission's question as to whether rates should be reduced horizontally or by giving attention to particular commodities, you skillfully walked around that inquiry. Won't you please make an answer to it?"

"I'd never take a five-cent piece off of class traffic," said Mr. Maxwell, with emphasis. "We took about five million off dairy products. That is not going to give the farmer a cent nor will the consumer obtain any benefit from it. If we ever have five million to distribute we'd better give it to some of the industries that would be able to pass on the benefit to the consumer."

As seen by Jerome J. Hanauer, a partner in Kuhn, Loeb & Co., the problem before the Commission is insoluble. He said the part of the law that says railroads shall earn a fair rate of return on the value of the property devoted to transportation violates economic laws in so far as the mandatory parts require rates to be increased in times of depression when there is a minimum demand for transportation and decreased in times of great prosperity, when the demand is at its maximum.

"In enacting this law, Congress omitted to provide that the shippers of the country should furnish the traffic necessary to make the law effective," said Mr. Hanauer, who was called to the witness stand by the railroads to present the view of the situation held by the banker and financier.

"I think we are in agreement that section 15a should be repealed," observed Clifford Thorne, who had asked Mr. Hanauer questions to develop his opinions more fully than he had given them in his prepared statement.

"I would favor its repeal under proper conditions, as for instance a preamble setting forth that the repeal was being made, not because 6 per cent was deemed more than a reasonabl return, but because it had been found that the law would not work," he replied.

The fundamental proposition of the witness was that the railroads, in their quest of money for capital purposes, are in competition in the world's markets with all other classes of investments, and that it was utterly impossible to interest investors in railroad securities when other more lucrative and equally safe investments were offered. He said it was merely a natural selection between opportunities that was being made when investors chose forms of investment other than railroad shares or railroad securities.

"Transportation companies are subject to the same economic forces as any other business endeavors," said Mr. Hanauer. "They will have good years and bad years and, unless they have a guarantee (which I do not favor), they must be permitted to build up a substantial surplus in the good years, to enable them to survive in times of depression. Only thus can their credit be stabilized, so that they will be able to give to the country that efficient service, without which its industrial life will be stifled.

"Because the railroads perform a great public service, investment in their securities should be encouraged by a return at least as large and, if possible, more stable than that which can be obtained from any form of private investment having similar risks and similar opportunities.

"In considering the rate of return necessary to attract investment funds into railroads, it does not avail to be guided by the rate at which old outstanding issues of underlying mortgage bonds are selling or that at which a very limited number of new issues of some of the few still prosperous companies have recently been sold. To all intents and purposes, first mortgage bonds are a thing of the past. The large additional amounts required hereafter must be raised by junior securities, for which the obligation itself of the particular company will be the main reliance, and by the sale of additional preferred or common shares. It is many years since any new issues of shares have been sold. Few companies could today sell any large amount of common stock and not many more could sell preferred stock and, of course, these are those companies that have the least need of new capital. And yet if our transportation system is to be enlarged and improved, if outlying sections of the country are to have railroads, if branch lines are to be built to the farming districts, to factories and to mines, much of the needed capital should be, probably will have to be, found by the issuance of new shares. In some quarters it seems to be expected that railroad companies can go on increasing their debt forever without increasing the equity behind it, yet how generally it is understood that little encouragement would be given to the owner of a house or a factory by the holder of his mortgage if he suggested that the mortgagee should increase his loan for the purpose of making additions and improvements, without the owner establishing an additional equity by providing say one-third of the new money required.

"Investors in railroad securities, as, in fact, in any securities, do not consider them as a class; they study the situation of the particular security in which they are asked to invest. Unless the margin of earnings is sufficiently ample to safeguard that security during lean periods, the security is discriminated against. Some railroad common shares yield, at current prices and with current dividends, about 6 per cent and others as high as 9½ per cent per annum, all, however, with limited markets.

"During the war the government recognized the necessity of being very liberal with manufacturers and others engaged in providing necessary war supplies. All such were permitted to earn large profits, the government relying upon the income and excess profits taxes to cover part of these profits into the treasury. But all those engaged in these occupations were quite properly permitted, and did charge off out of profits before such taxes were figured, large amounts for the depreciation of their facilities due to the excess war costs, in addition to the customary charges for depreciation and depletion. These industrial concerns were thus enabled to set aside large reserves to tide over the difficult times which have come to them in the last year. Not so, unfortunately, with the railroads.

"While the government spent great sums to provide other war facilities, all capital expenditures on the railroads were charged to the companies. In particular, there were purchased at inflated war prices, locomotives and cars costing almost $400,000,000, which could today be produced for a much lesser amount, and from which the railroads could obtain no financial benefit until after the close of the guaranty period soon after which the business depression set in. No part of this cost was assumed by the government as a war cost and, therefore, the same must be borne by the roads and passed on eventually to the public.

"These conditions have resulted in the railroads being in a poor situation to meet the depression which ensued after the boom period following the armistice. In order to maintain their solvency, they were compelled to reduce maintenance to a minimum, a policy which would, if persisted in for a longer period, place the properties in such a position as to be unable to meet the requirements of commerce when normal conditions return. Not alone this, but the absence from the market of large purchases by railroads, the discharge of labor employed in railroad maintenance, and in the production of railway supplies further greatly depresses business, causes much unemployment in other lines, and results in an endless chain of stagnation.

"The railroads collectively use in normal times about 28 per cent of the steel capacity of the country and large percentages of the capacity of other fundamental industries; if steel mills or equipment factories are either shut down or reduced to part-time, the consequent unemployment and the resulting reduction in purchasing power, spread rapidly through the country and there ensues a further reduction in railroad earnings and the necessity for still more drastic retrenchment.

"Full consideration of the conditions affecting railroads and the relations of investors thereto, some of which I have endeavored to outline, lead conclusively to the decision that a liberal return on the value of the railroads is essential, not only to their prosperity, but to the prosperity of the entire country.

"The railroads are the arteries through which circulates the life-blood of the nation—transportation. If they are neglected so that they contract 'arterio-sclerosis,' the industrial body of the country may suffer a stroke of apoplexy."

Answering questions by Mr. Thorne, Mr. Hanauer admitted that the railroads could obtain money at more favorable terms than industrials. That, he said, was due to the fact that some of the old confidence in railroad shares and securities remains; also a belief that conditions would improve.

"What the railroads and the country need is stability," said the witness. 'We should not have to worry about whether the freight rates are going to remain for six or eight months. They should be more or less permanent."

Commissioner Lewis asked Mr. Hanauer as to the cost to the railroads of obtaining money. The witness said it was costing the big ones from 6 to 9.5 per cent.

It was his idea, he said, that a railroad should be permitted to earn and keep all it could under reasonable rates, so as to have a surplus in lean times. Money cannot be attracted to the industry, he said, if the earnings are limited in good times and there is no guaranty against poor times.

Railroads Finish

The railroad side of the Commission's general rate inquiry was completed at the afternoon session, January 18, with the cross examination of T. C. Powell, traffic vice president of the Erie, and S. O. Dunn, editor of the Railway Age. The editor and Clifford Thorne locked horns over net railway operating income, operating income, deductions of accrued depreciation, and things like that. They consumed a considerable amount of time before it developed that Dunn had not pretended to make figures of his own, but merely to quote the figures of the Commission as disproving the assertion of Thorne that, for the three years ended June 30, 1917, the operating income of the railroads was the greatest ever known.

Dunn had asserted that the figures of the Commission showed that to be an inacurate statement. After his direct testimony he asked the statistical bureau of the Commission to produce the figures. It made them and then sent a letter to both Mr. Dunn and Mr. Thorne to advise them that, in the estimation of the division, it would take too much time to make up the figures for three years ended with 1908 on the basis of the figures made for the three years ended June 30, 1917, for it to undertake such a task.

Therefore, when the cross fire of question and answer had been completed, the case seemed to stand that both Dunn and Thorne were right, the former as to what the figures of the Commission showed and the latter as to the fact that, when the calculation was made with depreciation deducted, as was the fact with the Commission's figures for the period ended in 1917, the rate of return for the three-year period ended in 1917 was greater than for any other three-year period, and also as to what the figures actually were and are.

The cross examination of Mr. Powell did not bring out anything new, other than that he had made an estimate of the losses in revenue resulting from reductions made since September 1, 1920, and that that estimate agreed almost exactly with the guess he had made as to the loss, when he was on the stand giving direct testimony.

When the railroads completed their testimony January 18 Commissioner Hall announced that the coal and coke program tentatively agreed on for the two following days would be as follows:

Applicant	Representative	Time allotted Hrs.	Min.
National Coal Assn	E. L. Ballard	2	..
American Wholesale Coal Assn	Ira C. Cochran	1	..
Northwestern Docks	Frank Lyon	.	20
Traffic Service Bureau of Utah	H. W. Prickett	.	30
Board of Railroad Commissioners of S. D.		.	30
Carnegie Steel Co.	Chas. S. Belsterling	.	30
Illinois Steel Co.	Chas. S. Belsterling	.	30
National Tube Co.	Chas. S. Belsterling	.	30
American Sheet & Tin Plate Co	Chas. S. Belsterling	.	30
American Bridge Co	Chas. S. Belsterling	.	30
American Steel & Wire Co	Chas. S. Belsterling	.	30
Kanawha River Improvement Assn	Francis B. James	.	20
Providence Gas Co.	Francis B. James	.	20
Buffalo Interests	Francis B. James	.	20
Associated Industries of Massachusetts		.	20
International Paper Co.	Wilbur LaRoe, Jr.	.	20
Illinois Coal Operators' Traffic Bureau	R. W. Ropiequet	.	20
5th & 9th Dist. Coal Bureau (Ill.)	P. H. Greenlaw	.	20
Illinois 3rd Vein Coal Operators	Geo. S. Monser	.	20
Colorado and New Mexico Coal Operators' Association	Albert L. Vogel	.	30
The Koppers Co.	Hugh F. Smith	1	..
Seaboard By-Product Coke Co.	Hugh F. Smith	1	..
Minnesota By-Product Coke Co.	Hugh F. Smith	1	..
Bethlehem Steel Co.	Hugh F. Smith	1	..
Chicago By-Products Coke Co.	Hugh F. Smith	1	..
Citizens' Gas Co. of Indianapolis	J. D. Forrest	.	20
Anthracite Coal Operators' Assn.		.	10
New England Paper & Pulp Traffic Assn.	C. H. Tiffany	.	15
Mathieson Alkali Works, Inc.	E. E. Clark	.	20
Indiana Coal Trade Bureau	Jonas Waffle	.	20

Coal Reductions

If railroad rates, in the opinion of the Commission, can be reduced, material cuts should be made in those covering bituminous coal and they should be made ahead of any other. That is what J. D. A. Morrow, vice-president of the National Coal Association, told the Commission January 19. The shippers' side of the Commission's general rate inquiry was begun on that day and Mr. Morrow was the first witness. The coal association, the witness said, did not pretend to know enough about the financial condition of the railroads to enable it to make an unqualified recommendation.

Notwithstanding his qualification, Mr. Morrow said inflated railroad rates must come down; also the wages of miners. The mine operators' price had been deflated, he contended. His estimate was that the pit mouth price of soft coal is now $2.13 per ton.

Translating the adjective material into concrete English, he suggested reductions in rail rates that would mean a saving of 75 cents a ton in the price paid by the first buyer. Wages, he said, had been reduced in the non-union fields and lowered in some of the union fields. Railroads are buying their coal now for about half of what they were paying in November, 1920.

Figures gathered by the association of which he is the vice-president, the witness said, showed that operators who produced 55,000,000 tons in the seven months between April and November, 1921, sold their product at an average loss of two cents per ton, and that the loss since October had been greater than that.

Morrow said the railroads, by the savings on their own fuel bills and the revival of manufacturing, would not lose anything by making a reduction as heavy as he had suggested. He did not advocate cutting 75 cents off every rate. His idea was to make the reductions so they would average that much. His figures, he said, showed that the mine operator is obtaining 48½ per cent and the railroads 51½ per cent of the price paid by the first buyer of the coal, after it has been hauled away from the mine.

"While we sincerely desire the financial position of the railways to be preserved," said Mr. Morrow, "we feel that substantial reductions in bituminous coal freight rates are a prerequisite to the industrial and business revival of the United States, upon which the prosperity of the carriers, as well as the nation at large, in the last analysis, must depend.

"We feel that a material reduction in these rates would act in some degree as a stimulus to business and, therefore, should reduce the operating expenses and tend to increase the revenues of the carriers.

"Since the facts which lead us to these conclusions apply with particular force to this basic commodity which enters so generally into the economic and social well-being of the nation, we suggest the desirability of heavy nation-wide reductions in the present level of bituminous coal rates."

Although not definitely suggesting what particllar cut in freight rates on bituminous coal the railroads actually ought to make, Mr. Morrow said that, through savings to the carriers today in cheaper fuel coal alone, as compared with a year ago and making allowance for the saving in freight rates on their own fuel coal, the railroads undoubtedly would be justified in making a reduction of 75 cents a ton.

Mr. Morrow cited figures showing that the railroads are paying considerably less for bituminous coal than for months past and quoted witnesses for the carriers before the Commission as freely admitting that their fuel costs for the coming year, particularly for the coal year beginning April 1 next, after wage readjustments are made in the unionized coal mines, will be considerably lower than for the past year.

"In the twelve months ended September 30, 1921, the carriers purchased a little over 130,000,000 tons of fuel coal," said Mr. Morrow. "The reduction in cost under the average for this period reached 90 cents per ton in October, 1921. With a further estimated reduction after April 1 next, the total saving to the carriers would approximate $215,000,000 under the railway fuel cost for the twelve months ended September 30, 1921.

"If this $215,000,000 saving in railway fuel cost should be translated into a reduction in freight rates on bituminous coal and allowance made for the saving to the carriers by reduced rates in the freight charges on their own fuel coal, the total saving to the carriers on their fuel coal costs would compensate for an average reduction of 75 cents per ton on the bituminous coal rates of the country.

"We are not suggesting 75 cents as an average reduction which should be made. We are merely pointing out the fact that by April 1, 1922, such a reduction in all probability would be fully compensated for by the lower fuel costs of the carriers alone, to say nothing of any other reductions in railroad operating expenses.

"The savings in the cost of bituminous coal to users, from substantial coal rate reductions, would add greatly to the purchasing power of the people," Mr. Morrow went on. "For example, an average reduction of even 60 cents per ton on bituminous coal would release nearly $1,000,000 a day to be spent in other ways. There is no need to enlarge upon the effect of such an addition to the daily purchasing power of our people, but it would be a powerful stimulus to business revival."

Going into the whole general effect of a cut in freight rates, on coal upon manufactured commodities, Mr. Morrow said:

"Lower freights on bituminous coal would reduce the cost of coal delivered at factories and should tend thereby to lower the production cost and market price of commodities. In this way the consumer would directly benefit.

"All railroads, also, would benefit in the reduced cost of materials, supplies and equipment which they buy."

As indicating the excessive freight charge on coal today, Mr. Morrow pointed out, from records of the carriers before the Commission, that the average rate per ton is $2.27, as against an average sales price at the bituminous mines of $2.13 a ton, or 14 cents higher than the cost of the coal. The freight rates, Mr. Morrow said, had advanced from 75 to 200 per cent and even more since 1914.

"The freight charge of $150 or $200 on a car of coal, which can be bought at the mines for from $50 to $100," said Mr. Morrow, "shows on its face the disproportion between the transportation cost and the market value of the commodity.

"Doubling the freight rate on a carload of motor cars, for example, from Detroit to Washington between 1914 and 1922, added only $15 or $20 to the price of a car selling at approximately $1,000 to $1,500. Such a condition makes no material difference to the customer who is ready to pay $1,000 for a motor car, but an increase of $50 or $100 a car on coal which is being sold at the mines for less than the transportation charge on that coal to destination, will quite obviously have a deterrent effect upon the consumer of that coal who expects to use it in industrial establishments."

To make plain the relation of the transportation charges to the present high price of delivered coal, Mr. Morrow stated that 48½ per cent of each dollar paid for coal ordered by the manufacturer goes to the operator, out of which all his costs must come, while 51½ per cent goes to pay the freight on the coal.

Going into the prospect of a lower production cost of bituminous coal, Mr. Morrow said:

"It may be urged that lower costs of coal should be obtained by reducing the wage scales at the mines. This is true, and we admit that inflation in the wages of the bituminous coal mining industry must be readjusted. In this connection, however, we must point out that wages have already been reduced to the approximate level of November, 1917, throughout the mining fields, which are not controlled by the United Mine Workers of America. In some of the union fields also wages have been reduced to that approximate level. In the remaining fields wages must be reduced on April 1 next, although to what extent the National Coal Association cannot attempt to say."

Mr. Morrow quoted from reports just obtained by the National Coal Association from operators with 55,460,000 tons of bituminous tonnage during the seven months from April 1 to October 31, 1921, showing that during those months there was an average loss of 2 cents a ton, while the reports for November and December showed even further losses.

Mr. Morrow pointed out that, while wage cuts in the union mines "would result in some lowering" of the mine price of coal, still the effect of such reductions already has been discounted in several fields through reductions in the mine price to meet lower wage and mine prices in competing non-union fields.

"The fact which must be recognized," declared Mr. Morrow, "is that high freight rates are the chief element today in the delivered cost of bituminous coal."

A qualified conclusion that rates on coal are unreasonable was placed before the Commission by George H. Cushing, managing director of the American Wholesale Coal Association, the second witness on coal and coke. His theory was that the rates in effect April 6, 1917, the day the United States declared war on Germany, were reasonable; that the trend of prices, generally speaking, warranted a fifty per cent increase in rates since 1917, and that rates more than fifty per cent over those of that day are unreasonable, because and to the extent they exceed that maximum of increase.

The witness called attention to the fact that last October the association filed a complaint asking for a return to the rates of April, 1917, as the basis for figuring rates for the present and future. He said the association holds the following convictions:

1. That coal rates are unreasonable to the extent that they exceed 50 per cent over those of April 6, 1917.

2. That export rates are unreasonable to the extent of $1 per ton. That is, that $1 per ton should be taken off.

3. That in any readjustment, the differentials, as between producing districts, that prevailed April 6, 1917, should be preserved.

4. That the reconsignment and demurrage rates of April 6, 1917, were reasonable and should be restored.

5. That demurrage rates are unreasonable to the extent that they exceed $2 per car per day.

By means of an elaborate calculation Mr. Cushing came to the conclusion that, based on the reasonable expectations for increases in coal tonnage, the railroads could stand a shrinkage of 13.87 in their gross revenues without placing in jeopardy, hereafter, the net operating revenue for which the railroads themselves contend.

That conclusion was based on calculations which enabled the witness to come to the conclusion that the railroads, during the five-year period that will end with 1925, have a right to expect to haul, on an average, 585,122,000 tons of soft coal annually. At existing rates, he said, that would yield them a revenue of $960,207,746 in excess of the amount they have estimated they would need to enable them to pay 6 per cent on the value of their property. That reasonable expectation of coal tonnage, he said, warranted the suggestion that they could stand a reduction of 13.87 per cent in their gross without placing their net, hereafter, in jeopardy.

On the general question as to whether there should be general reductions or on specific commodities, the view of the witness was that there should be reductions on basic commodities; that the reduction on coal should be as high as reductions on such commodities, and that the reductions on basic commodities should be greater than on any others. As to what constituted a basic commodity he said that, in a transportation sense, a basic commodity was a product of the earth in that form in which it was first offered, commercially, for rail transportation.

Mr. Cushing said that the present "service charges" on coal were allowed when economic conditions were vastly different from what they are now and for that reason alone should be revised downward.

According to the witness section 15A is redundant and should be repealed. That expression of opinion was made as part of the answer to the Commission's thirteenth question. The answer to that question and the reasons for the conclusions set forth are as follows:

First—The railways have a reasonable expectancy of a constantly increasing volume of business arising from the fact that the business of the country always having expanded constantly is likely to continue to grow.

Second—The railways are by law guaranteed against those fluctuations of earnings which formerly arose from competitive rates.

Third—This expectancy of steadily increasing business at stable rates is a sufficient guarantee for any business concern.

Fourth—Any guarantee, even though merely implied, of a fixed rate of return on the capital issues of a railway is, when it supplements stable rates on a steadily increasing volume of business, a second or duplicate guarantee which is not justified.

Fifth—That section of the law which exacts of the Commission that it stipulate any rate of return which the railways may make on their capital issues is redundant and should be repealed.

Since the Commission asked the opinion of witnesses on this subject and since we have given an opinion which runs counter to many statements made in answer to this question, we will claim our right to explain our answer. In our testimony we have attempted to show that the volume of business of the country—using coal as a basis—expands constantly. We have shown that even in so-called periods of depression, the recovery from tonnage declines is quite rapid. We have found that in periods of depression, the prices of commodities remain below "normal" much longer than does the tonnage. We have found that the earnings of commercial companies remain below normal much longer than does their volume of business. Our explanation is: When private commercial business of any kind is nearing the proportions of a boom, it requires but a slight increase in volume of sales to effect a big increase in price. This is particularly true if anything interferes with the supply. Conversely, when a period of boom is abating and when a downward turn of demand sets in, a slight decrease in volume of sales will cause a sharp decrease in price. That is, a private commercial enterprise is subject to a double fluctuation—in volume and in realization.

The railways, formerly, were subject to this same commercial rule. That was before the days of any regulation whatever. Since regulation, and particularly since the enactment of the Hepburn amendment to the interstate commerce act and of the transportation act of 1920, the railways have been wholly free of any rate fluctuations. Their earnings now fluctuate directly proportional to the volume of business; this is modified only by the character of traffic then moving.

Our explanation of our recommendation that the railways now have a sufficient guarantee in the assured stability of rates is:

1. We have shown that the railways may, on the average, expect a steady increase of business: that the tonnage will rise slightly above and fall slightly below this average for short periods only; and, that when rates are so fixed as to make the railroads prosperous during average times, proper adjustments to railway needs can be made by the management in abnormal and subnormal times.

2. Any specific guarantee of a dividend rate on capital issues is an additional or a second guarantee, and adds to the assurance of steady revenue from steadily increasing business a guarantee to railroad stockholders against bad management on the part of their officials or to the railroads as a whole a guarantee against any mistake being made by the Commission when it adjusts rates.

Our answer as a whole rests on our belief that the shippers of the country should not be asked to guarantee railroad stockholders against the bad management of their officials or to guarantee the railroads as a whole against any possible mistake of judgment on the part of the Commission.

ST. LOUIS TERMINAL BONDS.

The Terminal Railroad Association of St. Louis has been granted authority by the Commission to issue $65,000 of general mortgage 4 per cent bonds in payment for real estate in St. Louis.